

DOMESTIC VS. INTERNATIONAL SUPPLY CHAIN PERFORMANCE & INVESTMENT DISPARITY

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Report Highlights

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A 1% investment in international supply chain efficiency yields a far greater return than a 1% investment in domestic supply chain efficiency. Yet most Laggards' international investment is only about 1/10 of their domestic investment.

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88% of companies are engaged in global supply chains that involve international trade and global transportation— the most significant factors in total landed cost.

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The Leaders compete more effectively internationally. Those with Leader status realize annual savings of \$17 million.

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Supply chain operational readiness will encompass trade / transport rate and lane automation investments for many decades ahead.

The increased complexity and multi-party nature of global supply chains has led to longer lead times, more in-transit and multi-channel inventory, and the need to control downstream and upstream logistics. This, in turn, has contributed to increased supply chain management costs and has made international operational readiness the new imperative.

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Today's global supply chain requires more than basic track-and-trace functionality. It involves a control tower approach, a high degree of operational readiness, and synchronization of end-to-end activities, internationally, domestically, and combined.

International Operational Readiness - The Business Case

So what are the key drivers for focusing on improving operational readiness in the context of the complex global transport and logistics network? Our supply chain visibility research shows that the pressures of growing global operations and complexity (48%), and the need to improve speed and accuracy (45%), are top of mind.

In May 2014, Aberdeen, in collaboration with Logistics Management Magazine, surveyed over 230 companies with the goal of better understanding the challenges and opportunities associated with international vs. domestic supply chain management. And while all of these companies have domestic supply chains, the majority of them (180 companies) also have at least \$100,000 in international shipments annually. The increased global complexity has resulted in increased supply chain management costs. It is not surprising that, in light of global economic turmoil, many companies have turned to their supply chain organizations in search of ways to reduce costs, while enabling faster and more efficient responses to changing customer demands across all global logistics channels, supply chains, and partners.

Today's global supply chain is complex and our research shows that a typical international shipment is more than twice as costly as a domestic one. Managing a global supply chain requires much more than basic track-and-trace functionality. It involves using a control tower approach (see sidebar page 3), closing the loop between planning and execution, and synchronizing end-to-end activities — from raw materials to the delivery to the end customer. This research indicates that these changes will require higher levels of readiness beyond what we have seen to date in the domestic supply chain, and underscores the importance of

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operational excellence and readiness between all parties in the multi-tiered global supply chain.

Globalization and Complexity Demand Readiness - Yet International Investment Lags Domestic

Each international shipping leg can be paired with a corresponding domestic leg and this, in-turn, gives rise to increasing supply chain complexity (i.e. longer lead times and lead-time variability, or increasing numbers of suppliers, partners, carriers, customers, countries, and logistics channels). In addition, there are rising supply chain management costs (e.g. total landed costs, fuel costs, labor costs), as shown in Figure 1.

Control Tower Approach

Defined as a set of integrated processes and technologies that support a seamless flow of product from source to end consumer, regardless of global complexity, or sales and logistics channel preferences of customers

Figure 1: The End-to-End Domestic and International Supply-Demand Landscape



Source: Aberdeen Group, October 2014

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The Investment Disparity

Average Total Landed Cost of a Shipment:

- Domestic- \$1,618
- International- \$3,085

Average Cycle Time of a Shipment:

- Domestic- 4.3 + 1.3 day variability
- International- 21.6 + 6.3 day variability

Average Cost to Expedite a Shipment:

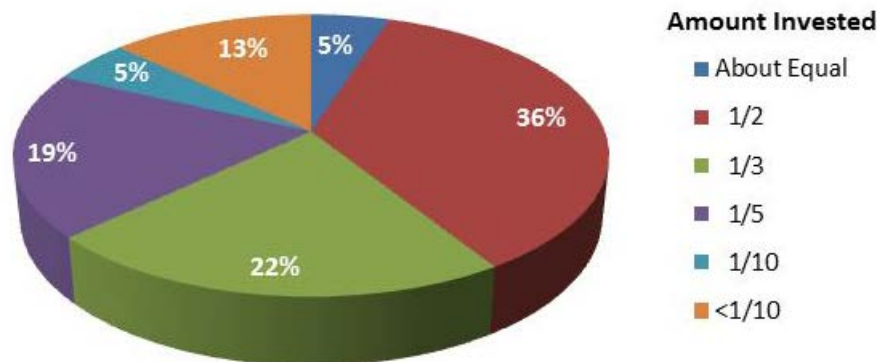
- Domestic- \$345
- International- \$459

A 1% investment in international supply chain efficiency yields a far greater return than a 1% investment in domestic supply chain efficiency. Yet most Laggards' international investment is only about 1/10 of their domestic investment.

Our July report on Supply Chain Segmentation and Cost to Serve (CTS), points to the need to leverage intelligence and systems to gain end-to-end visibility and control. Access to specific information related to product orders and physical shipments, including transport and logistics activities, and the statuses of events and milestones that occur prior to, and in- transit, must be both frequent and of good quality.

Beyond just execution in a timely manner, execution in an efficient and profitable way is key. Most companies have invested in the domestic supply chain and accompanying solutions, and many report double digit savings from those investments. Given the complexity of today's international supply chains (Figure 1), you would think that there would be an equal or greater investment that focuses on the uniquely international aspects of supply chain management and its solutions. This is not the case, however, for most companies (Figure 2).

Figure 2: How Much Have You Invested in International Supply Chain Solutions vs. Domestic Supply Chain Solutions?



Source: From 180 companies with more than \$100,000/yr. international shipments
Aberdeen and Logistics Management Magazine Survey, May 2014

Reducing costs by driving down excessive inventory, both staged and in-transit, and proactively responding to inbound and

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outbound events, has become critical for companies in today’s international supply chain environment.

Defining and Quantifying the Leader Advantage

Aberdeen used five key international capabilities to distinguish and determine Leader and Follower organizations (Table 1). The degree of automation and investment in these key operational management areas indicates the organization’s relative level of maturity and organizational readiness (see sidebar page 9) in today’s international supply chain:

Top performers use a control tower approach to leverage international capabilities

Table 1: Leaders Emerge, Automating International Supply Chain Management

Question: What capabilities do you currently use in the management of your international supply chain operations?

	Highly Automated	Limited Automation	No Automation
Export management	26%	33%	41%
Import management	20%	34%	46%
International transportation	25%	35%	40%
Supply chain visibility	22%	36%	42%
Free Trade Agreements	10%	25%	65%

↓	↓
Leaders	Laggards
Determined to be the companies that highly automate 3 or more international supply chain functions, (n = 30 companies)	Determined to be companies that do not automate 3 or more international supply chain functions, (n = 49 companies)

*Among respondent companies with more than \$100,000 in international freight spend per year.

Source: Aberdeen & Logistics Management Magazine Survey, May 2014

With respect to each capability, each of the 180 companies is either automated: highly (column 1), in limited fashion (column 2), or not at all (column 3). Hence the percentages - the degrees of automation - add to 100% across each row of the five key

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→ Operational Readiness is highly correlated to automation capability

These gaps in performance / investment are important, particularly in today's global market, where 88% of companies are engaged in international trade and global transport—the most significant factors in total landed cost

international capabilities. The relative rank or priority of focus and international readiness can be gauged by looking at the percentages by column, as indicated below:

- **40% of all companies**, on average, **have no automation** in one or more of the five key functions – the last column.
- **The Laggards** are determined by segregating out the least automated companies – those 49 companies from the third column that are mostly not automated. These companies may exhibit some automation in up to two capabilities but are not automated in at least three of the five capabilities.
- **The Leaders** employ high automation in three or more of the international capabilities. There were 30 companies that met this criteria and the relative focus and dominance they have in these areas is strong. We explore this in more depth in Table 2 next.

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The gaps in performance become even more acute as we focus solely on the Leaders and the Laggards from the highly automated and no automation groups, respectively, in Table 1 above. When we filter the responses for just the Leaders' and Laggards' degree of automation for the five international capabilities, we get the results in Table 2 below:

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Table 2: Automation Disparity - Leaders and Laggards

	Consistently high degree of automation among 30 Leaders ↓ Highly Automated	Consistently low degree of automation among 49 Laggards ↓ No Automation
Export management	76%	72%
Import management	69%	85%
International transportation	79%	86%
Supply chain visibility	72%	83%
Free Trade Agreements	37%	98%

*Among respondent companies with more than \$100,000 in international freight spend per year.
Source: Aberdeen & Logistics Management Magazine Survey, May 2014

The Financial Advantages of Operational Readiness Capabilities of the Top Performers

Many of the gaps in automation capabilities from Table 2 are linked to the need to both operate and control in a fashion that ties the international shipment costs and events into a view of total landed cost. To achieve accrued savings like the Leaders, focus on operational readiness across the five key international process areas.

When the rate and mode advantages of the Leaders are applied to the specific shipment by volume trade and transport lane, the savings are dramatic for both domestic and international shipments (see Table 3 below).

The Typical \$2.5 Billion Laggard:

- **\$3,084** is the average international shipment cost
- **This is about 2x** the cost of a domestic shipment
- About **26% of shipments** are international
- But these shipments make up **40% of Total Landed Cost**
- The Leaders **save \$670 per shipment**
- **THE IMPACT: \$17 million per year** based on 26,000 shipments

Based on average shipment rates for 95 companies with more than \$100,000 in international freight/yr. multiplied by the shipment volume by each trade / transport mode (for 35 companies with median volume of \$2.5B per year)

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Table 3: Annual Transport/Trade Cost Advantages of Leaders - \$17 Million in Annual Savings

					Annualized Trade/transport Costs			
	n=30 Leaders	n=49 Laggards	Leader Advantage	% Advantage	n=34 Shipments/yr	n=30 Leaders	n=49 Laggards	Leader Advantage
Domestic LTL shipment..... \$:	523	640	117	18%	29,685	15,525,255	18,998,400	3,473,145
Domestic TL shipment\$:	2,009	2,633	624	24%	43,790	87,974,110	115,299,070	27,324,960
Average Domestic Costs.....	1,408.63	1,827.80	419.16		73,475	103,499,365	134,297,470	30,798,105
International parcel shipment\$:	217	209	(8)	-4%	7,221	1,566,957	1,509,189	(57,768)
International container shipment (Europe – US)... \$:	3,757	4,995	1,238	25%	5,148	19,341,036	25,714,260	6,373,224
International container shipment (Asia – US)..... \$:	4,076	5,291	1,215	23%	8,812	35,917,712	46,624,292	10,706,580
All Other Volumes not above.....\$:	3,084	3,084	0		4,204	12,965,136	12,965,136	-
Average International Costs.....	2,749.29	3,419.85	670.55		25,385	69,790,841	86,812,877	17,022,036
	Annual Shipments & Transport/Trade Costs...				98,860	173,290,206	221,110,347	47,820,141
	Cost/Revenue for \$2.5 B company					6.93%	8.84%	1.91%

* Average Rates/shipment based on sample of 95 international companies shipping over \$100,000 Internationally

* Based on Typical Shipment Profile of \$2.5 B companies (n=34)

Source: Aberdeen & Logistics Management Magazine Survey, May 2014

Supply chain operational readiness will encompass trade / transport rate and lane automation investments for many decades ahead.

For the illustration of savings in the table we can apply the rate of savings to a typical median \$2.5 billion company (from the 34 we had in our study). The above rate advantages, when multiplied across and when applied to a typical set of shipment volumes, lead to significant annualized total cost savings:

The Leaders are more capable of competing internationally. Of note, the typical \$2.5 billion company can obtain Leader status and deliver over \$17 million in annual savings under the identical shipment profile of Laggards (see sidebar page 7 for more details).

Five Key Steps to Operational Readiness and Continuous Improvement

Today’s supply chain is transforming. Ensuring operating flexibility in the context of a growing international presence is a top pressure for 88% of companies. Top performers look beyond

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just information and are more operationally ready to compete. They leverage automation and optimization to link financial benefits /costs and investments across the five key international process areas. Other companies beginning the journey to top performer status must gear up to be internationally fit and operationally ready. In the sidebar, we present Five Key Best Practices for International Operational Readiness.

The historic focus on domestic supply chain efficiency is waning in light of globalization. The five step process of transformation and optimizing total landed costs is a long journey. Regardless of how long it takes, the goal of getting operationally ready has its rewards and international supply chain automation has proven worthy of investment. The ROI that automated solutions deliver, and the key benefits behind improving end-to-end supply chain intelligence and efficiency, culminate in the Leaders being more operationally ready than the Laggards.

Confronted with globalization and international channel convergence, the Leaders are pointing the way and embracing new solutions and automation that spans needs across import and export operations and total landed cost optimization.

In Aberdeen's [Strategic Inbound Report](#) earlier this year, and in the [parallel case study](#), we explored a similar five step process of continuous improvement. This report adds further depth and illustration to the ways that top performers build their end-to-end supply chain strategy. Those that follow these best practice steps can begin to balance trade and transport costs, as well as compare and manage total landed costs under various international and domestic supply chain restructuring options.

Five Key Best Practices for Operational Readiness

1. Assess upstream and downstream demand-fulfillment models
 2. Consider the investment and ROI requirements upfront
 3. Reengineer and streamline total landed costs in trade and transport processes
 4. Link demand and supply process with integrated systems - automate
 5. Embark on a journey of continuous improvement
-

If gaps are uncovered, and at least annually, repeat the Five Step Process above

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For more information on this or other research topics, please visit www.aberdeen.com.

Related Research

[Strategic Inbound Optimization: Foreign Trade Zones and Reshoring Increase](#); October 2014

[E-commerce Supply Chain: Follow the Leader to Success](#); September 2013

[CSCO 2014: Top Three Supply Chain Execution Priorities](#); December 2013

[CSCO Priorities under Globalization: Cross-Border Transportation Strategies](#); August 2013

[The Outside-in Approach to Order Fulfillment: Providing a Seamless Customer Experience](#); April 2013

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