2014 THIRD-PARTY LOGISTICS STUDY

The State of Logistics Outsourcing

Results and Findings of the 18th Annual Study

Capgemini Consulting

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Executive Summary

Current State of the 3PL Market

In the *2014 18th Annual Third Party Logistics Study*, survey results showed the continuing, positive overall nature of shipper-3PL relationships. Both parties view them as being successful, and shippers are seeing positive results again this year: an average logistics cost reduction of 11%, average inventory cost reduction of 6%, and an average fixed logistics cost reduction of 23%.

Shippers agree that 3PLs provide new and innovative ways to improve logistics effectiveness, and that they are sufficiently agile and flexible to accommodate future business needs and challenges. Despite ongoing churn in shipper-3PL relationships, in general shippers are increasing their use of outsourced logistics services, and shippers and 3PLs are now about equally satisfied (70% and 69%, respectively) with the openness, transparency and good communication in their relationships.

As suggested in last year's report, however, several ongoing factors are impacting progress toward the advanced end of the maturity model for shipper-3PL relationships. While gainsharing and collaboration with other companies, even competitors, to achieve logistics cost and service improvements would seem to be markers for advanced relationships, it seems these approaches are more preferred in certain shipper-3PL relationships, and less in others. There are some encouraging results that suggest a slight increase this year in outsourcing of strategic, customer-facing, and IT-intensive logistics activities. However, the continuing economic uncertainties in the global marketplace may continue to dampen significant growth and innovation in the 3PL sector.

Signs indicate that the "IT Gap" — the difference between the percentage of 3PL users indicating that IT capabilities are a necessary element of 3PL expertise (98% in the current study), and the percentage of the same users who agree that they are satisfied with 3PL IT capabilities (55%)—is stabilizing to some degree. But our research also finds that 3PL IT capabilities are becoming increasingly important to shippers, and that the shipper satisfaction ratings are also increasing.

Big Data

Global market intelligence firm IDC and other analysts declared 2013 to be the start of the Big Data era in supply chain. But shippers differ widely in their levels of interest, understanding and adoption. While other surveys have reported higher levels of participation, 30% of shipper respondents and 27% of 3PLs report they are planning or currently undergoing big data initiatives.

Shippers (97%) and 3PLs (93%) feel strongly that improved, data-driven decision-making is essential to the future success of their supply chain activities and processes. Interestingly, about half of each group disagree that Big Data fuels these decisions. In spite of this, shippers and 3PLs concur that Big Data can be leveraged in both functional and strategic aspects of supply chain operations, and to support visibility and make supply chains more agile.

Shippers also see opportunities to collaborate with their 3PLs using Big Data. About half (50%) see the biggest such opportunity in creating more agile and reactive logistics/supply chain strategies, followed by supporting end-to-end visibility.

Significant internal hurdles stand in the way of Big Data success, including a disconnect between internal supply chain and IT operations and a lack of supporting IT infrastructure. Additionally, just 57% of shippers and 47% of 3PLs indicate they "have access to timely and comprehensive data relating to supply chain planning and operations" within their organizations.

Survey results indicate that there is both great need and great potential for the use of Big Data by shippers and 3PLs in the supply chain. Ideally, Big Data can be leveraged not just to predict demand, but can begin to shape or change it.

Preferential Sourcing

The volume of cross-border trade has increased considerably, with extra-regional trade strongly outpacing intra-regional trade in many regions. That's driving many shippers to revisit sourcing and distribution decisions, an activity which requires balancing cost with opportunity, particularly in developing countries. Shippers must also account for multiple factors, including consumerism, lead-time constraints, risk management/continuity planning and portfolio differentiation. Yet another factor is the increase of preferential trade agreements (PTAs), which now number almost 300.

Basic management of global supply chain activity — the approach taken by many shippers — focuses on the physical movement of goods and viewing production and distribution as fixed variables. A more advanced approach accounts for additional complexities, referencing a more complete set of variables to optimize decisions at each point within the supply chain. Shippers undertaking advanced global supply chain management often find value in developing a mature Global Trade Management (GTM) methodology, which can be seen in their organizational structure, supply chain decision points and the completeness of their GTM tools.

The 2014 *Annual 3PL Study* survey found many shippers take a tactical, rather than strategic, approach to using GTM to manage global trade, entrusting GTM to more traditional departments, namely logistics (23%), compliance (13%) and procurement (12%). Advanced GTM users locate it in departments where it would play a more strategic role or consider it a cross-functional application. Basic users also typically apply GTM locally by region, while advanced GTM users use it globally to optimize sourcing decisions. Advanced users also consider PTA terms alongside other factors in evaluating locations, integrate their GTM applications with other tools and apply GTM early in the design and manufacturing processes.

Some 3PLs already partner with firms that provide detailed supply chain collaboration services and are well-positioned to support shippers in their GTM needs. Whether or not they include 3PLs, the increasing complexity of global trade requires shippers take a more comprehensive approach to sourcing and distribution decisions.

Smart Growth

With the new normal comes a new set of skills required of supply chain leaders, which are often quite different from those needed prior to and during the recession. With the growth of GDP in mature markets stalled at between 1% and 3%, supply now outstrips demand, and businesses and consumers are cautious and risk-averse. More than half of shippers (57%) and 3PLs (54%) in the survey agree that the upcoming seven to eight years following the recession will be a period of more difficult growth than the seven to eight years preceding it.

To succeed in this new normal, organizations need Smart Growth Leaders, a term coined by Korn/Ferry International. The company's research has demonstrated that today's supply chain leaders need to be accomplished in several dimensions of maturity and agility. Shippers rated their current leaders' capacities in these dimensions slightly higher compared with 3PLs' assessments of their own leadership.

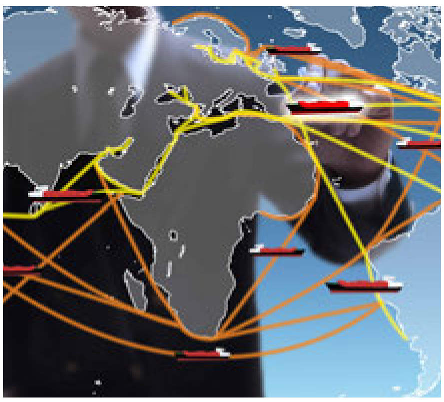
Both shippers and 3PLs have room for improvement when it comes to "new normal" leadership competencies, particularly in people agility and emotional maturity. Supply chain organizations, already suffering a talent shortage, need a sustained commitment to both skill-building and recruitment to ensure the smart growth leadership skills necessary to succeed in the new normal marketplace.

Shipper-3PL Relationships

The impact of the recession on shipper-3PL relationships remains unclear: Will they return to the path they were taking before, or is there a new normal in shipper-3PL interactions? The good news is that shippers continue to select 3PLs on their ability to provide continuous improvement (55%), experience in the shipper's industry (49%) and an established ongoing relationship (42%) as important selection criteria.

Shippers are also relying more on centralized sourcing in 3PL selection than they have in the past. Nearly half of shippers (48%) and 61% of 3PLs say centralized procurement functions are playing more or much more of a role in the selection process compared with three years ago. Conventional wisdom says centralized procurement emphasizes cost over quality, yet shippers appear to be seeking strategies to control costs while striving for optimal 3PL relationships by balancing centralized and decentralized sourcing decisions.

Mitigating concerns about the impact of centralization is the finding that the majority of shippers and 3PLs say that their relationships have grown more collaborative over the past three years. In today's markeplace it's important for shippers to strive for balance in sourcing decisions and seek strategic, collaborative relationships with 3PLs.



Strategic Assessment

Balancing the Bid Process

Many shippers are turning to initiating contract bids for new providers and shortening contract lengths in an effort to contain costs and leverage the competitive environment among 3PLs. However, neither of these strategies fosters solid foundations for mature, strategic shipper-3PL relationships.

Shippers need to understand the true cost of these tactics for their own businesses and their customers, including relational, procedural and financial switching costs. These must be considered against the benefits of long-term 3PL contracts and relationships, such as increased flexibility, access to specialized knowledge and capabilities, and the ability to engage in financial incentives and value-added services.

Exploring the Risks/Rewards of Africa

Fast-growing economies, an abundance of low-cost labor, a burgeoning middle class and a commitment to improve infrastructure and remove barriers to trade are just a few of the reasons international companies are increasingly investing in opportunities in Africa.

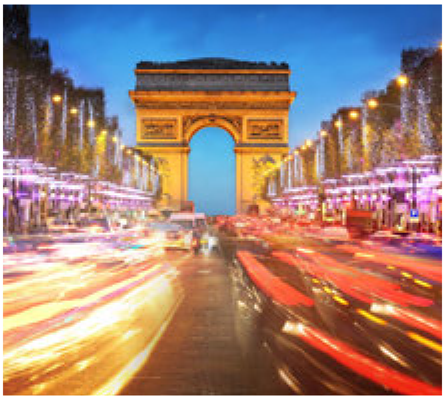
But operating in Africa also presents considerable obstacles and risks, including cumbersome and corrupt clearance processes, inefficient logistics and significant deficits in physical transport infrastructure. Nigeria is just one example of the dichotomies, presenting rich opportunity for industries such as aerospace, telecom and consumer goods while still wrestling with issues of infrastructure and security. Opportunities are ripe for those with an appetite for making logistics processes more standard and efficient.

Opportunities in Omni-Channel

Today's demanding consumer expects a seamless experience across retail sales channels, as well as individual recognition and reward. This has retailers, saddled with silo'ed systems built for single channels, scrambling to attain omni-channel functionality.

Core to the back end of this effort is optimizing inventory through virtualization and flexible distribution strategies, enabling retailers to quickly locate and deliver inventory according to dynamic market demand, regardless of channel. Services such as locating inventory from the store floor, enabling store pickup of web orders and even home delivery enable retailers to satisfy consumers and reduce markdowns and inventory write-offs.

Many 3PLs offer the critical experience, capital expenditure, time, and resources essential to helping retailers attain their goal of a single, seamless, agile omni-channel network.



New Thinking on 3PL Talent

Successful inclusion initiatives give organizations including 3PLs a distinct competitive advantage, broadening the look, feel, experience and collective of knowledge of 3PL talent. Yet many organizations struggle with how to approach inclusion. Organizations that Think Globally, Act Locally take into account the needs of diverse employees, clients and suppliers in local regions while keeping corporate goals in mind.

Global Novations (a Korn/Ferry International Company) defines diversity as everything that makes an individual unique: traditional definitions as well as generation, socioeconomic status, education, thinking style, and more. Global Novations research shows that companies who are both diverse AND inclusive out-perform companies who are not.

Current State of the 3PL Market

Satisfaction Continues, but Obstacles Impact Maturing of Relationships

As the 3PL industry has matured, 3PLs have continually enhanced their ability to drive innovation and create value for their shipper customers. At the same time, shippers have significantly refined their effectiveness as buyers and users of outsourced logistics services. The *Annual 3PL Study* has documented this evolution, as well as the growing ability of both shippers and 3PLs to effectively manage their relationships with one another.

The survey portion of the *2014 18th Annual Third Party Logistics Study* reveals that both shippers and 3PLs continue to view their relationships with one another as being successful. Shippers agree that 3PLs provide new and innovative ways to improve logistics effectiveness, and that they are sufficiently agile and flexible to accommodate future business needs and future business challenges.

As suggested in last year's report, however, progress toward the advanced end of the maturity model for shipper-3PL relationships seems to have met some modest headwinds. This year there are some encouraging results suggesting a slight increase in outsourcing of strategic, customer-facing, and IT-intensive logistics activities. The continuing economic uncertainties in the global marketplace, however, may continue to dampen significant growth and innovation in the 3PL sector.

While some of these findings are consistent with recent *Annual 3PL Studies*, readers are cautioned when comparing results from this year with those in past reports due to significant changes in this year's respondent base. Please see the About the Study section of this report for more information on the research process and the study respondents.

3PL Usage Reflects Global Economic Trends

Global markets continue to be impacted by volatility in many economies throughout the world, driving highly variable and sometimes sluggish demand for outsourced logistics services. Figure 1 provides global 3PL revenues by region for 2011 and 2012 from Armstrong & Associates, plus a summary of percentage changes reported for 2011-2012 and 2010-2011.

As indicated, global 3PL revenues of $676.9 billion (US dollars) reported for 2012 represent an increase of +9.9% over 2011. This represents the weighted-average of significant increases in Asia-Pacific (+23.6%) and Latin America (+12.4%), modest increases in North America (+ 6.7%) and Other Regions (+6.4%), and a small decrease in Europe (-2.6%). In comparison with the percentage growth in global 3PL revenues of +13.7% reported for 2010-2011, however, the +9.9% change from 2011 to 2012 represents a decrease of about 1/3 from the growth percentage reported in the previous year.

Latin America and Other Regions also saw slowing growth, from the robust +43.6% and +54%, reported respectively, in 2010-2011 to just +12.4% and +6.4% in 2011-2012. Overall, this reflects shifts in global economic activity and related freight movements that have caused some "cooling off" of the growth in 3PL revenues that was reported one year ago in some regions of the world. Global economic conditions may be responsible for the somewhat slower growth in 3PL revenues associated with emerging and developing markets.

According to Dr. William L. (Skip) Grenoble, Executive Director, Center for Supply Chain Research and Senior Research Associate for The Smeal College of Business, Penn State University, "Business and government organizations are highly aware of the added value that the effective use of logistics outsourcing can have on logistics and supply chain effectiveness."

Figure 1: Global 3PL Revenues Rise for 2011-2012

Region	2011 Global 3PL Revenues (US$Billions)	2012 Global 3PL Revenues (US$Billions)	Percent Change 2011 to 2012	Percent Change 2010 to 2011
North America	$ 159.9	$ 170.6	+ 6.7%	+ 7.2%
Europe	160.4	156.2	- 2.6%	- 2.8%
Asia-Pacific	191.1	236.2	+ 23.6%	+ 21.2%
Latin America	39.5	44.4	+ 12.4%	+ 43.6%
Other Regions	65.2	69.4	+ 6.4%	+ 54.0%
Total	**$ 616.1**	**$ 676.9**	**+ 9.9%**	**+ 13.7%**

Source: Armstrong & Associates, 2013.

3PL User Spending Patterns on Logistics and 3PL Services

According to this year's study results, 3PL users report an average of 44% of their total logistics expenditures are related to outsourcing. This compares with an average of 39% reported last year, and 42% reported in the previous year. Total logistics expenditures include transportation, distribution, warehousing and value-added services. Considering Armstrong & Associates' estimated and projected increases to global 3PL revenues cited in Figure 1, these percentages support the finding that global markets for 3PL services continue to expand.

Increased Use of Outsourcing Outpaces Insourcing

One consistent finding throughout the 18 years of *Annual 3PL Studies* is a relatively predictable "ebb and flow" of outsourcing vs. insourcing in the 3PL marketplace. Sometimes customers increase their use of outsourced logistics services (either in total or in terms of individual activities outsourced), and at other times they decide to insource some or all of their logistics needs. In general, however, movement toward increased outsourcing generally outpaces movement toward insourcing.

- **Outsourcing:** 72% of shippers are increasing their use of outsourced logistics services this year, which is up slightly from the average reported in recent years. Slightly more, 78%, of 3PL respondents see an increase in outsourcing among their shippers.

- **Insourcing:** Generally, insourcing remains less prevalent; 23% of shippers report they are returning to insourcing at least some of their logistics activities, while an average 36% of 3PLs say that some of their customers are returning to insourcing.

- **Reducing or Consolidating 3PLs:** The ongoing trend toward strategic sourcing by many shippers is evident in the number who report they are reducing or consolidating the number of 3PLs they use, an average of 56%. This is consistent with previous years' findings and provides continuing evidence that more than half of shippers place a priority on tightening up their rosters of 3PLs.

So while rates of change to outsourcing/insourcing appear to remain stable, the Armstrong & Associates data supports a key finding of this study: That 3PL users are generally increasing their use of outsourced logistics services.

Figure 2: 3PL Services Deliver Measurable Benefits

<table>
<tr><th colspan="2">Results</th><th>2013 Study</th><th>2014 Study</th></tr>
<tr><td colspan="2">Logistics Cost Reduction</td><td>15%</td><td>11%</td></tr>
<tr><td colspan="2">Inventory Cost Reduction</td><td>8%</td><td>6%</td></tr>
<tr><td colspan="2">Logistics Fixed Asset Reduction</td><td>26%</td><td>23%</td></tr>
<tr><td rowspan="2">Order Fill Rate</td><td>Changed From</td><td>58%</td><td>66%</td></tr>
<tr><td>Changed To</td><td>65%</td><td>68%</td></tr>
<tr><td rowspan="2">Order Accuracy</td><td>Changed From</td><td>67%</td><td>68%</td></tr>
<tr><td>Changed To</td><td>72%</td><td>69%</td></tr>
</table>

Source: 2014 18th Annual Third-Party Logistics Study.

Shipper Experiences with 3PLs: Measures of Success

Once again, a distinct majority (90%) of shippers report that their relationships with 3PLs generally have been successful. Interestingly, but predictably, an even higher percentage of 3PLs (97%) say their relationships with shippers have generally been successful.

Figure 2 summarizes the tangible benefits shippers report from their use of 3PL services, including average improvements in order fill rate and order accuracy. The average logistics cost reduction reported by shippers was 11%; the average inventory cost reduction was 6%; and the average fixed logistics cost reduction was 23%. These figures are down modestly from those reported in last year's study; this is not unexpected, since both shippers and 3PLs have been working earnestly to attain these benefits.

As with past years, just over half of shipper respondents (55%, compared to 56% last year) report their use of 3PLs has led to year-over-year incremental benefits, while 91% of 3PLs say their customers' use of 3PL services has led to year-over-year benefits.

Shifting Expectations in Shipper-3PL Relationships

In the five years that this study has surveyed 3PLs in addition to shippers, in most instances 3PLs rate their capabilities higher than shippers do. Although there are likely a number of reasons for this disparity, they do point to a need for more alignment among shipper and 3PL ratings on the key attributes and capabilities of 3PLs.

The news this year is that shippers and 3PLs have come into alignment in rating 3PLs' capabilities in **openness, transparency and effective communication**. The *2014 3PL Study* survey showed 70% of shippers and 69% of 3PLs are satisfied with each others' openness, transparency and communication.

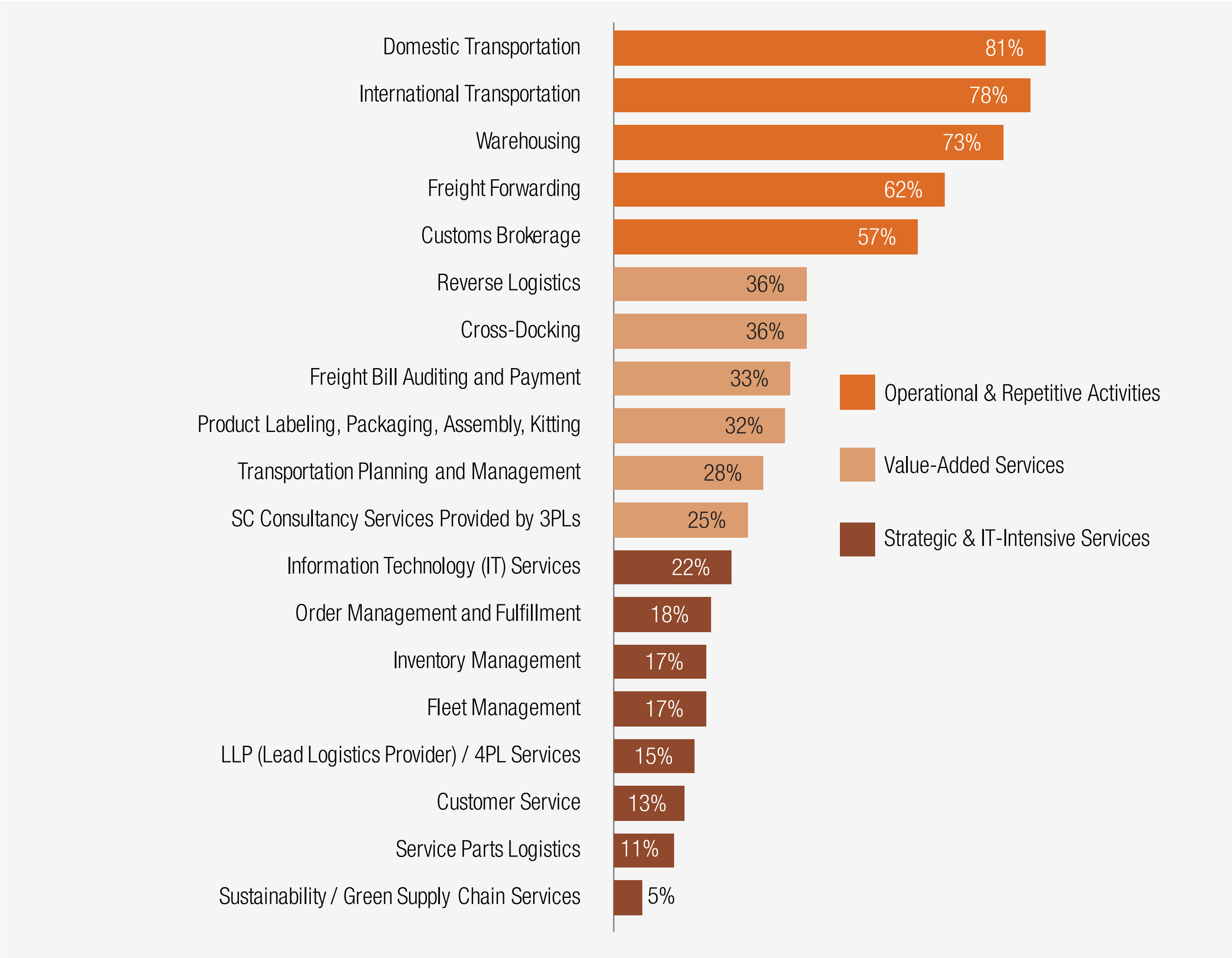
However, a difference still exists between 3PL and shipper ratings of **agility and flexibility to accommodate current and future business needs and challenges**. This year 99% of 3PLs feel their customers expect these qualities in their 3PLs, while only 66% of shipper respondents judge their 3PLs as sufficiently agile and flexible. This continuing gap suggests a further need for improvement.

For the past three years, this report has addressed the extent to which contemporary shipper-3PL relationships were moving up on the "maturity curve" in use of best practices and relationship-building initiatives. Two common themes of these discussions are "gainsharing" and "collaboration" in shipper-3PL relationships. Recently, it has been unclear in which directions these initiatives have been headed, particularly through the recent recession. However, this year's study results reinforce the validity of these concepts as legitimate and useful elements of well-structured shipper-3PL relationships:

- **"Gainsharing" between 3PLs and shippers:** Nearly half (47%) of shippers report having engaged in "gainsharing" arrangements with their 3PLs, while 60% of 3PL respondents indicate they have engaged in gainsharing. In recent years this report has characterized gainsharing as a sign of a more mature, evolved relationship. However, in light of the ongoing variance in the reported rates of gainsharing, our current opinion is that while the use of gainsharing is a valuable element of many shipper-3PL relationships, there are other relationships where some variation of a more traditional "fee-for-service" model is preferred. Future research will continue to take a deeper dive into this topic.

- **Interest in collaborating with other companies, even competitors, to achieve logistics cost and service improvements:** Slightly more shippers (48% compared with 41% last year) express interest in collaborating with other companies, even competitors, to achieve logistics cost and service improvements. Substantially more 3PLs (70%) indicate they are engaging in this type of collaboration. As with gainsharing, it is likely that this approach is more suitable in certain types of shipper-3PL relationships than in others.

Figure 3: Shippers Continue to Outsource a Wide Variety of Logistics Services



Source: 2014 18th Annual Third-Party Logistics Study.

What Shippers Outsource and What 3PLs Offer

Figure 3 shows the percentages of shippers outsourcing specific logistics activities. The results reveal that, while the responses to this question tend to be very similar from one year to the next, there are some notable shifts:

- Again with this year's study, the most frequently outsourced activities tend to be those that are more transactional, operational and repetitive. These include domestic and international transportation (81% and 78%, respectively), warehousing (73%), freight forwarding (62%), and customs brokerage (57%). Although these activities are sometimes regarded as common and routine, it is very important not to think of them as "commodities," as today's successful 3PLs need to be experts at delivering these in ways that are unique and highly differentiated from the customers' point of view.

- The less-frequently reported activities indicated in Figure 3 tend to be somewhat more strategic, customer-facing, and IT-intensive. Example activities include: IT services, supply chain consultancy services, order management and fulfillment, fleet management, customer service and LLP/4PL services. However, it's encouraging to see that shippers indicate moderate increases in these logistics activities compared with results reported in the *2013 3PL Study*.

Figure 4: Shippers Still Prioritize Execution-Oriented 3PL IT Capabilities

Information Technologies	Percentages Reported By			
	Shippers		3PLs	
	2013 Study	2014 Study	2013 Study	2014 Study
Transportation Management (Execution)	72%	75%	84%	81%
Transportation Management (Planning)	67	69	80	77
Electronic Data Interchange	68	78	79	76
Warehouse/Distribution Center Management	64	74	78	71
Web Portals for Booking, Order Tracking, Inventory, etc	59	62	72	75
Visibility (Order, Shipment, Inventory, etc.)	60	76	75	78
Global Trade Management Tool	43	51	42	38
Bar Coding	50	50	60	53
Transportation Sourcing	45	45	58	52
Customer Order Management	41	42	64	66
Supply Chain Planning	30	36	59	59
Collaboration Tools (SharePoint, Lotus Notes, etc)	32	43	41	46
Advanced Analytics and Data Mining Tools	26	34	39	42
Supply Chain Event Management	26	38	49	53
Network Modeling and Optimization	30	35	44	55
RFID	24	22	36	26
Yard Management	17	30	28	35

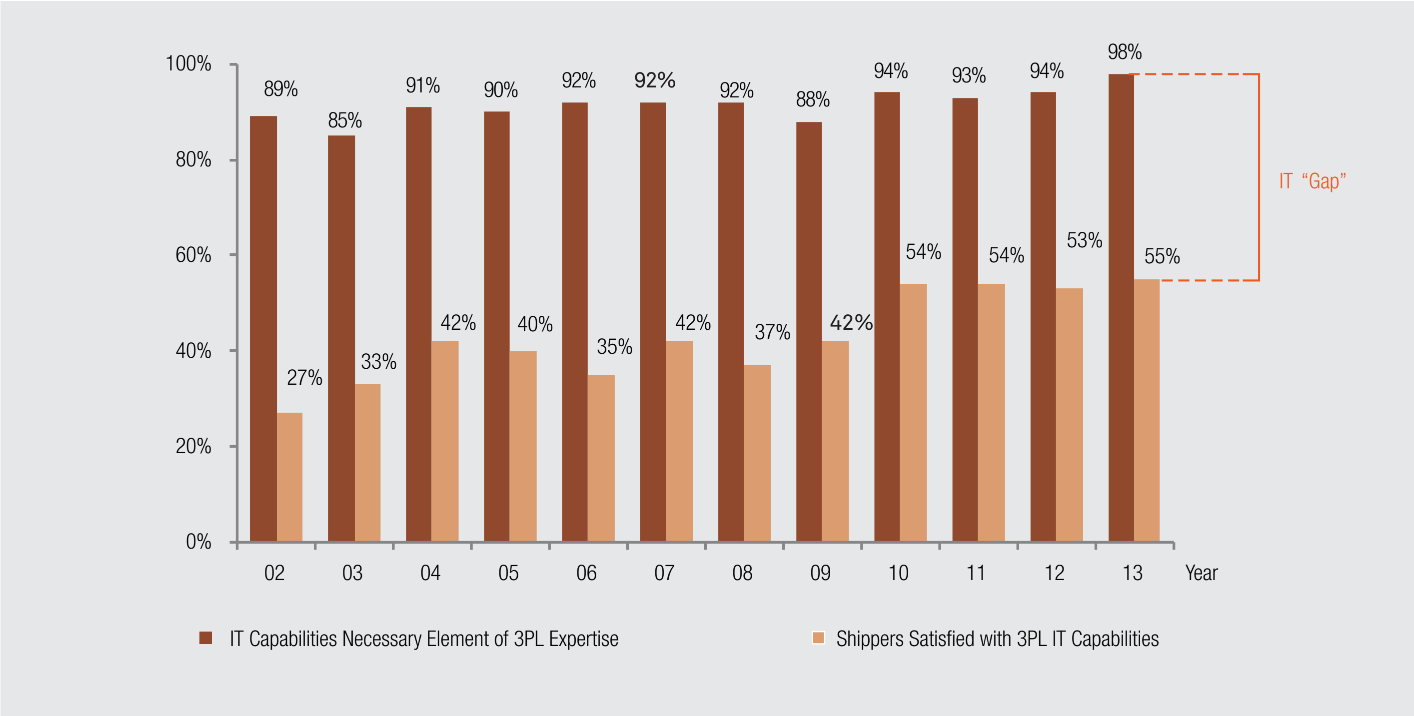
Source: 2014 18th Annual Third-Party Logistics Study.

3PL's IT Capabilities: The Bar Keeps Rising

Shippers' propensity to view 3PLs tactically rather than strategically is reflected in their views of 3PLs' IT capabilities. As seen in Figure 4, the IT capabilities shippers feel 3PLs must possess relate more so to execution-oriented activities and processes such as transportation, warehouse/DC management, electronic data interchange, visibility, etc., while they assign lower importance to capabilities that support more strategic and analytical services.

For 12 years this study has tracked a measurable difference between shipper's opinions on whether they feel information technologies are a necessary element of 3PL expertise, and whether they are satisfied with their 3PLs' IT capabilities. We have referred to this as the "IT Gap." Figure 5 reveals that over the long term, this gap has narrowed significantly. However, over the last three to four years the gap appears to have largely stabilized. This year 55% of shippers indicate they are satisfied with IT services provided by 3PLs, while 69% of the 3PLs feel their customers are satisfied with their IT capabilities.

Figure 5: The "IT Gap" Continues to be Relevant to Shippers



Source: 2014 18th Annual Third-Party Logistics Study.

Key Takeaways

Key findings about the Current State of the Market for the 2014 18th *Annual 3PL Study* include:

- Global markets continue to be volatile, driving highly variable and sometimes sluggish demand for outsourced logistics services. While **aggregate global revenues for the 3PL sector continue to rise,** Armstrong and Associates' figure of +9.9% average growth represents a decrease of about 1/3 from the percentage reported last year. Latin America and Other Regions also saw slowing of growth compared with last year.

- One consistent finding throughout the 18 years of *Annual 3PL Studies* is a relatively predictable "ebb and flow" of outsourcing vs. insourcing in the 3PL marketplace. Data from Armstrong & Associates supports a key finding of this study: That shippers **in general are increasing their use of outsourced logistics services.**

- Shippers report an average logistics cost reduction of 11%. The average inventory cost reduction was 6%, and the average fixed logistics cost reduction was 23%. These figures are down modestly from those reported in last year's study, but confirm the reasons 90% of shippers report that their **relationships with 3PLs generally have been successful.**

- **Shippers and 3PLs are about equally satisfied** (70% and 69%, respectively) with the openness, transparency and good communication in their relationships, and 66% of shipper respondents judge their 3PLs as sufficiently agile and flexible to meet future business challenges.

- Nearly one-half of shippers (47%) have engaged in **"gainsharing"** arrangements with their 3PLs, and a nearly equal percentage (48%) indicated they have **collaborated** with other companies, even competitors, to achieve logistics cost and service improvements. Variances in these results over the years suggest that, rather than reflecting levels of maturity, these approaches simply fit better with some shipper-3PL relationships than they do for others.

- Consistent with past studies, **transactional, operational and repetitive activities tend to be the most frequently outsourced,** in relatively stable numbers, but this year's results suggest some modest increases in prevalence of outsourcing some activities that are strategic, customer-facing, and IT-intensive.

- For the past 12 years, this study has been tracking the "IT Gap," which is defined as the difference between the percentage of 3PL users indicating that IT capabilities are a necessary element of 3PL expertise (98% in the current study), and the percentage of the same users who agree that they are satisfied with 3PL IT capabilities (55%). The results from this year's study again confirm that **the IT Gap is stabilizing to some extent,** but the research supports the idea that 3PL IT capabilities are becoming increasingly important to shippers, and that the shipper satisfaction ratings are also increasing.

Big Data in 3PL-Customer Relationships

Opportunity Currently Outstrips Usage

One of the most exciting and talked-about trends in supply chain management is Big Data and its potential to shed new light on supply chain problems and solutions. IDC and other analysts declared 2013 to be the start of the Big Data era in supply chain, but concede that some organizations will "get it" more quickly than others, and use that early adopter mentality for competitive advantage.

Survey respondents' attitudes toward Big Data and its potential to improve the functioning of supply chains reflect this early stage, indicating a range of confidence in the ability for Big Data initiatives to solve supply chain challenges, as well as the ability of current organizations and infrastructure to realize meaningful supply chain improvement and innovation.

Fully understanding the implications of Big Data requires first understanding what it really means. The definition that has guided our understanding of Big Data is the one provided by Gartner.

> *"Big Data" is high-volume, -velocity and –variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making."*

(Gartner, The Importance of 'Big Data': A Definition, 2012)

In suggesting this definition, Gartner cautions that "the only reason for pursuing Big Data is to deliver against a business objective," according to the firm's *The Importance of Big Data* report. "Processing large volumes or wide varieties of data remains merely a technological solution unless it is tied to business goals and objectives."

Varied Awareness

Shippers differ widely in their levels of interest, understanding and adoption when it comes to the role of Big Data in facilitating the analysis and solving of supply chain problems. As seen in Figure 6, just 30% of shippers and 27% of 3PLs indicate that to some extent they have implemented or are currently planning Big Data initiatives that involve supply chains or supply chain management.

Another 39% and 42%, respectively, indicate they are familiar with Big Data, but that they either are unsure as to how it can assist their supply chain organizations or do not believe it represents a good value proposition. And maybe not so surprisingly, 31% of shippers and an equal percentage of 3PLs report they are not familiar with Big Data and associated opportunities.

The lack of activity — or even awareness — among a majority of respondents contrasts to some extent with eyefortransport's *Supply Chain Big Data Report – 2013*, in which 60% of respondents reported some involvement in Big Data applications in the supply chain.

But the rationale behind many Big Data initiatives — improved, data-driven decision-making — is widely endorsed. The overwhelming majority of shippers (97%) and 3PLs (93%) participating in this year's survey agree that improved, data-driven decision-making is essential to the future success of their supply chain activities and processes.

Evidently, not all respondents agree that Big Data fuels these decisions; just over half (59%) of shippers and 42% of 3PLs indicate in the survey that shippers' supply chain organizations see significant value in the use of Big Data right now.

Figure 6: Shippers and 3PLs Report Similar Big Data Experiences

<table>
<tr><th></th><th colspan="2">Shippers</th><th colspan="2">3PLs</th></tr>
<tr><td>Big Data Initiatives Have Been Implemented That Involve Our Supply Chain</td><td>8%</td><td rowspan="2">Total 30%</td><td>5%</td><td rowspan="2">Total 27%</td></tr>
<tr><td>Currently Planning Big Data Initiatives For Our Supply Chain</td><td>22%</td><td>22%</td></tr>
<tr><td>Familiar With Big Data But Unsure How it Can Assist My Supply Chain Organization</td><td>30%</td><td rowspan="2">Total 39%</td><td>34%</td><td rowspan="2">Total 42%</td></tr>
<tr><td>Familiar With Big Data But Do Not Believe It Is a Good Value Proposition For My Supply Chain Organization</td><td>9%</td><td>8%</td></tr>
<tr><td>Not Familiar With Big Data and Associated Opportunities</td><td colspan="2">31%</td><td colspan="2">31%</td></tr>
</table>

Source: 2014 18th Annual Third-Party Logistics Study.

Big Data Potential both Functional and Strategic

Functional activities such as visibility, transportation management, and warehouse/distribution center management by their very nature generate significant volumes of data. So it's not surprising that both shippers and 3PLs see in these technologies, systems or tools the potential for improvement through use of Big Data. "Getting tactical [through the use of Big Data] can be a good investment," noted a participant in the *Annual 3PL Study* workshop held in Shanghai.

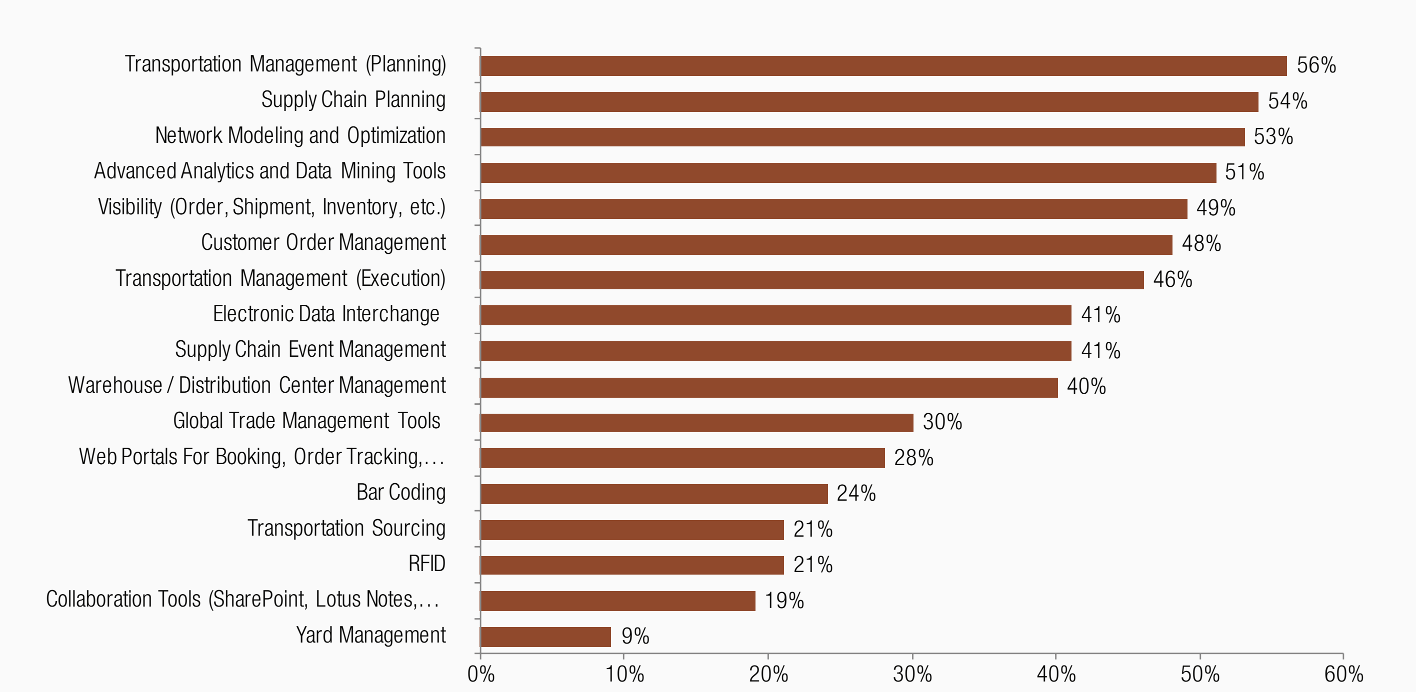
It's encouraging to note, as indicated in Figure 7, that shippers also see more strategic, IT-based processes relating to supply chain planning, network modeling and optimization, and advanced analytics and data mining as great areas of opportunity to leverage Big Data. Together, these represent a broad range of possibilities for using Big Data to improve the overall supply chain.

At the Shanghai workshop, for example, participants envisioned leveraging Big Data to consider manpower costs around store deliveries, including performing predictive analysis on routing. Some supply chain operators are already leveraging such initiatives:

- FedEx, for example, uses active sensors in high-value merchandise that send out telemetry data, tracking the package's traveling speed and conditions, according to Slashdot.org, October 2012; applying analytics to this data has the potential to largely reduce supply chain reaction times to avoid delays in shipments.
- Nike created a database with details on every link of its supply chain from sourcing to vendors across manufacturing and retail, according to a report on smartplanet.org, November 2012. Analytics helps identify the weak links within its supply chains – weak production, unfair labor practices and poor business decisions.

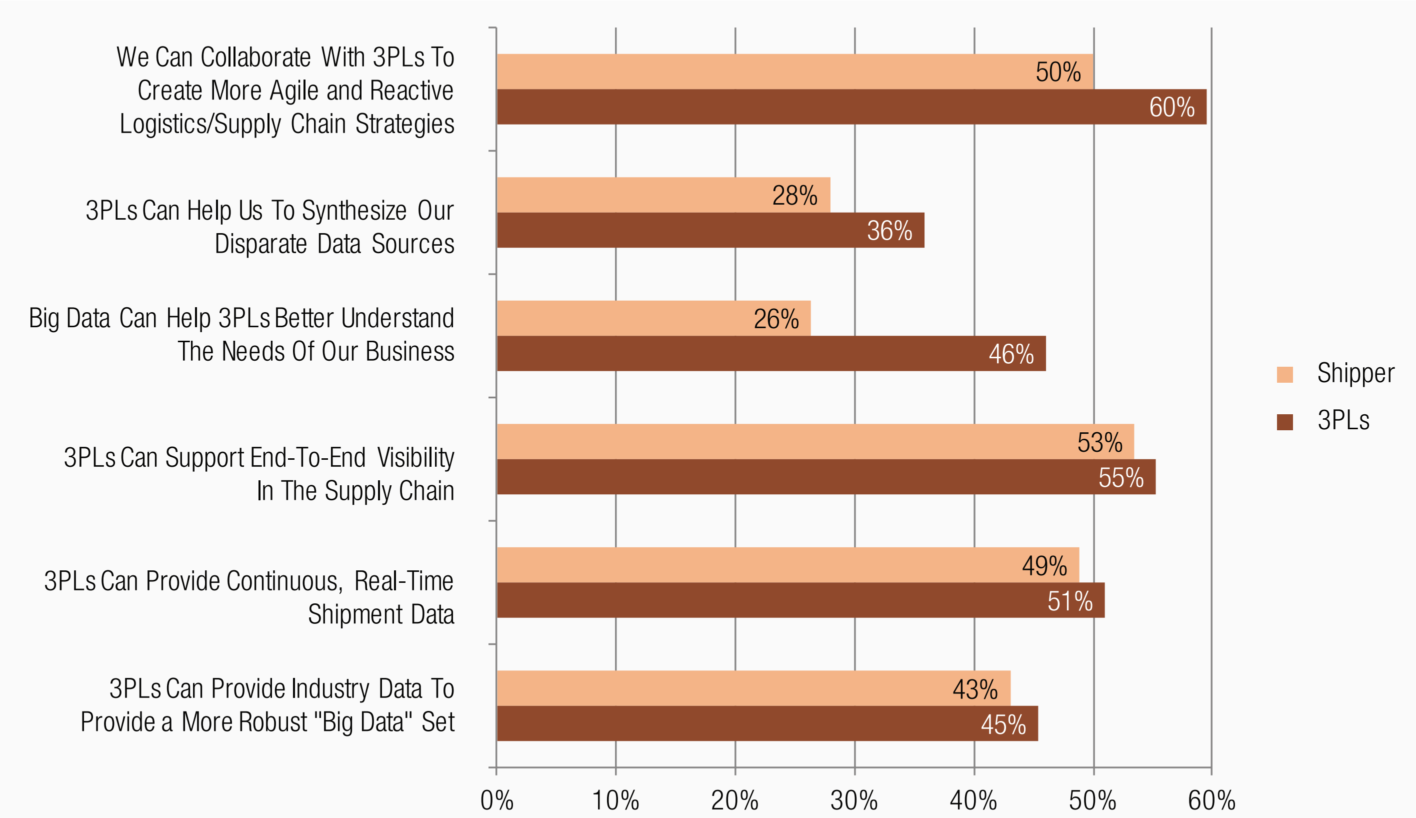
Separately, 3PLs expressed similar views to those of shippers regarding shipper Big Data initiatives as well as their own efforts to leverage Big Data on behalf of their shipper customers. One notable exception is that 3PLs seem to regard "customer order management" as a greater opportunity to work with shippers on Big Data technologies than do the shippers themselves. Customer order management has historically been one area that shippers have been reluctant to significantly involve external organizations including 3PLs, so it will be interesting to watch how this plays out.

Figure 7: Shippers Report a Variety of Technologies/Systems/Tools for Big Data Supply Chain Initiatives



Source: 2014 18th Annual Third-Party Logistics Study.

Figure 8: Opportunities Abound for 3PL-Shipper Big Data Collaboration



Source: 2014 18th Annual Third-Party Logistics Study.

Shippers also see opportunities to collaborate with their 3PLs using Big Data (Figure 8), particularly the chance to support end-to-end visibility in the supply chain (53%) and to create more agile and reactive logistics/supply chain strategies (50%). 3PLs had similar views, but they diverged in two key areas:

- 3PLs report less confidence in working with shippers to help them synthesize their disparate data sources; 36% of 3PLs saw this as a Big Data collaborative opportunity, versus 28% of shippers.
- Just 26% of shippers were confident that "Big Data can help 3PLs better understand the needs of (customers') businesses," while 46% of 3PLs agreed.

At a recent Penn State Supply Chain Leaders Forum, Matthew Menner, Senior Vice President at Transplace, remarked that with regard to Big Data, "3PLs need to plan a long term approach with business goals as the basis, and avoid industry trends that can be temporary or disregarded in the near-term. (i.e., be proactive, not reactive). This suggests that there is a significant strategic advantage to the development and utilization of Big Data capabilities." Added Menner, "A proactive approach requires a multi-year plan between the customer and its 3PL to develop the strategy and roadmap to success. By using available data and business intelligence, companies gain insight that becomes actionable; and in the end, it helps align and engage a cross-functional team that shares a myopic set of objectives to thrill the customer, retain business and grow market share."

As seen in Figure 9, both shippers and 3PLs agree that 3PLs are already supporting Big Data initiatives, assume that 3PLs will develop them in the future, or believe 3PLs will have access to the data elements needed to drive the effective use of Big Data. To a lesser extent, shippers and 3PLs have some concerns about 3PLs' ability to manage the complexity of the elements of Big Data, and feel that shippers would not share proprietary data with 3PLs. Interestingly, far more 3PLs (32%) are concerned about shippers' proprietary data sharing compared with just 22% of shipper respondents. One interpretation of these results is that according to 3PLs, shippers are not always as willing to share proprietary data as they would suggest.

Figure 9: Shippers and 3PLs Bullish on Big Data Collaboration

	Shippers	3PL Providers
Yes, 3PLs Can Support Our Big Data Initiatives	41%	34%
3PLs Have Access To the Heterogeneous Data Elements That Are Needed To Drive the Most Effective Use Of Big Data	18	26
3PLs Do Not Currently Have Big Data Capabilities, But We Assume They Will Develop Them In the Future	24	31
3PLs Cannot Manage the Complexity Of the Data Elements Needed To Effectively Use Big Data	17	12
Our Data Is Proprietary and We Would Not Share It With 3PLs	22	32

Source: 2014 18th Annual Third-Party Logistics Study. *Note: Totals do not add to 100% due to multiple responses.*

Figure 10: Supply Chain-IT Disconnects Restraining Big Data Progress

	Shippers	3PL Providers
IT Has Been a Key Strategic Partner In Using Big Data	21%	20%
IT Is a Strategic Partner In Our Future Plans To Use Big Data	25	36
Our Relationship With IT Has Evolved In Our Ongoing Efforts To Use Big Data	26	27
Our Relationship With IT Has Created Challenges In Using Big Data	12	7
IT Provides Functional Support, But Is Not a Strategic Partner. We Have Not Been Able To Use Big Data As a Result	29	21

Source: 2014 18th Annual Third-Party Logistics Study. *Note: Totals do not add to 100% due to multiple responses.*

Managing Big Data

Supply chain activities may be generating Big Data, but internal IT departments are its curators. Succeeding with Big Data initiatives that benefit the supply chain will require collaboration between supply chain and IT organizations within both shipper and 3PL companies. Fully 78% of shippers and 74% of 3PL respondents agree that the effectiveness of Big Data initiatives is highly dependent on the alignment and working relationships between supply chain and IT.

The survey results included in Figure 10 also suggest there is great room for improvement in these relationships when it comes to Big Data initiatives. In fact, 29% of shippers report that while IT does provide functional support, their view is that IT is not a strategic partner and has been responsible for the lack of progress in using Big Data. Fewer 3PLs (21%) feel this way about the Big Data support they're receiving from their internal IT departments.

At the *Annual 3PL Study* workshop held in Amsterdam, participants expressed the idea that the best approach to organizing Big Data initiatives is to create cross-functional working groups with representatives including IT, Finance, HR, and so on, to get business context for determining how best to use Big Data across the enterprise.

One common obstacle to working with IT on Big Data initiatives among respondents is a lack of foundational infrastructure; 59% of shippers and 48% of 3PLs report that "our supply chain organization believes we need to further develop the more traditional requirements of storage, processing, and information architecture before becoming seriously involved in the use of Big Data."

This limitation means just 57% of shippers and 47% of 3PLs agree they "have access to timely and comprehensive data relating to supply chain planning and operations" within their organizations.

While "ownership" of Big Data initiatives can sometimes be a contentious issue, a prerequisite to success will be for representatives of the business and technology sides of the company to work together effectively. A clear first step for many is putting the basic building blocks in place to ensure people in the business and IT organizations to have access to appropriate levels of data.

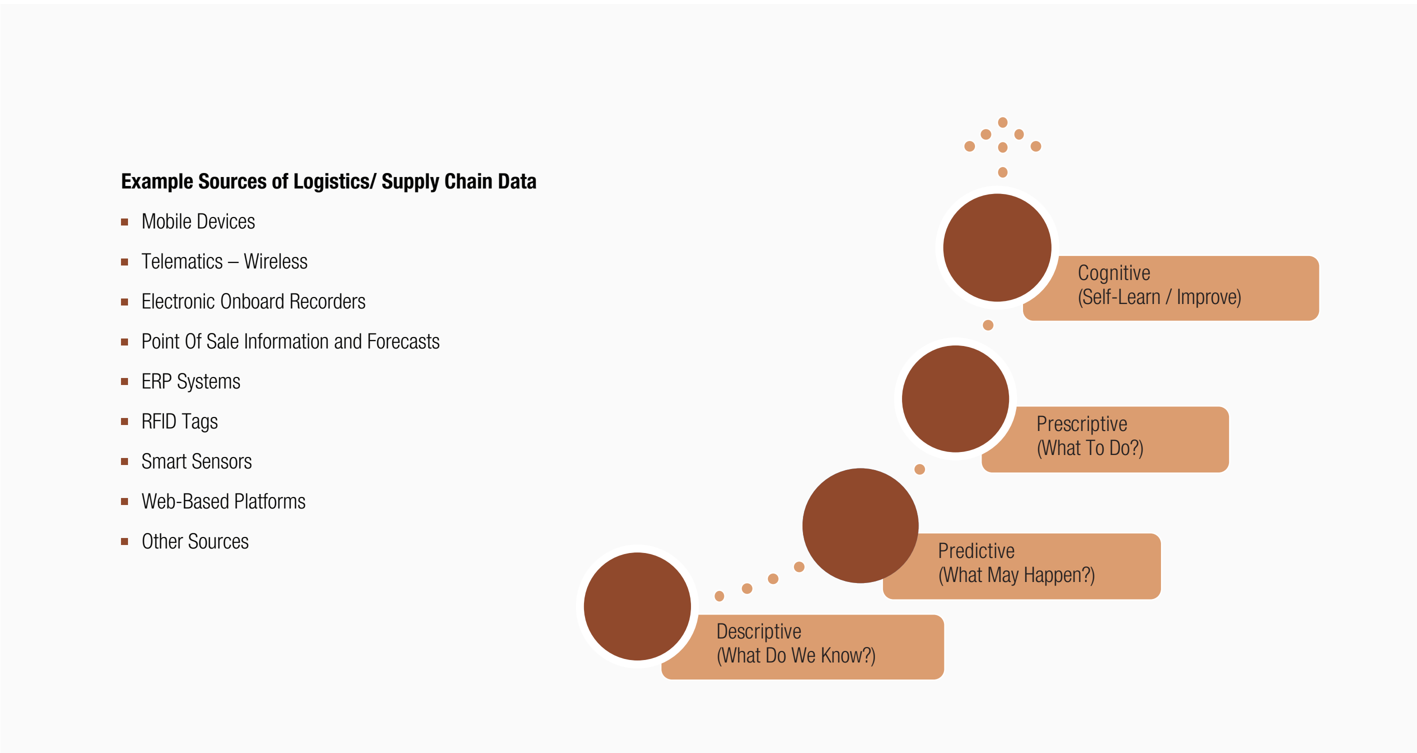
Deriving Value from Big Data

According to David Biederman's *Big Data: It's Not All in the Numbers*, which appeared in the *Journal of Commerce*, March 4, 2013, "Big Data represents a potential new source of competitive advantage for shippers, carriers and third-party logistics providers… by harvesting data for enhanced insight into market trends, cost structures and demand and capacity fluctuations, service providers can operate more efficiently and improve the scalability of their enterprises."

Our survey results reinforce these comments, and suggest that supply chain is a very fertile area of opportunity for the use of Big Data tools and technologies. At a recent meeting of the biannual Penn State Center for Supply Chain Research (CSCR)'s Supply Chain Leaders Forum, Eric Peters, CEO of FoodLink, a firm that provides solutions across the entire fresh food supply chain, said "[It is important to] leverage Big Data and identify problems and opportunities before they occur."

Figure 11 captures the essence of how to generate value from Big Data as an organization moves through stages of adoption, represented as descriptive, predictive, prescriptive, and cognitive. The figure also includes some of the example sources of logistics/supply chain data that may be of use to both shippers and 3PLs to generate new types of value.

Figure 11: Big Data Can Generate New Types of Value for Shippers and 3PLs



Source: Supply Chain Leaders Forum, Center for Supply Chain Research, Penn State University, Spring, 2013

Early Days in Big Data Usage

These findings confirm that there is both great need and great potential for the use of Big Data in the supply chain and as a key element of shipper-3PL relationships. While significant opportunities to make progress on these initiatives still remain, this study has provided significant insight into why and how this area will continue to be of great importance to both users and providers of 3PL services.

In the words of Christopher W. Craighead, Ph.D., Director of Research for Penn State's Center for Supply Chain Research and the Rothkopf Professor and Associate Professor of Supply Chain Management, "we want to get to the point where we can not only predict demand, but begin to shape or change the demand." It is through the use of Big Data that supply chain operators will be able to make significant progress on this objective.

Big Data: Key Takeaways

- Analysts declared 2013 to be the start of the Big Data era in supply chain. But, shippers differ widely in their levels of interest, understanding and adoption, with 22% of shippers and 23% of 3PLs planning or currently using Big Data initiatives.

- Shippers (97%) and 3PLs (93%) wholeheartedly agree that improved, data-driven decision-making is essential to the future success of their supply chain activities and processes. They also concur that Big Data can be leveraged in both functional and strategic aspects of supply chain operations, and to support visibility and make supply chains more agile. Many see Big Data as a key element in future 3PL services.

- Obstacles to leveraging Big Data include a disconnect between internal supply chain and IT operations and a lack of supporting IT infrastructure. Just 57% of shippers and 47% of 3PLs "have access to timely and comprehensive data relating to supply chain planning and operations" within their organizations.

- This year's survey confirms that there is both great need and great potential for the use of Big Data by shippers and 3PLs in the supply chain.

Preferential Sourcing

Opportunity Lies in Preferential Trade Agreements

Over the past few decades, the volume of cross-border world trade has increased significantly. The value of world exports mushroomed from US $3,676 billion in 1993 to US $17,816 billion by 2011, with similar increases in world imports, according to the World Trade Organization. In fact, extra-regional trade strongly outpaces intra-regional trade in many regions around the world.

Many shippers are revisiting sourcing and distribution decisions to take advantage of expanding opportunities, and seeking new paths for growth to offset stagnation or declines in mature markets. Setting up new sourcing and/or distribution relationships in developing countries entails balancing cost with opportunity. This is a complicated challenge as companies try to capture the information needed to make multimillion, or even multibillion dollar decisions. Shippers must capture and evaluate all of the factors impacting potential activity in a particular location. These may include:

- Consumerism, such as the rise of the middle class in China: this force is driving development of additional regional and local market opportunities.
- Lead-time constraints: how quickly suppliers can deliver parts and materials to production sites.
- Risk management/continuity planning: Shippers are adding metrics such as "time to recovery" to their corporate scorecards in an effort to better measure the cost of protracted service/operations failures.
- Portfolio differentiation: as demand diversifies geographically and individual markets require products customized to local tastes.

Enter Preferential Trade Agreements

The diversification of global supply networks is driving creation of new free or preferential trade agreements (PTAs). As seen in Figure 12, the World Trade Organization says almost 300 preferential trade agreements were in force in 2010. On average, a WTO member is party to 13 PTAs, with more on the way. Significant new agreements currently being negotiated include the Trans-Pacific Partnership and the Transatlantic Free Trade Area (TAFTA).

PTAs provide shippers a potential opportunity to lower costs, particularly in new, often developing markets.

But while the opportunities are large, just 16% of global merchandise trade currently receives preferential treatment, according to the World Trade Organization.

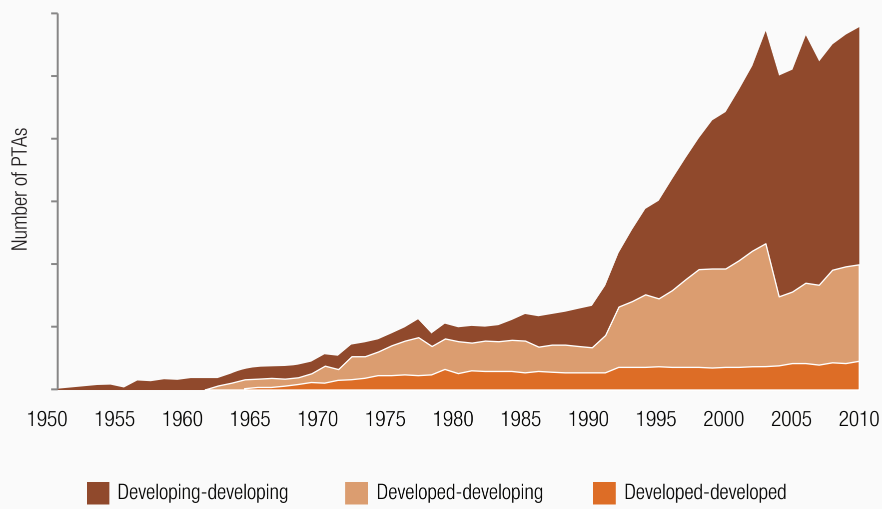
That may be because, as addressed in both the *2012 and 2013 Third-Party Logistics Studies*, the rise of preferential trade agreements also creates new challenges for supply chain executives. These include understanding PTA eligibility, maintaining visibility of compliance information, obtaining PTA information from suppliers and collecting duty savings from trade programs.

At the *Annual 3PL Study* workshops in Shanghai and Amsterdam, conducted as part of the preparation of this year's report, shippers echoed the complexities of accounting for PTAs in network decision-making, including developing capabilities to respond to PTAs and aligning PTAs with the company's strategic goals.

As countries engage in multiple, overlapping preferential trade agreements, the task of keeping track of variances in tariff schedules, rules of origin, customs procedures, implementation timeframes, and so on, becomes increasingly unwieldy and complex. The terms of PTAs tend to change rapidly and arbitrarily, further complicating their management.

Figure 12: Global Participation In Preferential Sourcing Agreements is Growing

- Almost 300 Preferential Trade Agreements (Notified and Not Notified) Were In Force In 2010
- 13 Is the Average Number Of PTAs That a WTO Member Is Party To
- Only 16 percent Of Global Merchandise Trade Receives Preferential Treatment



Source: World Trade Organization's July 2011 World Trade Report

Global Trade Management Approaches

In response to all of these pressures and opportunities, some shippers are taking a more advanced approach for managing their global trade.

Most shippers take a basic path, optimizing supply chain costs and risks during the physical movement of product from suppliers through production to destination markets. In this model, activities focus on duties, freight costs, documentation and the need to support the physical movement of goods. These legacy supply chains typically approach production and distribution as fixed variables within the equation, and decisions are made from (typically lowest cost) supplier through to destination market. This approach is depicted in the top half of Figure 13.

The bottom half of the figure shows an advanced approach to global supply chain management, which considers a more complete set of variables to optimize decisions at each point within the supply chain. Calculations take into account the complexity of moving finished and work-in-process products across country and regional borders, and optimize paths early in the supply chain to minimize these costs and risks throughout the chain. In an advanced approach, short- and long-term sourcing, production and distribution location decisions are made early in the product design process with the goal of aligning the country of origin with the destination country, and thereby being able to take advantage of a PTA.

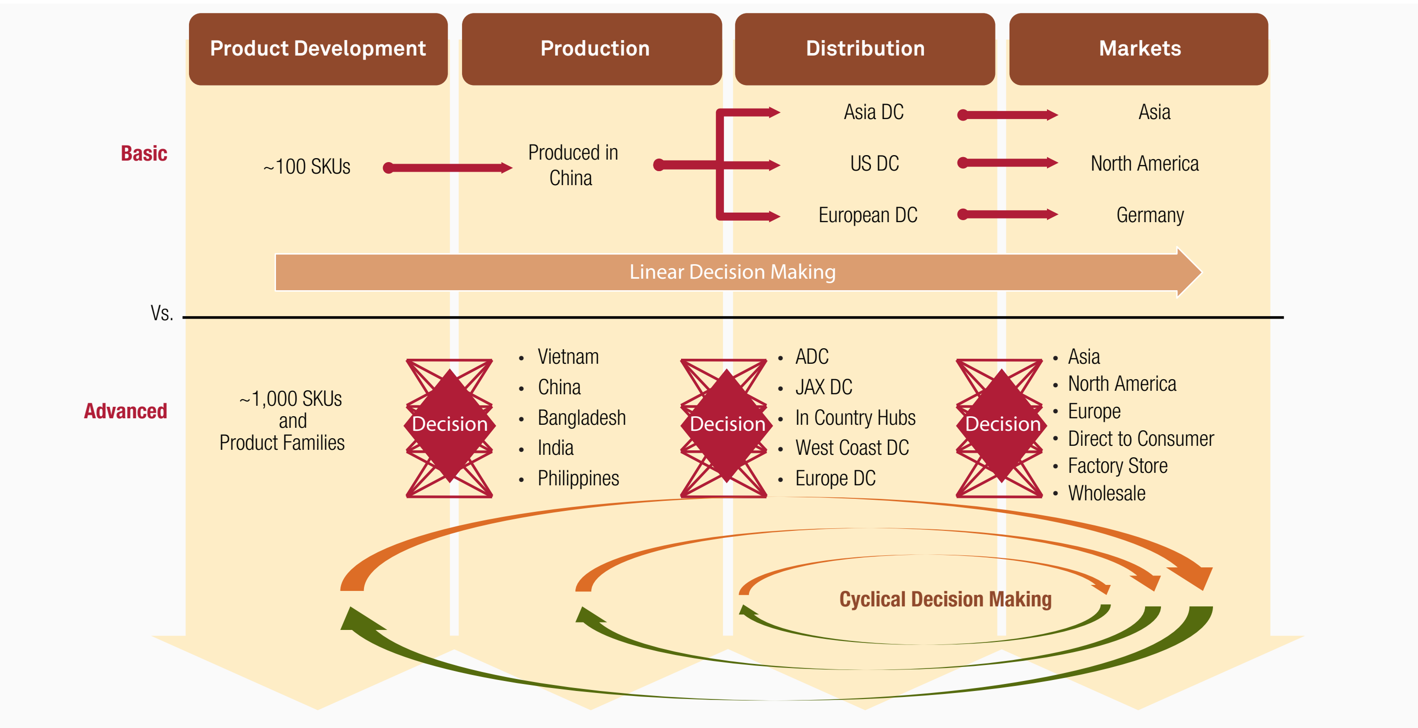
Global Trade Management Maturity

Shippers with an advanced approach to supply chain management often find value in developing a mature Global Trade Management (GTM) methodology.

The maturity of company's GTM approach can be assessed by examining their organizational structure, supply chain decision points and the completeness of their GTM tools:

- **Organizational structure:** In a mature approach to GTM, an integrated cross-functional team makes sourcing and routing decisions and shares data, rather than limited groups in silo'ed functional areas. These shippers have well-developed relationships with providers and third parties.
- **Supply Chain Decision Points:** Sourcing and routing decisions are made early on in product design/development. The company optimizes for risks and costs backwards, from the destination market back to suppliers — a capability that requires comprehensive and accurate forecasting capabilities.
- **Completeness of GTM tools:** These companies use complete and real-time technology solutions rather than spreadsheets. Calculations include PTAs and tariff/duty updates, and the results are integrated with forecasting to account for changes in tariffs/duties as well as market demand. These shippers possess decision-making modeling capabilities, including the location and investment in assets (production locations) throughout the supply chain. This allows the shipper to identify the requirements and benefits of complying with a PTA.

Figure 13: Global Trade Management Approaches



Source: 2014 18th Annual Third-Party Logistics Study.

Even within more mature global supply chain management approaches, shippers vary significantly in their capabilities. Most comply with the minimum to get by, ensuring that they are covering tariff/duty and transportation costs. Some understand the need for complexity, and build in-house solutions to address their immediate needs. Top performers have grasped the concepts of GTM and are creating competitive advantages by exploiting it. They are specifically applying GTM capabilities in areas where demand is growing in developing markets. These leaders have found the value in managing the complexity of GTM.

GTM continues to evolve alongside the need, but open questions remain regarding best practices for GTM application. For example, is there more benefit for certain industries over others? Is there a minimum scale that a company must reach to achieve the benefits of adopting a complex GTM approach?

GTM as a Preferential Sourcing Requirement

Often those with less mature approaches to GTM do not see the potential profitability in a well-developed preferential sourcing methodology. As indicated in Figure 14, shippers are more likely to regard efficiency, compliance and risk management as key drivers for their investment in GTM than profitability. Many shippers view GTM as a tactical tool required to buy and sell products in global markets.

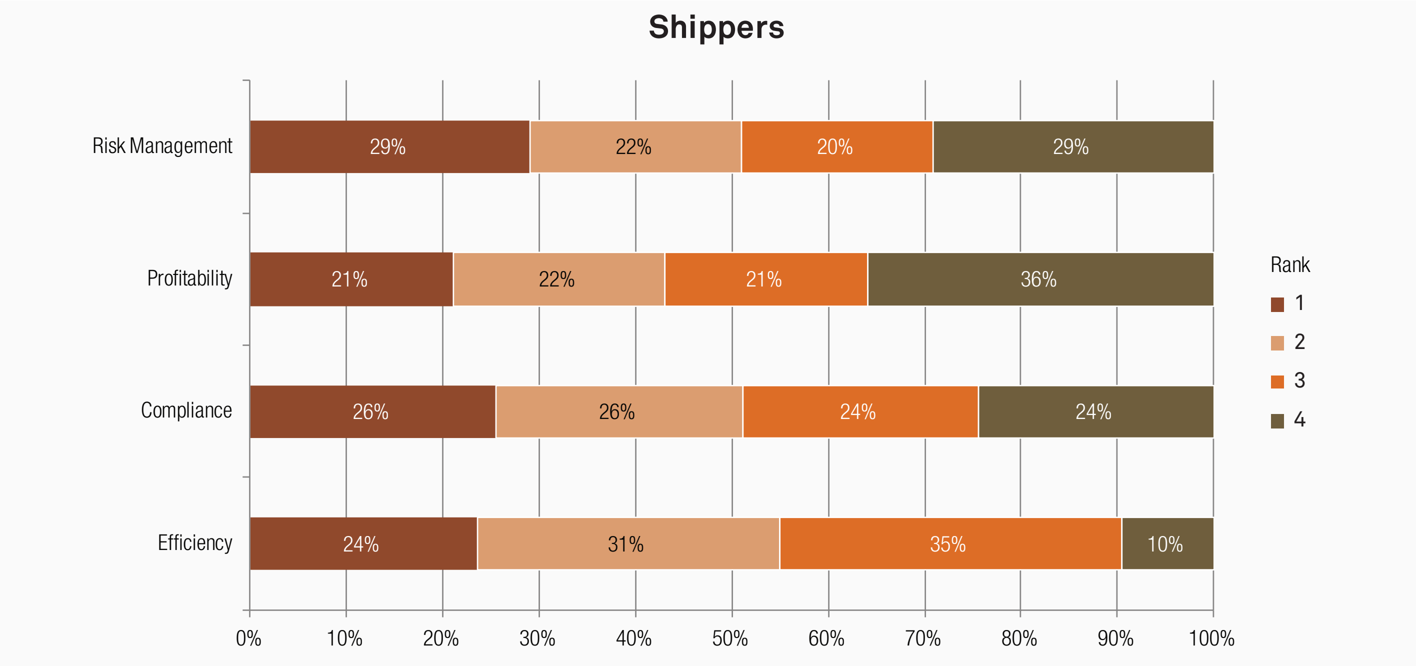
In addition, as illustrated in Figure 15, these entry- and mid-level shippers do not implement GTM solutions globally. Instead, they are frequently applied in individual regions to support compliance.

Further evidence of the tactical use of GTM tools by entry- and mid-level shippers is seen in Figure 16. Almost half of shippers place responsibility for global trade management in departments which would employ GTM for more tactical applications, namely logistics (23%), compliance (13%) and procurement (12%), while the remainder locate it in departments where it would play a more strategic role, or consider it a cross-functional application — consistent with a mature approach.

When shippers use GTM for isolated regions or exclusively for tactical decisions, they are unable to fully leverage its power for enabling sound preferential sourcing decisions that take PTAs into account.

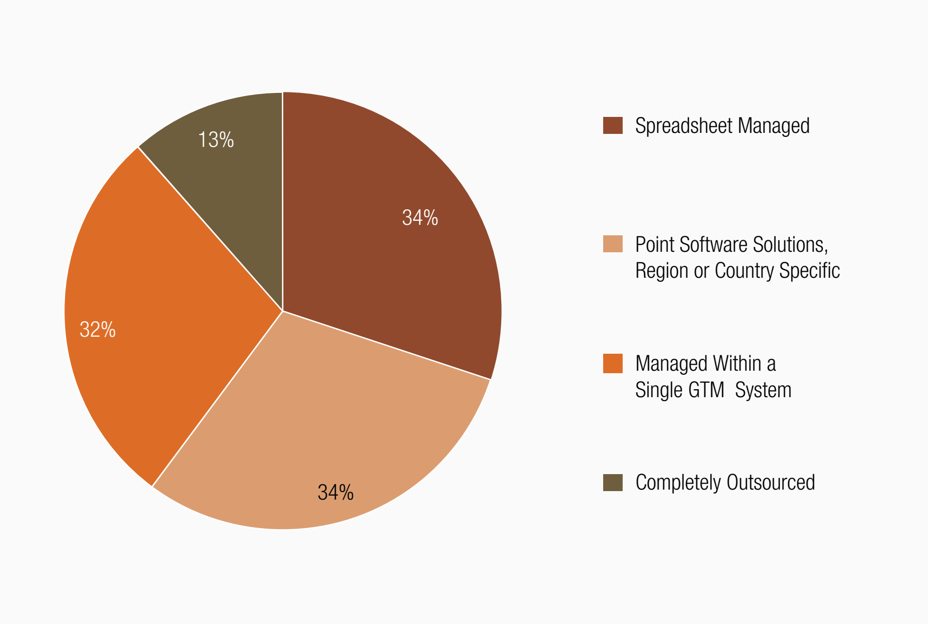
As one Shanghai participant noted, "You can build beautiful systems, but you need to understand how to use them" to make key decisions at both the tactical and strategic levels.

Figure 14: Efficiency Primary Driver for Today's GTM Investments



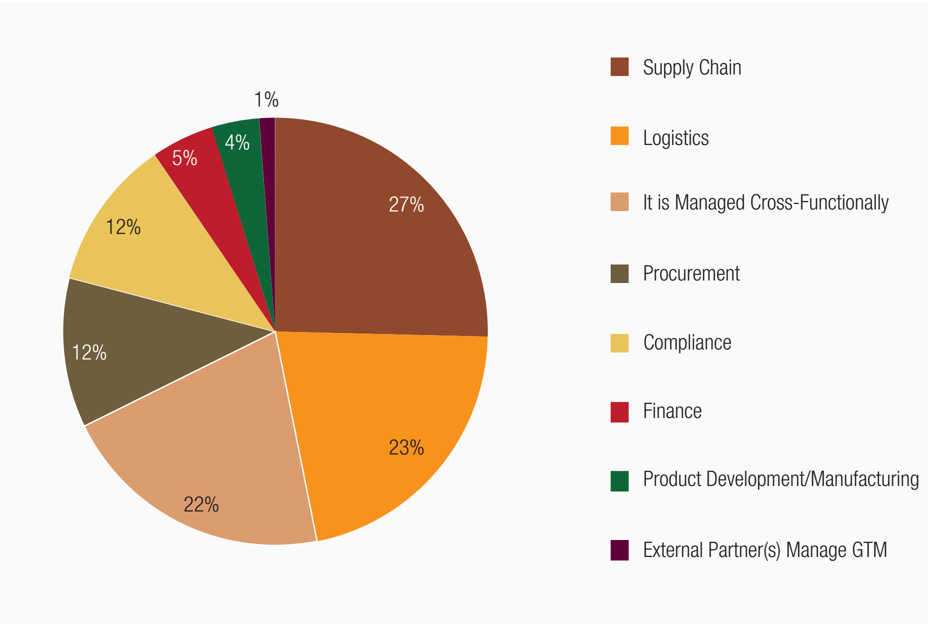
Source: 2014 18th Annual Third-Party Logistics Study.

Figure 15: Spreadsheets the Most Commonly Used GTM Tool



Source: 2014 18th Annual Third-Party Logistics Study.

Figure 16: GTM Most Often Managed as Supply Chain Function



Source: 2014 18th Annual Third-Party Logistics Study.

Mature GTM Users

Those companies most advanced in the application of GTM use it to optimize sourcing decisions.

Mature users that leverage the constantly updating library of tariffs and duties incorporated into GTM tools can consider PTA terms alongside other factors in calculating the opportunities and risks posed by specific locations when evaluating supply chain network decisions. Taking advantage of PTAs is also key to determining total landed cost – identifying opportunities to reduce duties, therefore allowing shippers to maintain margin at a lower sales price.

These users often integrate their GTM applications with other tools, drawing in additional global trade data while contributing updated PTA information. These include software solutions from companies such as Integration Point and Amber Road and services including JPMorgan Chase Vastera.

Mature users also apply this sophisticated GTM approach early in the design process, when materials are identified and customers, geographies, price, margins, shipping costs, and so on are being established.

Mature users typically leverage a single GTM tool to look across global operations and functional areas, as opposed to multiple separate evaluations within departments or regions. When shippers manage all activities within a single GTM tool, and then assign prime responsibility for management of the tool in cross-functional or supply chain functions, they make strategic information available to a larger pool of decision makers, and earlier in product design/development processes.

That's important, because, as noted in Figure 17, a more cross-functional perspective is valuable in overcoming common obstacles to global trade. According to shipper respondents, these challenges include global visibility of items, orders and shipments (62%), compliance information gathering and maintenance (49%) and document management for shipment and control, etc. (40%).

3PL Role in GTM

The challenges cited in Figure 17, along with the large number of shippers not currently leveraging GTM tools to manage all of the complex data within supply chain decision making, represent an opportunity for 3PLs. A third party is well-positioned to manage the complexity and flow of information across players within a supply chain; and in doing so may be able to create more strategic relationships with all parties involved. Some 3PLs are well-equipped to facilitate global visibility and provide compliance management to support accurate documentation management, just two of the ways they can support shippers facing these challenges in Figure 17.

The Evolution of GTM

It's difficult to overstate the importance of getting it all right when making strategic decisions about where to locate sourcing and distribution/sales infrastructure. As more countries and regions forge Preferential Trade Agreements, complex tariff and duty structures, and more developed logistical options, understanding and capturing this information effectively becomes a potentially costly or profitable way of doing business in affected countries.

Reverse logistics is a case in point. In some locations, such as Brazil, tariffs are structured in such a way that, once goods enter the country, it's cost-prohibitive to get them back out. Redistribution of misallocated goods is not an option, so liquidating inventory sometimes becomes the only course of action. Such conditions elevate risk, and must be accounted for in strategic network planning.

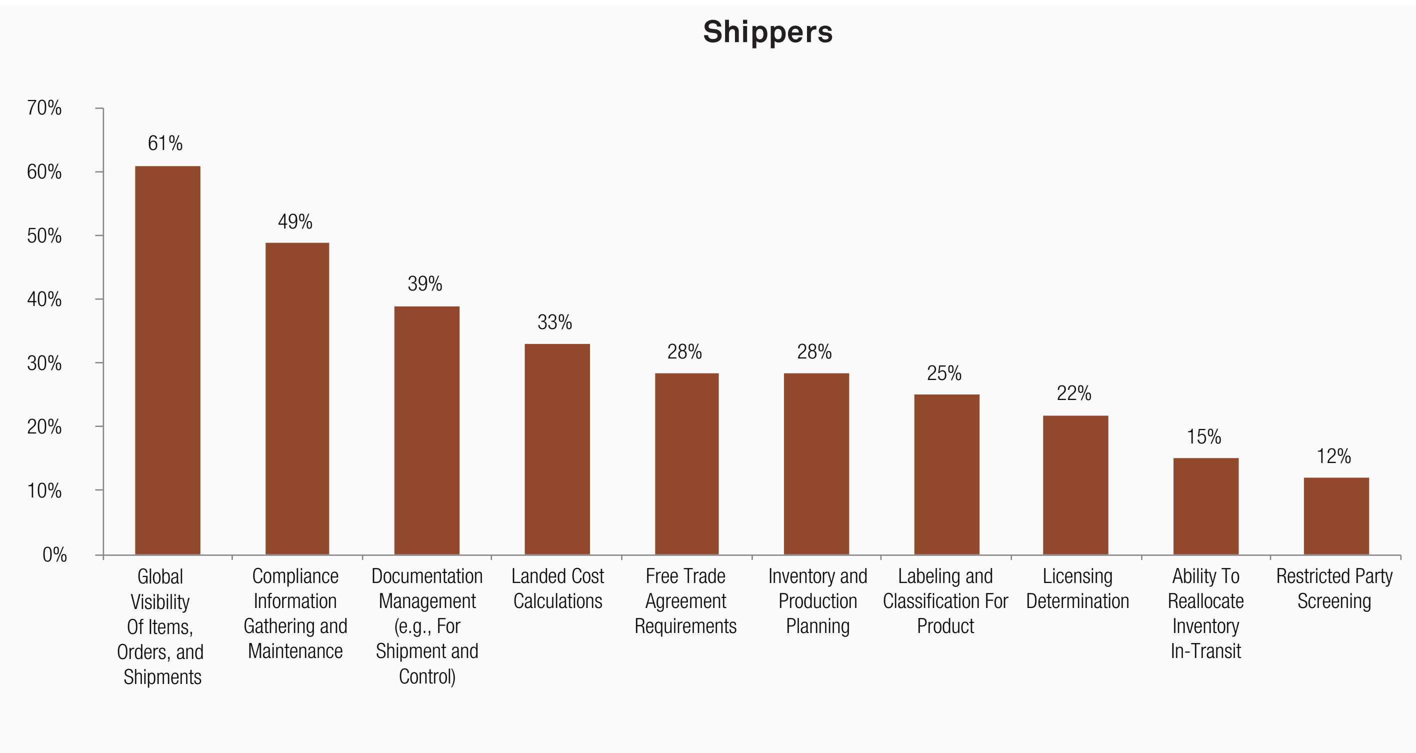
The increasing complexity of global trade dictates that shippers take a more comprehensive approach to sourcing and distribution decisions. The rapid expansion in the number of preferential trade agreements is adding further fuel to the fire. The good news is that there is considerable opportunity for both shippers and 3PLs to leverage global trade management tools and services to take all factors into account as they make strategic choices about where to extend their networks.

Preferential Sourcing: The Takeaways

- Significant increases in the volume of cross-border world trade have many companies revisiting sourcing and distribution decisions. But these complex decisions require accounting for multiple factors, including consumerism, lead-time constraints, risk management/continuity planning and portfolio differentiation. Yet another factor is proliferation of preferential trade agreements (PTAs), which now number almost 300.

- Most shippers take a basic approach to managing all this global trade activity, focusing on the physical movement of goods and viewing production and distribution as fixed variables. A more advanced approach considers a more complete set

Figure 17: Top Global Trade Challenges Invite Strategic Use of GTM



Source: 2014 18th Annual Third-Party Logistics Study.

of variables to optimize decisions at each point within the supply chain, accounting for additional complexities. They often find value in developing a mature Global Trade Management (GTM) methodology, which is evident in their organizational structure, supply chain decision points and the completeness of their GTM tools.

- The survey found many shippers regard GTM as a tactical, rather than strategic, tool. So they tend to apply GTM in individual regions to support compliance and locate it in departments that tend to use it tactically. Advanced GTM users apply it globally to optimize sourcing decisions and consider PTA terms alongside other factors in evaluating locations. Many 3PLs already partner with firms that provide detailed supply chain collaboration services and are well positioned to support shippers in their GTM needs.

Smart Growth Leadership

Different Skills for the New Normal

As the dust clears following the worst of the great recession, supply chain leaders are assessing the impact and crafting strategies to guide their organizations into the next phase.

Shippers and 3PLs are in close agreement on the capabilities they feel are important in the supply chain leaders helming this effort. As seen in Figure 18, they rate operational execution, people management and development, and driving growth as key abilities.

Challenges Ahead

But the skills those leaders needed to get their organizations through the recession, and in the time preceding it, differ markedly from those required in the "new normal."

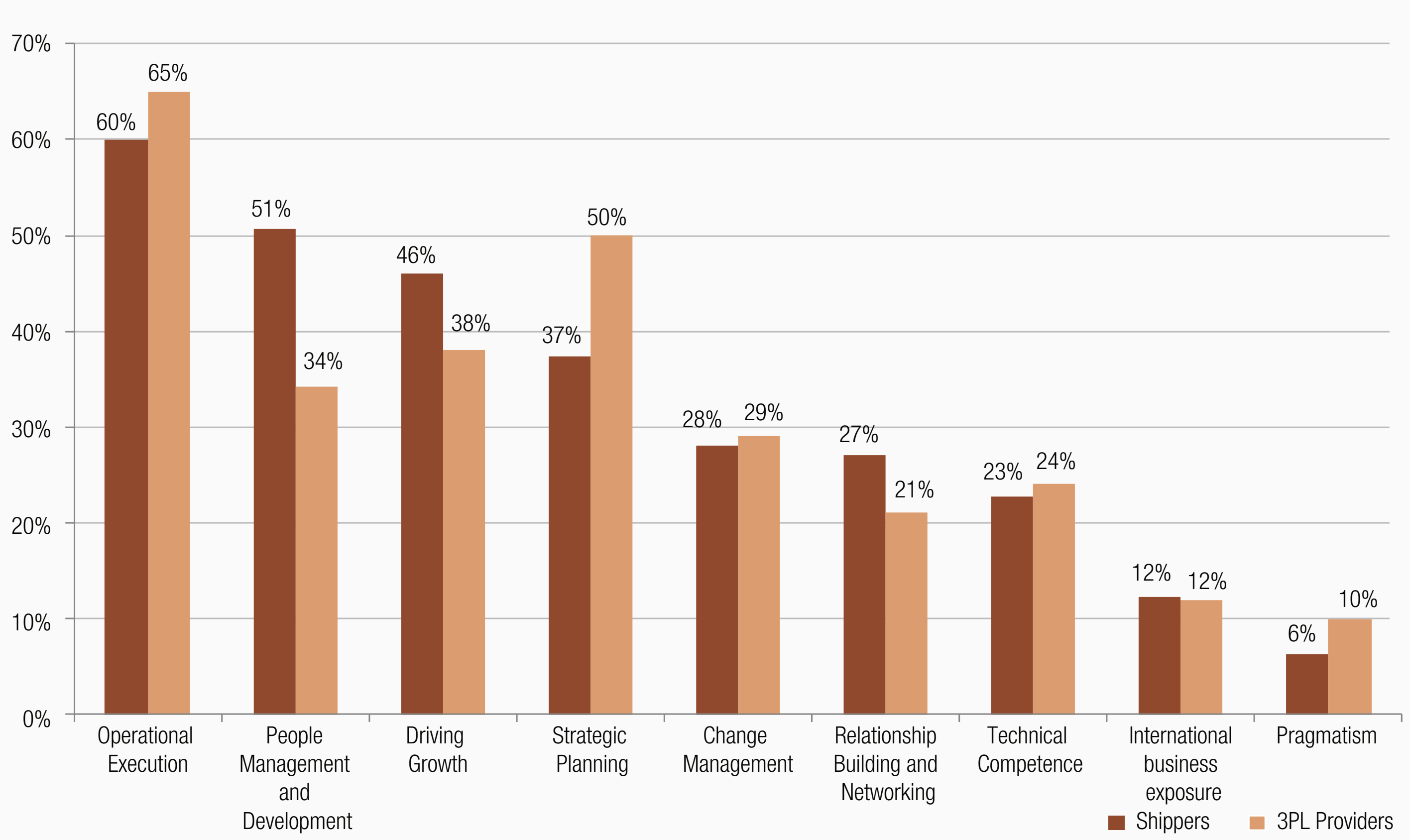
In the new normal, the givens are gone:

- **GDP:** Markets are no longer growing fast enough to sustain multiple players; the top one or two have the best chance to win. Internationally, the growth of Gross Domestic Product has stalled at between 1% and 3% in mature markets and been reduced to 5% to 7% in emerging markets.
- **Demand:** Supply now outstrips demand, and customers lean toward cutting costs rather than investing.
- **Investors**: Investors are focused more on assessing risk than on fostering growth.
- **Talent:** Top talent remains constrained, but top talent prepared for the new normal is especially rare.
- **Regulation:** Risk has replaced growth as the overriding bias.
- **Innovation:** Fast but non-disruptive innovation has given way to disruptive innovation that leads to new models.

These changes have produced a radically different marketplace. Consumers spend less due to deleveraging, lower wages and job loss. Businesses feel uncertain, so they spend less and focus on costs instead of growth. Emerging markets grow more slowly, driving down commodity demand and prices. Protectionism and unemployment reduce trade flows and outsourcing. Governments spend less as well, and promulgate regulations that reduce risk and suppress capital available for growth.

More than half of shippers (57%) and 3PLs (54%) in the survey agree that the upcoming seven to eight years following the recession will be a period of more difficult growth than the seven to eight years preceding it.

Figure 18: Shippers and 3PLs Value Execution, People Management in Leaders



Source: 2014 18th Annual Third-Party Logistics Study.

Trained for Growth

Into those difficult conditions, march career supply chain executives whose training and experience are all rooted in a high growth era.

According to Korn/Ferry International, to succeed in the new normal, organizations need "Smart Growth" Leaders. Smart Growth Leaders possess the leadership and operational skills necessary to grow the top and bottom line of a business in an extremely challenging environment where demand conditions are weak and disruptive change is high. What organizations need now is nonlinear growth, that is, growth that tracks beyond general GDP or sector performance.

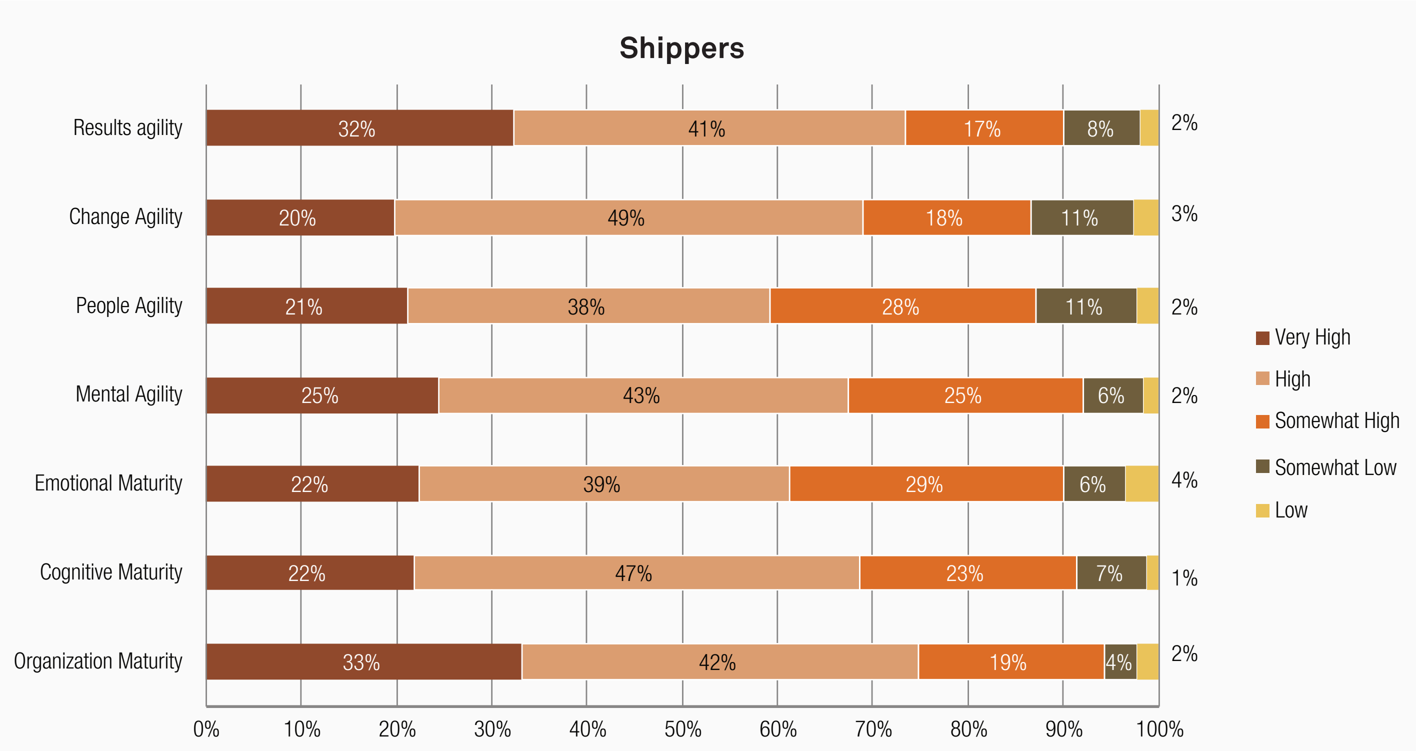
The leadership skills required to execute smart growth are different than those needed in a high growth phase. Scientists in the fields of organizational and industrial psychology have developed a library of 67 leadership competencies known as The Lominger Competency Model; Lominger is a Korn/Ferry-owned company. This research documents how various combinations of leadership competencies will result in successful executive behaviors, or failure. Companies use this common standard to measure their current and emerging leadership talent, which can be applied via a human capital assessment process.

This work has demonstrated that to succeed in an era of sideways growth, leaders must excel in two main areas, leadership maturity — their ability to operate effectively at the appropriate level of complexity, ambiguity and scale —and learning agility, their ability to operate effectively at the appropriate level of disruption, speed and volatility.

There are several areas of competency within both maturity and agility:

- **Organization Maturity:** The ability to work with and navigate through the organization and its stakeholders.
- **Cognitive Maturity:** The ability to sense and respond to trends, information, data and insights.
- **Emotional Maturity:** The ability to stay in the most effective emotional state to get the best out of self and others.
- **Mental Agility:** Operates across domains, interested in unrelated areas and connects the dots to solve problems.
- **People Agility:** Reads people well, adapts to diverse groups and shows astute interpersonal judgment.
- **Change Agility:** Not afraid to challenge the status quo, tinkers constantly, introduces and follows through on change.
- **Results Agility:** Is able to get outcomes in diverse challenges, prioritizes quickly, sets and achieves goals in good and bad situations.
- **Self-Awareness:** Reflective about self and open to feedback, genuine interest in learning about and developing self.

Figure 19: Shippers See Relatively Strong Smart Growth Leader Qualities...



Source: 2014 18th Annual Third-Party Logistics Study.

Identifying Gaps

The Korn/Ferry research demonstrated that leaders need to possess advanced abilities in both maturity and agility to deliver optimal smart growth performance.

As seen in Figures 19 and 20, shippers express more confidence in the smart growth characteristics of their current leadership than 3PLs do for their own current leaders. Of the seven characteristics provided, shippers ranked 41% people agility and 39% emotional maturity as areas most needed for improvement. More than half of 3PLs see their leaders as in need of improved capabilities in emotional maturity and people and change agility, with those seeing deficits in cognitive maturity and mental agility at nearly the 50% mark.

Less-than-outstanding scores in each of these areas, unfortunately, can mean the difference between outperforming the market, merely keeping pace, or facing considerable obstacles to growth. Recall that one of the characteristics of the new normal marketplace is one in which a given competitive sector can sustain only one to two winners. By that measure, average leadership skills are not good enough to lead the business into an environment of overall low-growth market conditions.

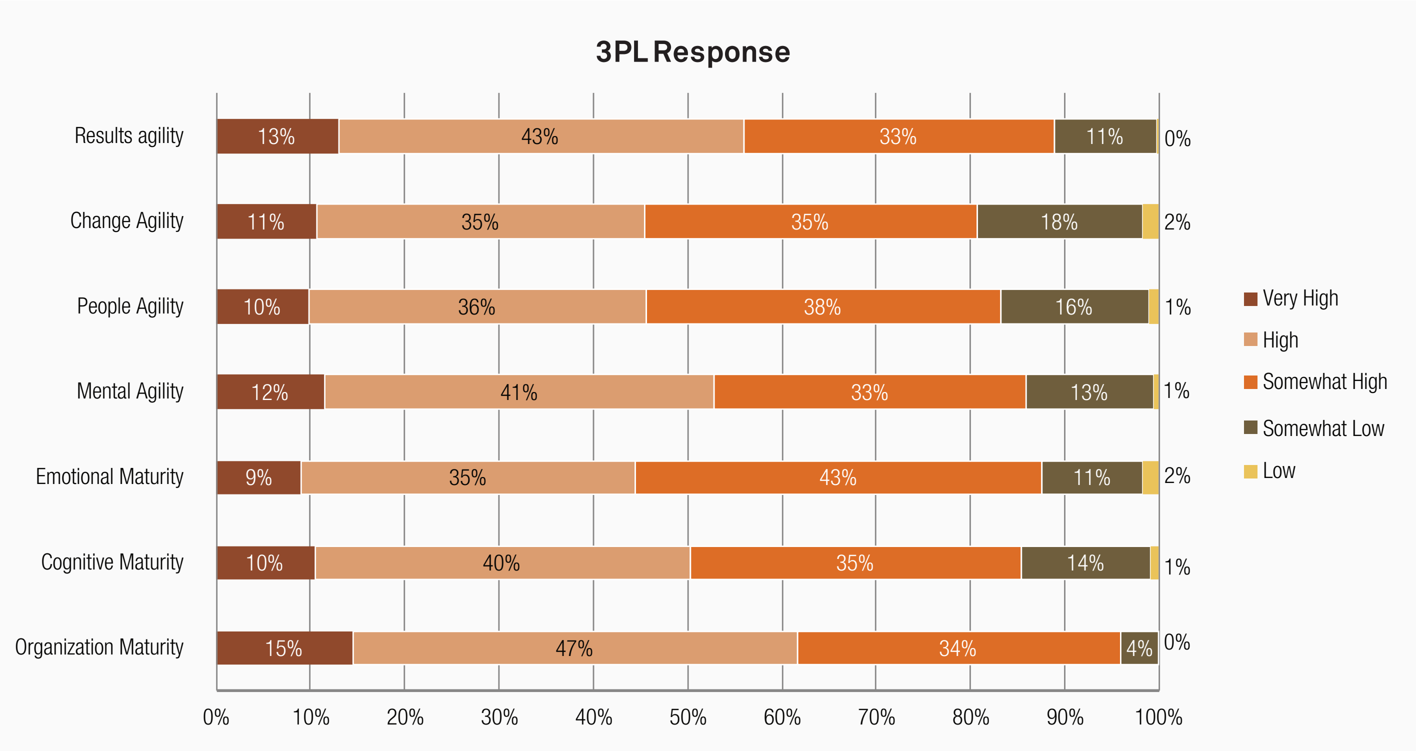
Compounding the Talent Issue

The 2012 *Third-Party Logistics Study* documented deficits in talent development programs for supply chain management professionals. The logistics industry continues to suffer a talent shortage, and isn't doing enough to attract interest in the field.

Unfortunately though, solving supply chain's talent needs requires more than simply attracting more talent, particularly for leadership roles. To succeed in a slow growth economy, shippers and 3PLs need leadership teams that demonstrate high levels of competency in the multiple aspects of maturity and agility described above.

Respondents' assessment of the maturity and agility capabilities of current leadership talent suggest there is room for improvement to increase some competencies from good to great. This can be addressed through a sustained commitment to both skill-building of current and prospective leaders within supply chain organizations and recruitment of candidates offering smart growth talents. Starting with an assessment of the current state of their leadership, supply chain organizations can map

Figure 20: ...While 3PL Leader Scores Lag a Bit



Source: 2014 18th Annual Third-Party Logistics Study.

a path toward excellence in the key leadership capabilities that will help them succeed and grow in the new normal.

Smart Growth: The Takeaways

- The skills demanded by supply chain leaders preceding and through the recession differ markedly from those required in the "new normal." GDP growth in mature markets has stalled at between 1% and 3% in mature markets; supply now outstrips demand; and businesses and consumers are careful with spending and risk-averse. A slight majority of shippers and 3PLs agree that the future will be more difficult than the recent past.
- An assessment of leadership skills by Korn/Ferry has demonstrated that to succeed in the new normal, leaders require a high degree of ability in several dimensions of maturity and agility. Shippers express slightly more confidence in the abilities of their current leadership in these than 3PLs do.
- But both assessments reveal considerable room for improvement in leadership competencies, particularly in people agility and emotional maturity. Supply chain organizations need a sustained commitment to both skill-building and recruitment to ensure the smart growth leadership skills necessary to succeed in the new normal marketplace.

Shipper-3PL Relationships

Seeking Balance in Cost vs. Quality

Tepid economic growth, inconsistent freight volumes, an emphasis on cost and risk containment: these very real economic conditions are rippling across global markets. They're also making a strong impact on the nature of shipper-3PL relationships.

The recent economic tumult has significantly impacted the landscape of third-party logistics providers. As the economy declined, shippers concentrated their outsourcing spend on a few close suppliers; as a result, a number of 3PLs ceased operations, leaving fewer to serve shippers as conditions improve.

The impact of the recession on shipper-3PL relationships remains unclear: Will they return to the path they were taking before the recession, or is there a shift in shipper-3PL interactions, with a new set of attitudes and expectations in the way the two parties interact?

3PL Selection Emphasizes Quality

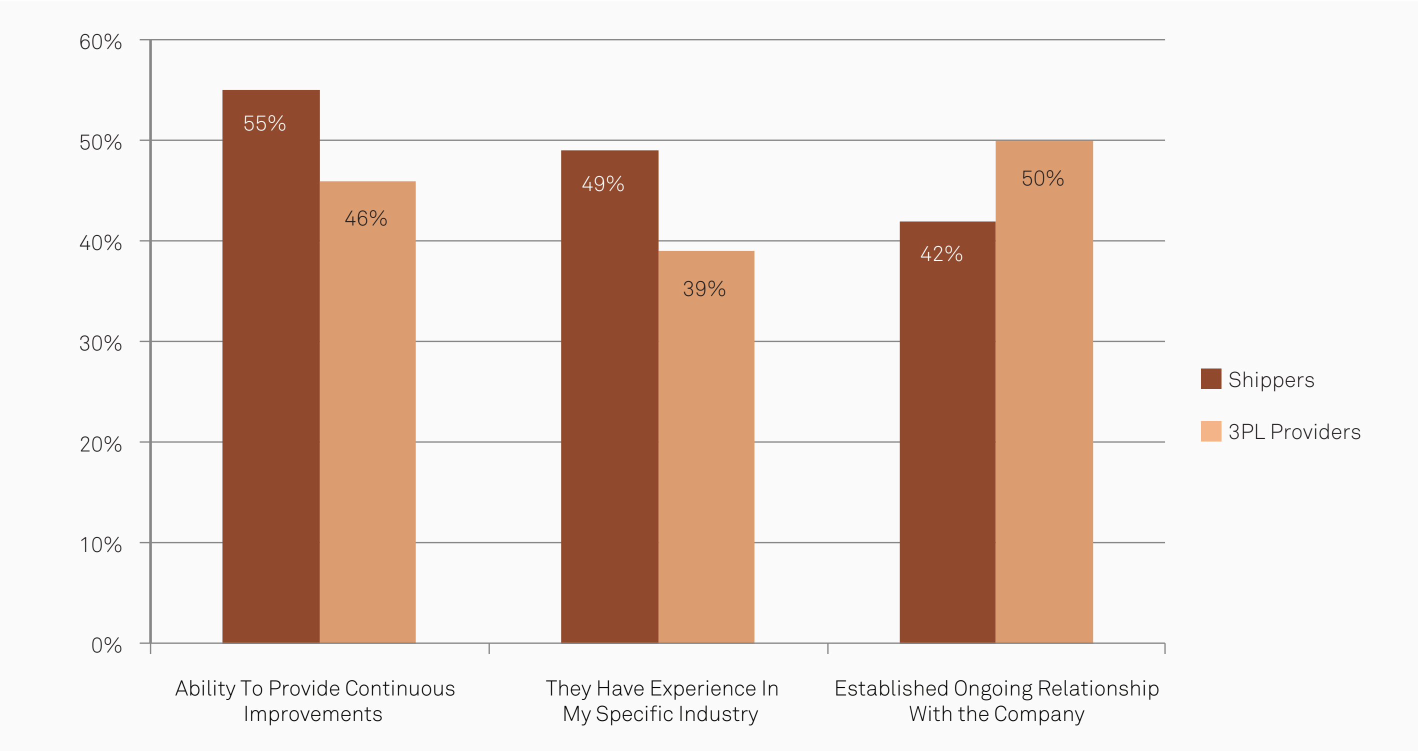
One telling indicator of the nature of shipper-3PL relationships lies in the process and criteria shippers use to select 3PLs.

As seen in Figure 21, shippers and 3PLs agree on the top three most important selection criteria for choosing a 3PL. However, shippers value the ability to provide continuous improvements most (55%), followed by experience in the shipper's industry (49%) and established ongoing relationship (42%). The 3PLs put ongoing relationship first, followed by continuous improvement and industry experience.

3PLs note, however, that shippers can sometimes reject a 3PL strongly associated with a different vertical, not always seeing the strong parallels to their own industry. At the Amsterdam workshop, however, one shipper did note that "I want a 3PL to know my industry and offer insights from other industries," recognizing the value of cross-pollination of ideas.

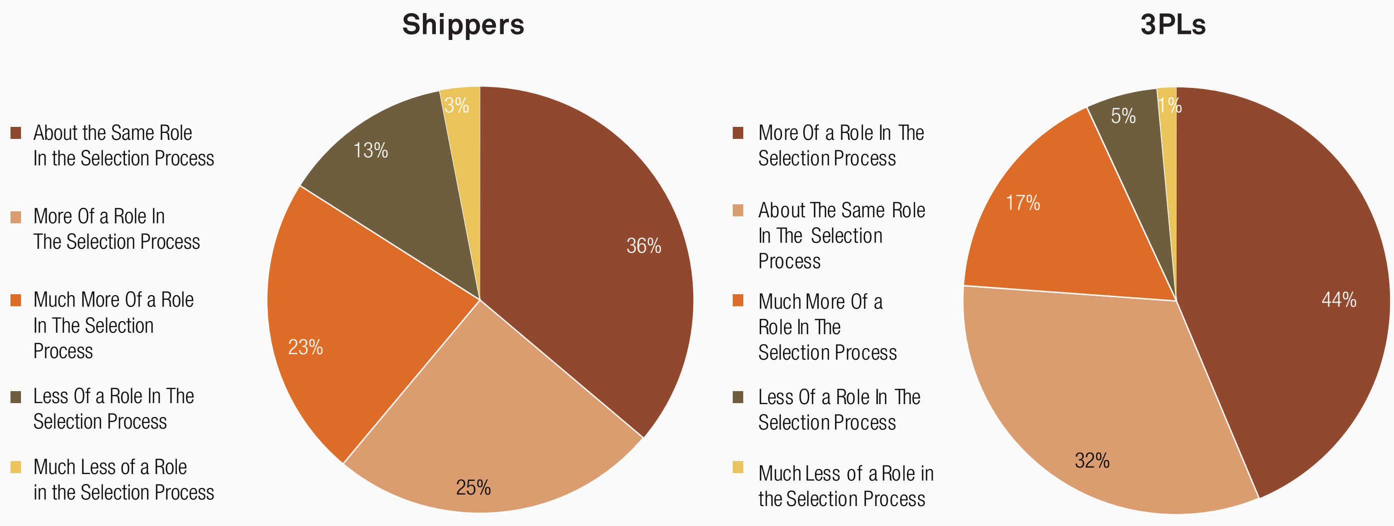
Both sides consider procurement department approval the least important factor in 3PL selection. Yet, as seen in Figure 22, nearly half of shippers (48%) and 61% of 3PLs say centralized procurement functions are playing more or much more of a role in the selection process compared with three years ago.

Figure 21: Shippers, 3PLs Agree on Top Selection Factors



Source: 2014 18th Annual Third-Party Logistics Study.

Figure 22: Procurement Plays Bigger Role in 3PL Selection



Source: 2014 18th Annual Third-Party Logistics Study.

Shippers appear to be seeking strategies to control costs while striving for optimal 3PL relationships by seeking a balance between centralization and decentralization of their sourcing decisions. These strategies include splitting sourcing decisions into multiple corporate purchasing groups, creating a region or brand-focused matrix, or forming a Strategic Procurement Council consisting of major business sourcing leaders working alongside the central procurement function to agree upon sourcing strategies.

The close scrutiny of costs that came out of the recession seems to be part of the new normal when it comes to choosing 3PL partners, but shippers are still recognizing the important role of quality and relationship. An overwhelming 91% of shipper respondents said they regard their relationships with 3PLs as important or strategic, versus being of casual or minimal importance.

Collaboration Is Up

The majority of shippers and 3PLs say their relationships have grown more collaborative over the past three years, with shippers even more likely than 3PLs to say they are much more collaborative (Figure 23).

Several industry reports attribute the increase in collaboration to internal changes such as the new approaches to sourcing cited above, as well as external factors such as rising rates, capacity constraints and supply chain disruption.

Anecdotally, over the past half year some 3PLs report an increase in first-time outsourcing among companies previously using only internal resources. Likely, these are part of an ongoing trend toward a net increase in logistics outsourcing documented in the Current State of the 3PL Market chapter. 3PLs attribute this to a new asset- and people-light approach resulting from the recession. Even as order activity increases, shippers are hesitant to commit capital and infrastructure to support it. Instead, they're shifting asset and people investment — and risk — to 3PLs.

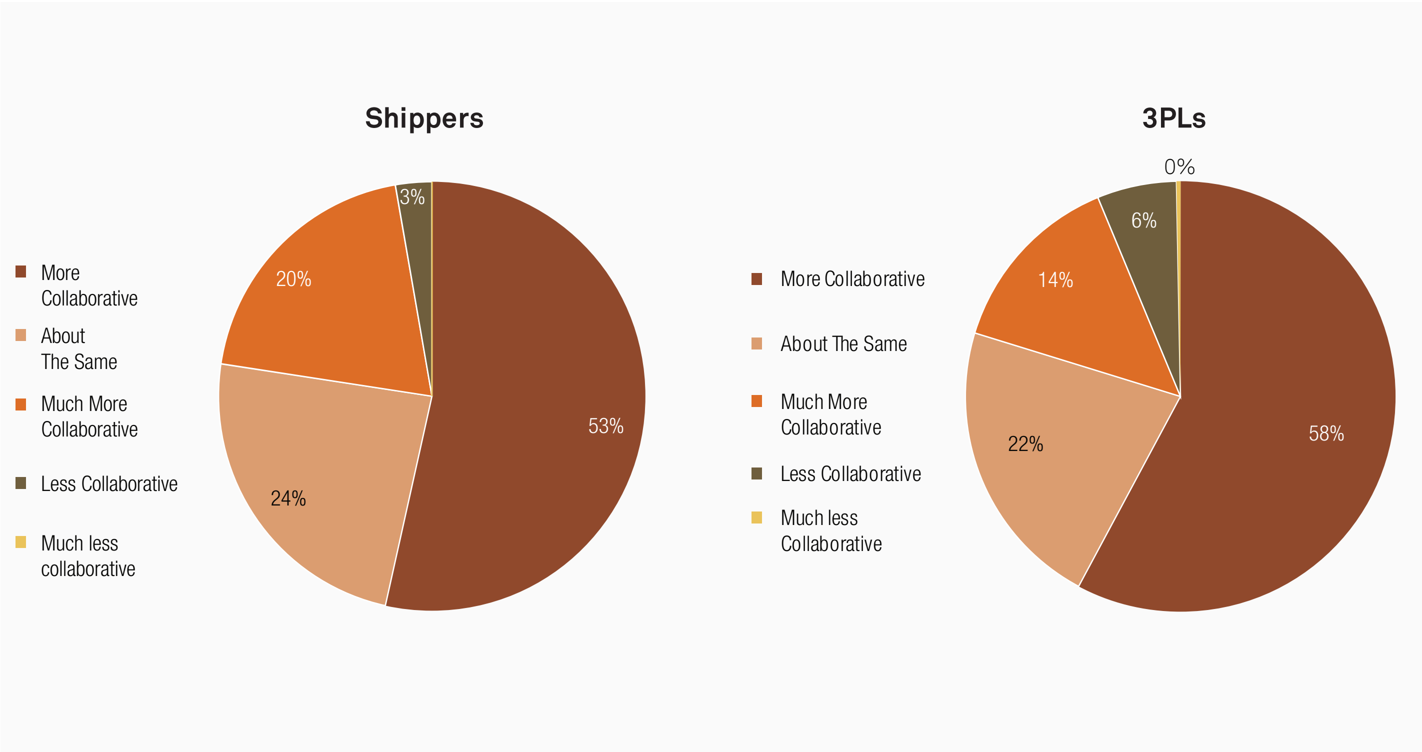
So as a 3PL does more for a shipper — say, take over operations of their warehouse or fleet — this inherently demands more interaction among the two parties. Such intimate involvement in a shipper's day-to-day operations provides a 3PL with deep knowledge of that shipper's operations, and therefore ripe opportunity to perceive new opportunities for supply chain improvement.

Collaboration opens the door for more strategic relationships among shippers and 3PLs. In order to attain more highly functioning and cost-effective supply chains, shippers need strong, lengthy and partner-focused relationships with their 3PLs and 4PLs.

These provide the foundation for innovation. As the industry matures and innovation becomes more difficult, the focus is shifting to growth via innovative relationships. In a sideways growth market, traditional routes to innovation, such as process improvements, improved execution and new services, do not deliver the payoffs they would in a higher growth economy. Instead, innovation must come through relationships, using tools such as gainsharing to share both risk and reward. As seen in the Current State of the Market chapter, 47% of shippers say they have used a gainsharing approach, and 68% agree that "3PLs provide us with new and innovative ways to improve logistics effectiveness."

Third-party logistics providers have been understandably concerned about the possibility that centralized procurement will lead to an increased prioritization of price over quality in 3PL selection. Shippers that can properly balance of cost and quality and strive for strategic, collaborative relationships with 3PLs stand to gain considerable strategic advantage.

Figure 23: Shipper-3PL Relationships Grow More Collaborative



Source: 2014 18th Annual Third-Party Logistics Study.

Shipper-3PL Relationships: The Takeaways

- The marketplace is still determining the degree to which shipper-3PL relationships have been altered as a result of the recession. The good news is that shippers continue to cite factors such as the ability to provide continuous improvement (55%), experience in the shipper's industry (49%) and established ongoing relationship (42%) as important selection criteria.

- One new pattern is the increased reliance on centralized sourcing in 3PL selection. Nearly half of shippers (48%) and 61% of 3PLs say centralized procurement functions are playing more or much more of a role in the selection process compared with three years ago.

- Allaying those concerns somewhat is the finding that the majority of shippers and 3PLs say that their relationships have grown more collaborative over the past three years. Shippers that can strike the right balance in sourcing decisions and build strategic 3PL relationships set the stage for considerable strategic advantage.

Strategic Assessment

Balancing the bid process

Globalization, competition and shifting economic conditions are now causing shippers to continuously re-evaluate their supply chain strategies, including their relationships with 3PLs. Many shippers seem to view putting contracts out for bid and shortening contract lengths as important steps in containing costs and taking advantage of the competitive environment among 3PLs.

Last year's 2013 *Annual 3PL Study* revealed that almost half of initial contracts cover three years, but while 75% of the time shippers renew with the same provider, subsequent contracts are more likely to be for only one to two years.

As we have explored in past *Annual 3PL Studies*, however, neither short-term contracts nor the solicitation and onboarding of new providers help to establish solid foundations for mature, strategic shipper-3PL relationships. Understanding the cost of change—both to the shipper and to the shipper's customers—is critical to organizations that are outsourcing or are considering changing service providers.

The strategy of switching providers can impact several relevant types of costs, a few of which are listed below:

- **Relational switching costs:** Personal and brand relationship costs, which involves psychological or emotional discomfort.

- **Procedural switching costs**: Economic risk and time and effort spent on evaluation, learning and setup costs.

- **Financial switching costs:** Benefits loss and financial loss.

Other potential pitfalls include operational delays, relationship failures and procuring a 3PL whose business model turns out to be non–complementary.

Engaging in contracts of three years or longer and staying with a trusted 3PL partner, on the other hand, is associated with several mutual benefits for 3PL and shipper. Beyond just avoiding switching costs, there is the comfort of a known quantity: sales familiarity, the 3PL's knowledge of the customers' business, better customer service, and better IT, processes and organizational integration.

But long-term relationships also set the stage for strategic services that are too costly for 3PLs to provide to shippers that are only in it for the short-term: Higher flexibility, access to specialized knowledge and capabilities, and the ability to engage in financial incentives and value-added services.

Survey results over the past few years indicate that contract renewal is highly dependent on the relationship, value and quality of service provided by the 3PL. Often 3PLs can put their best foot forward in customer relationships only when they have the mutual trust and financial leeway that stems from long-term, mutually beneficial long-term contracts.

Will shippers recognize that the risk/reward often favors longer-term contracts and reverse this trend, or will shorter contracts become the norm?

Exploring the Risks/Rewards of Africa

A growing number of international firms are noting in today's Africa some of the same signals of growing opportunity that characterized Asia in the 1970s. These include fast-growing economies, an abundance of low-cost labor and a commitment to improve infrastructure and remove barriers to trade.

But like any emerging market, Africa represents risk as well, from politics and corruption, to inadequate security, to significant infrastructure deficits, particularly in electricity. Despite these, recent research found firms already operating in Africa are highly positive about the continent's prospects and are ramping up their investments while others continue to flirt with the market opportunity.

Following are some key indicators of the rise in African opportunity:

- The International Monetary Fund forecasts that 11 of the world's fastest-growing economies through 2017 will be African.

- Africa hosts the world's fastest growing and youngest population and a growing middle class, attracting investment from international companies including Wal-Mart and Yum! Brands.

- Democracy is slowly taking hold, with 24 countries in Africa and the Middle East holding elections in the past two years.

- Africa is experiencing rising GDPs, increasing productivity and strong international investment, especially from China, which is spending one-third of its outward investment — $100 billion — in Africa and the Middle East.

But operating in Africa does require overcoming some significant barriers to trade. Clearance of goods at ports can be slow, cumbersome, and highly bureaucratic. Countries in Africa still have high logistics costs due to inefficiencies and lack of skilled supply chain personnel. Significant deficits in physical transport infrastructure are estimated to depress productivity by 40%. African leaders are working to address these; for example, more than 800 active infrastructure projects across different sectors were underway in Africa in 2012.

Nigeria is one example of a country seeking to enhance its attractiveness for investment and trade.

Nigeria ranks among Africa's largest consumer markets and offers growth opportunities in many industry sectors for exports such as aerospace, agricultural products, telecom, pharmaceuticals and consumer goods. Other features include a booming telecom market; abundant mineral, agricultural and human resources; a large consumer market and skilled and low cost labor.

Nigeria is courting private investment to build out its capabilities in power, railways, roads and oil and gas. Right now, many companies install expensive diesel power production equipment to compensate for insufficient power. Although Nigeria's government devotes a substantial portion of its budget to security, companies must prepare for outbreaks of violence in hot spots. Nigeria loses over US $5 billion dollars annually in import duties to smuggling, so in 2010 the government lifted some import prohibitions in favor of duties and levies. Nigeria also presents challenges in enforcement of international property rights, copyright laws and port corruption and congestion.

Nigeria in some ways is a microcosm representing both the risks and rewards of doing business in Africa. Despite the challenges, the African logistics market is projected to grow from US $128.5 billion in 2012 to US $157.3 billion in 2016. To succeed in African logistics, companies must cultivate strong relationships. There are many suppliers, carriers, retailers, and 3PLs in the African logistics industry and all of them do things differently due to their unique operating environments – perhaps spelling opportunity for those who can make them more efficient.

Will current levels of investment in African logistics be enough to push the market to the tipping point, where companies see the rewards as outweighing the risks?

Opportunities in Omni-channel

Today's empowered, smart phone-equipped consumer demands to engage with retailers when they want, where they want and how they want. They want to start a transaction from one sales channel and then shift to another, and they expect the retailer to get them the product they want quickly no matter where it is physically located. They want to be individually recognized and rewarded for their business in ways they find valuable. And if they can't get fast service and satisfying rewards from one retailer, they'll quickly move on to another.

But delivering this seamless customer experience is a significant challenge for most retailers. Their legacy infrastructure was built to support individual sales channels and segment groups of customers by channel, not individuals. At the same time they're working to transform the customer-facing experience, retailers are challenged on the back end to optimize inventory management and their supply chains, enabling real-time, enterprise-wide insight into inventory, as well as a flexible supply chain that supports dynamic inventory movement across channels.

According to the *2013 RIS News/Gartner Retail Technology Study*, just 20% of retailer respondents are using up-to-date technology for real-time inventory visibility, 24% for distributed order management and 16% for multi-channel fulfillment — key elements of optimizing inventory in an omni-channel environment. The majority of respondents are undertaking upgrades of these systems, with an ultimate goal of migrating to a single, flexible platform to manage the entire business.

Optimizing inventory starts with inventory virtualization, in which a single inventory stream replaces disparate inventory silos and, via a software solution, is virtualized for each sales channel. Virtualized, channel-agnostic inventory visibility is especially essential to saving the sale in the store. Customers are far less likely to leave empty-handed when an associate can find an out-of-stock item somewhere else in a retail enterprise, provide accurate, up-to-date product information and take an order on the spot.

Retailers are also increasingly seeking to fulfill e-commerce, mobile commerce and call center orders from store inventory. Stores are also becoming the hub for the in-store Web order pick-up and home delivery options being offered by a growing number of retailers.

Cloud and RFID are enabling technologies to omni-channel inventory management, allowing retailers to quickly locate desired inventory and track inventory status via a central data repository. But the true power comes from the ability to forecast and respond to demand through complete visibility into and nimble control of inventory, enabling retailers to boost market basket sizes, satisfy demanding consumers and reduce markdown costs and inventory write-offs.

Many 3PLs offer the critical experience, capital expenditure, time, and resources essential to helping retailers facilitate the strategic management and distribution of dynamic inventory and support execution of in-demand services, such as free shipping and same-day delivery. With the flexibility and dynamic capacity they can provide, 3PLs are well-situated to help retailers attain their goal of a single, seamless, agile omni-channel network.

Will retailers recognize the value 3PLs can add in helping them attain their omni-channel visions?

Think Globally, Act Locally for Talent

Most leaders in the global 3PL space would agree that more needs to be done in the interest of achieving diversity and inclusiveness, and also to broaden the look, feel, experience and collective of knowledge of 3PL talent. Multinational organizations need every advantage they can find to compete for top talent and to win in today's marketplace. Successful inclusion initiatives give organizations a distinct competitive advantage, yet many organizations struggle with how to create and implement a successful effort.

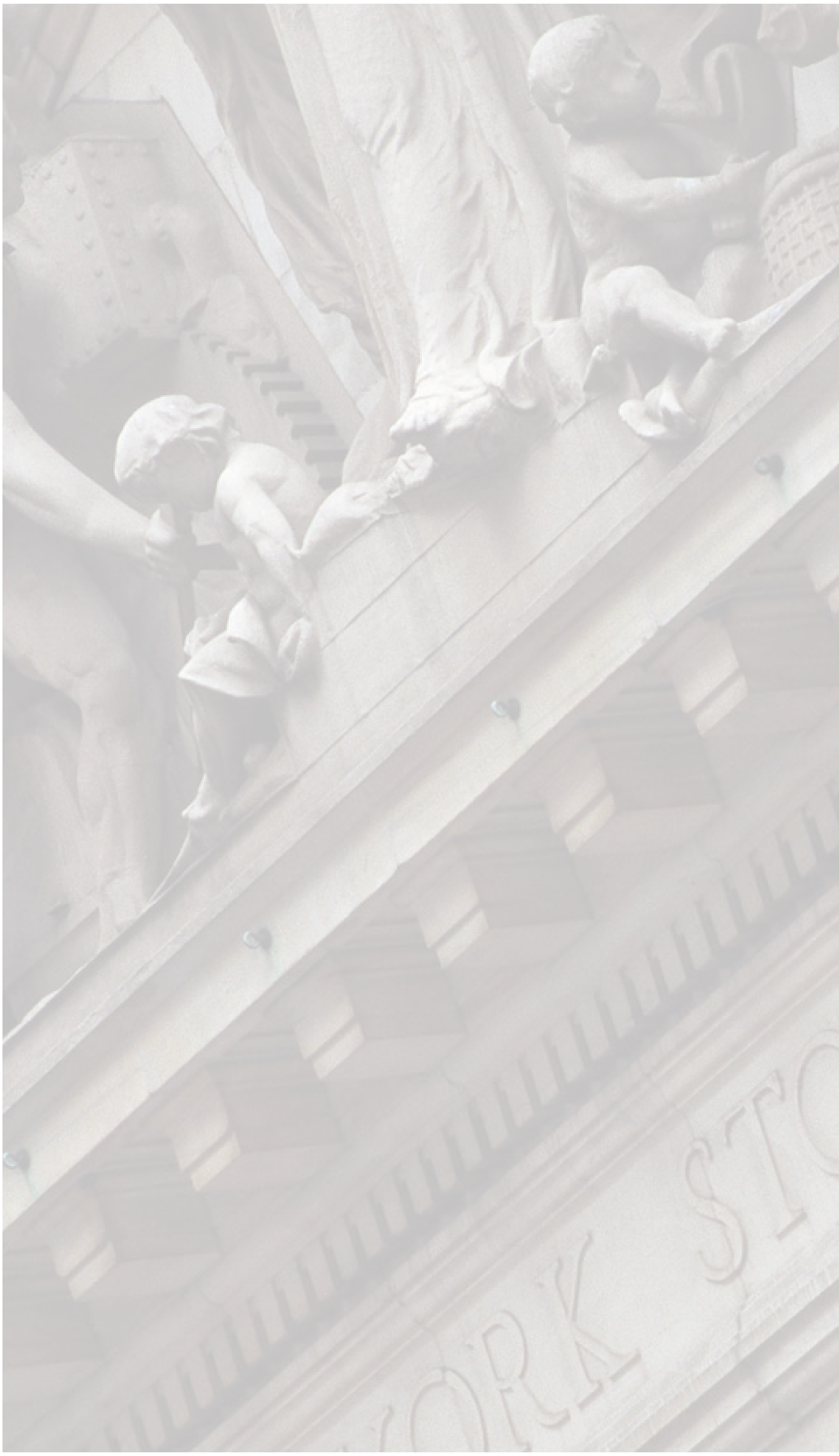
Leveraging the Think Globally, Act Locally mindset is key for organizations that are serious about meeting the needs of diverse employees, clients and suppliers.

- Think globally in order to recognize the need for unity of a corporate strategy with shared Vision, Mission, Values, and Long-Term Objectives.

- Act locally to recognize the need for regional and local action plans that take into account the particular location's core inclusion issues, business case for managing differences, and utilize a culturally appropriate process for change.

Research at Global Novations (a Korn/Ferry International Company) shows that companies who are both diverse AND inclusive (well-managed to get the best out of all employees, regardless of differences) out-perform companies who aren't. Korn/Ferry's definition of "diversity" is much broader than the traditional definition of race, gender and ethnicity. The company defines diversity as everything that makes an individual unique, which includes the more traditional aspects, but also includes generation, socioeconomic status, education, thinking style, and so much more. When companies can leverage the unique perspectives, backgrounds and experiences of their workforce, they will enjoy more innovation and productivity than ever imagined.

Are those in the 3PL space prepared to make the investments and changes needed to broaden the diversity of their talent?



About the Study

For 18 years this study has documented the significant transformation of the 3PL industry. In that time 3PLs have evolved from tactical service providers to become, in the most evolved relationships, collaborative partners delivering in many instances a comprehensive suite of integrated logistics services. Dr. C. John Langley, Clinical Professor, Supply Chain Information Systems and Director of Development, Center for Supply Chain Research at Smeal College of Business at The Pennsylvania State University, initiated this study to capture and measure this rapidly evolving industry.

The *Annual 3PL Study* now serves as a vital tool for use by shippers and 3PLs, and a widely anticipated, heavily referenced index on the state of the 3PL industry.

In a year-round process, the study team establishes topics of interest, develops the survey tool, conducts the research, analyzes the results, writes this report and presents and shares the findings. The study has evolved in both reach and scope.

This year's survey process, however, has been a departure from the norm. The survey instrument is typically well received by members and affiliates of the *Annual 3PL Study's* partner organizations, attracting 1,393 respondents. But this year's survey participation fell off significantly. The study team attributes the change to a variety of factors, from competing priorities to survey fatigue among prospective respondents.

As a result, results included in the Current State of the 3PL Market chapter rely primarily on data gathered from respondents in North America and Europe. Readers are asked to be cautious about comparing the data in this report to data from previous *Annual 3PL Study* reports, since the base of respondents is more geographically limited.

The Annual 3PL Study Process

Steps and elements of the development of the *Annual 3PL Study* include:

Accessibility: Links to the Web-based survey tool are circulated through *Annual 3PL Study* partner organizations for distribution to their members and affiliates. This year's survey circulated in mid-2013, garnering 812 usable responses, from both users and non-users of 3PL services, as well as responses to a separate, related version of the survey by 581 respondents from the 3PL sector. The study report and additional materials are also presented via its own Web site, www.3PLstudy.com.

Topics: In addition to measuring core trends in the 3PL industry, the *Annual 3PL Study* conducts in-depth examinations of contemporary supply chain topics that affected both users and providers of 3PL services. This year's topics include Big Data, preferential sourcing, smart growth and shipper-3PL relationships.

Contributing Sponsors: The *Annual 3PL Study* is jointly owned by Capgemini and Dr. Langley. Sponsors of the 2014 18th *Annual 3PL Study* are Korn/Ferry International, Penske and eyefortransport.

Multiple Research Streams: A distinguishing feature of the *Annual 3PL Study* is the multiple streams of research the study team undertakes to validate and illuminate the findings in this report. The team solicits survey topic ideas throughout the year from key industry participants and through desk research conducted by the team and by Capgemini's Strategic Research Group, which also helps to vet potential topics of interest. Survey topics and questions attempt to reflect key issues and trends facing both users and providers of logistics services. Following the survey, the team conducts intensive, one-day facilitated shipper workshops that enable the team to work side by side with shippers to explore survey results in the context of overall industry trends to discover deeper implications.

This year the team conducted two such interactive workshops, one of which was held at a Capgemini Accelerated Solutions Environment® (ASE) in Amsterdam. (See *www.capgemini.com/ase* for more detail about ASEs.) An additional facilitated workshop was conducted Shanghai, China. The study team also worked with users and providers of 3PL services at the eyefortransport 3PL Summit and Chief Supply Chain Officer Summit held in Chicago, IL, USA, in June, 2013.

Wide Coverage: The *Annual 3PL Study* is presented and discussed in prominent supply chain industry venues, such as the following:

- Presentations at influential industry conferences, such as the Council of Supply Chain Management Professionals (CSCMP), eyefortransport 3PL Summit and Chief Supply Chain Officer Summit, annual THINK! events conducted by The Logistics Institute – Asia Pacific in Singapore and the Gordon Institute of Business Studies (GIBS), the business school of the University of Pretoria in Johannesburg, South Africa.

- Analyst briefings, typically conducted in the weeks following release of the annual study results in the fall of each year.

- Magazine and journal articles in publications such as *Supply Chain Management Review, Logistics Management, Inbound Logistics, Logistics Quarterly, Supply Chain Quarterly and Supply Chain Digest.*

- Webcasts conducted with media and publications such as *Supply Chain Management Review, Logistics Management,* Stifel Nicolaus, and others.

Supporting Organizations: Each year a number of supply chain organizations facilitate the research process by asking members and other contacts to respond to the survey. In addition to completing the survey, individual companies help out by enabling executives to participate in facilitated workshops and by lending subject matter expertise. Please see the Credits page for a listing of these valued contributors.

Definitions: Survey recipients were asked to think of a "third-party logistics (3PL) provider" as a company that provides one or more logistics services for its clients and customers. A "fourth-party logistics (4PL) provider" is one that may manage multiple logistics providers or orchestrate broader aspects of a customer's supply chain. To ensure confidentiality and objectivity, 3PL users were not asked to name which specific 3PLs they use.

2014 Third-Party Logistics Study Goals

Research and analysis for the **Current State of the Market** chapter sets out to:

- Understand what shippers outsource and what 3PLs offer.

- Identify trends in shipper expenditures for 3PL services and to recognize key shipper and 3PL perspectives on the use and provision of logistics services.

- Update our knowledge of 3PL-shipper relationships, and to learn how both types of organizations are using these relationships to improve and enhance their businesses and supply chains.

- Quantify the benefits reported by shippers that are attributed to the use of 3PLs.

- Document what types of information technologies and systems are needed for 3PLs to successfully serve customers, and to assess the extent to which this success is being achieved.

- Examine why customers outsource or elect not to outsource to 3PLs.

Goals for the **Special Topic** chapters include:

- **Big Data:** Understanding survey respondents' attitudes, activities and intentions around Big Data and its potential to improve the functioning of supply chains. The research also explores opportunities and obstacles in Big Data usage within shipper organizations as well as in shipper 3PL relationships.

- **Preferential Sourcing:** Considering the implications of the expanding array of preferential trade agreements for supply chain operations. The study team also investigates how shippers use organizational changes, new processes and technology in working with PTAs, as well as the role of 3PLs in aiding shippers' PTA efforts.

- **Smart Growth:** Understanding how the new normal economy is impacting the characteristics and capabilities required in supply chain leaders. The research also seeks to define those qualities and the gap between the ideal and the capabilities of current leaders.

- **Shipper-3PL Relationships:** Defining the degree to which shipper-3PL relationships have been altered as a result of the recession, and how changes in sourcing strategies are impacting 3PL selection processes.

- Based on what was learned from the study process, the team uses the **Strategic Assessment** to takes an introspective view of the **future of the 3PL industry and shipper-3PL relationships.**

About the Respondents

Shippers: Figure 24 reveals the percentage of shipper respondents, including both users and non-users of 3PL services, and the percentage of 3PLs. The non-user responses are useful because they provide valuable perspectives on why they do not currently use 3PLs at this time, as well as on a number of other relevant topics. Shipper respondents are typically managers, directors, VPs and C-suite executives.

Figure 25 reflects the eight largest industries of respondents using 3PL services, accounting for almost 82% of the overall respondents.

Figure 26 includes all shipper respondents' anticipated total sales for 2013. As with last year's study, 21% of the respondents represent companies in the lowest sales category – a higher percentage than in previous years.

3PLs: 3PL executives and managers responded to a similar, but separate version of the survey. 3PL respondents represent: 1) several operating geographies; 2) an extensive list of industries served (actually quite similar to the shipper-respondent industries); and 3) a range of titles, from managers to Presidents/CEOs. Approximately 39% of the 3PL firms expected 2013 company revenues in excess of US $1 billion (approximately €750 million), while about 48% reported revenues of less than US $500 million (approximately €375 million).

Figure 24: Breakdown of Respondents

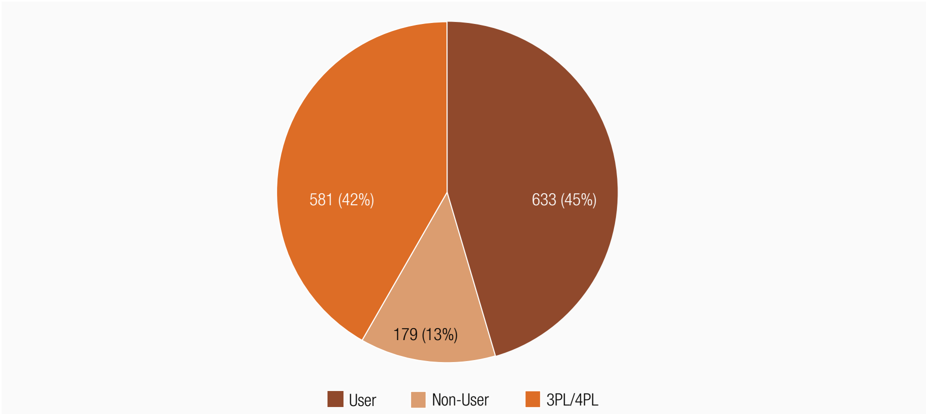


Figure 25: Industries Represented by Shippers

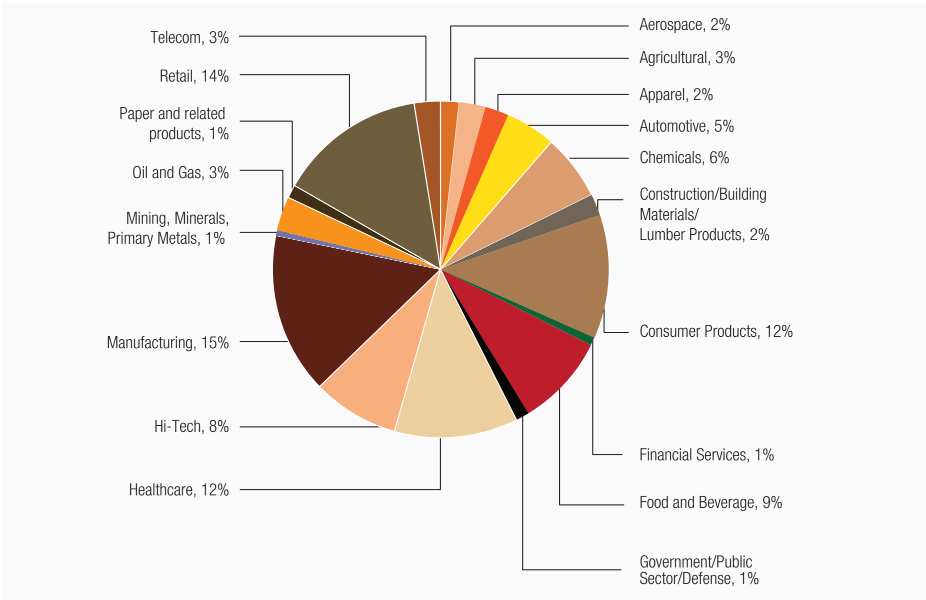
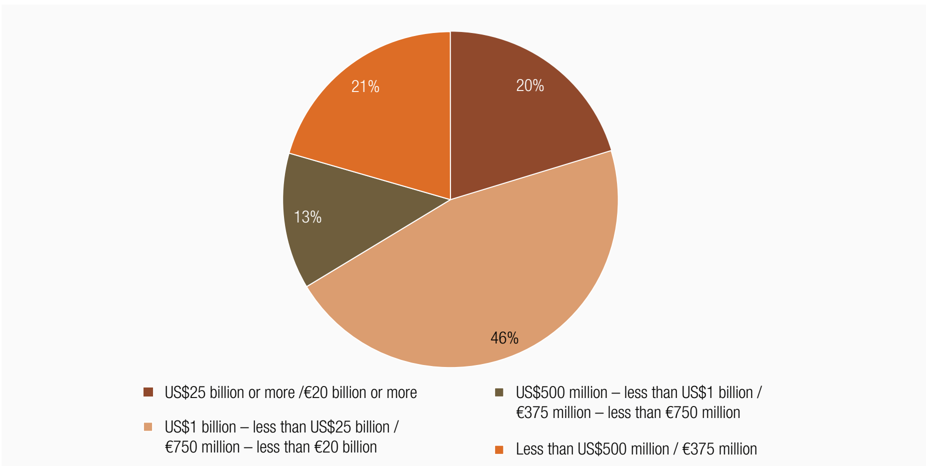


Figure 26: Two-Thirds of Shippers had Anticipated 2013 Sales of $1 Billion (€ 750 Million) or More



Source: 2014 18th Annual Third-Party Logistics Study.

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Penn State is designated as the sole landgrant institution of the Commonwealth of Pennsylvania. The University's main campus is located in State College, Pennsylvania. Penn State's Smeal College of Business is one of the largest business schools in the United States and is home to the Supply Chain & Information Systems (SC&IS) academic department and the Center for Supply Chain Research (CSCR). With more than 30 faculty members and over 600 students, SC&IS is one of the largest and most respected academic concentrations of supply chain education and research in the world. SC&IS offers supply chain programs for every educational level, including undergraduate, graduate, and doctorate degrees, in addition to a very popular online, 30-credit professional master's degree program in supply chain management. The supply chain educational portfolio also includes open enrollment, custom, and certificate programs developed by Smeal's Penn State Executive Programs and CSCR, which helps to integrate Smeal into the broader business community. Along with executive education, CSCR focuses its efforts in research, benchmarking, and corporate sponsorship. CSCR corporate sponsors direct the Center's research initiatives by identifying relevant supply chain issues that their organizations are experiencing in today's business environment. This process also helps to encourage Penn State researchers to advance the state of scholarship in the supply chain management field.

Penn State's Smeal College of Business has the No. 1 undergraduate and graduate programs in supply chain management, according to the most current report from Gartner.

For more information, please visit
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1) To provide executive networking opportunities in the supply chain & logistics industries via the more than 15 events we annually organize and host in North America, Europe and Asia and online via the tens of thousands of users of www.eft.com. The events are designed to complement and enhance the business connections available through our online network, and bring together the industry elite. Regularly attended by CEOs and senior management from the transport and logistics industry and Heads of Supply Chain of major companies, the events focus on current developments and latest trends, and are enhanced by high-level, exclusive networking opportunities.

2) To deliver industry education through dozens of industry reports, surveys, newsletters, webinars and senior-level presentations at leading events.

For the list of current research, news and conferences we produce please visit www.eft.com.

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