

The State of Logistics Outsourcing
2008 THIRD-PARTY LOGISTICS

results and findings of the 13th annual study

contents

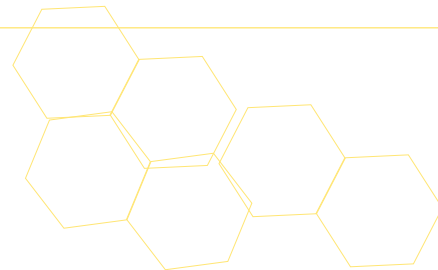
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Executive Summary

The State of Logistics Outsourcing in 2008



This report presents findings from the 2008 13th Annual Third-Party Logistics Study, which tracks the opinions and experiences of users of third-party logistics (3PL) services across the globe.

In mid-2008, 1,644 logistics executives completed a survey on trends and issues in third-party logistics. In addition, the study team conducted a facilitated workshop to interpret survey results, as well as focus interviews with experts on three special topics covered in this report: integrated logistics, green supply chain and supply chain security. The findings presented here are intended to help 3PLs and logistics outsourcers better understand and more effectively manage their relationships.

Current State of the 3PL Market

3PL users highly value their 3PL relationships, with 89% of all users surveyed agreeing they represent a strategic, competitive advantage to their companies. That sentiment is borne out by savings in costs and fixed assets and shorter order cycles. 3PLs are also delivering customer service and business process efficiencies. But these benefits result only from deliberate efforts to form strong relationships and through the use of detailed contracts that include clear expectations and metrics.

Due diligence is required to ensure proposed 3PL partners have demonstrated the ability to meet service-level commitments, invest in continuous improvements and achievements in service offerings, and reduce costs — the most common problems users have with their 3PLs. One area warranting particular scrutiny is a 3PL's planned technology investments; the gap between user IT expectations and 3PLs' ability to meet those expectations has persisted over several years of this study.

Although customers are spending more on average for logistics outsourcing, the percentage of budget devoted to outsourcing logistics, and the services outsourced, haven't changed dramatically over the past several years.

Companies continue their general tendency to outsource relatively commoditized services and to keep customer-facing or more strategic logistics services in-house.

Integrated Logistics

Historically, the needed integration of systems and services was accomplished by companies themselves as they purchased individual logistics services. Today, the 3PL sector has become a capable source of both systems and services integration for their customers. Often, this is referred to by 3PL marketers as “bundled,” “comprehensive,” or “one-stop shopping,” and usually involves integration of processes, technology, people, and services.

Three-quarters of 3PL users rely upon their 3PL providers for systems and services integration, particularly those with more mature, complex supply chains. Easing the burden of internal management, gaining efficiencies, lowering costs and improving overall effectiveness are highly valued benefits. But asking 3PLs to provide integration of systems and services may not be a fit for every situation. Loss of control, visibility and internal competency and perhaps most of all, fear of dependency by customers on 3PLs, make potential customers hesitate. These factors also may help to explain why some customers limit outsourcing contracts to more routine, commoditized services, instead of more innovative, strategic services. 3PL users should take steps to avoid excessive dependency and structure contracts that balance the costs and risks. What is clear is that assigning responsibility for the integration of systems and services requires serious thought and consideration.

Green Supply Chain

A substantial 86% of respondents agree that a green supply chain is somewhat or very important today and are almost unanimous (98%) in their belief that green supply chain initiatives are somewhat or very important to their companies' futures. However, survey questions regarding ROI, green as a factor in selecting 3PLs, and changing transportation modes reveal mixed opinions: Around one-half



of 3PL users are optimistic about taking action and reaping benefits from green initiatives while the other half are either unsure or even pessimistic. Clearly, there is widespread uncertainty about how to move forward with green supply chain initiatives.

Focus interview and workshop participants feel strongly, though, that doing nothing is not an option. They see transforming to a green supply chain as requiring three steps: becoming educated, measuring the company's carbon footprint and identifying change levers, and then embarking on business case-supported initiatives. Green initiatives should clear three hurdles: they must be acceptable financially, environmentally, and socially.

As green becomes a factor in operating a supply chain, those companies outsourcing these functions will inevitably rely on 3PLs to help satisfy green goals. The options for greening of supply chain operations range from small process changes, such as retraining drivers, to substantial capital investments including setting up green distribution centers. A number of changes, particularly those that involve improved use of transportation services, can be made today, often with the assistance of 3PLs. Generally, 3PL users would prefer that green supply chain initiatives not incur extra costs, but feel when costs do occur, they should be shared equitably between the 3PL and the customer. Early adopters are finding that green projects can generate savings. The ultimate challenge is to find ways that green can simultaneously reduce costs, increase revenues, and improve the environment.

Supply Chain Security

Government supply chain security regulations are highly focused on deterring terrorism, but for 3PL users, theft is the top-of-mind security concern. However, the changing business environment means companies must focus more attention on ensuring protection from a range of potential causes of supply chain disruption: other security threats, natural disasters, port or transportation shutdowns, and product tampering. Users are generally satisfied with 3PLs' security performance to date, with 76% calling their 3PLs secure or very secure. However, a review of specific supply chain security measures reveals a gap between 3PL users' expectations and the current security capabilities of their 3PLs.

3PL users believe physical security, collaboration and alerts are the most effective means for 3PLs to provide security. Users appear more concerned with the financial and operational effects of meeting compliance mandates than the

terrorist acts they're intended to prevent. Fortunately, there are a number of concrete steps companies and their 3PLs can take to assess and address security gaps, with attaining visibility, setting up the right processes, and minimizing touches being prominent among them. Perhaps the best news is that companies and 3PLs innovating in supply chain security have proved that these steps also yield considerable collateral benefits that help recoup costs and improve the overall state of the supply chain.

Strategic Assessment

Over the thirteen-year history of this study, we have seen considerable progress in 3PL-customer relationships, but growth has stalled in areas such as the type of services outsourced and 3PL investment in IT. To attain the potential benefits of engaging in more strategic, innovative services, 3PLs and users must step up their willingness to collaborate. Such behavior is also required for those seeking to successfully outsource the integration of supply chain systems and services. Openness to collaboration and use of integration-enabling technology by 3PLs are essential elements to successful use of 3PL systems and services integration.

While engaging a 3PL for integration of systems and services can be considered potentially powerful, but discretionary, our two other special topics, green supply chain and supply chain security, cannot be regarded as optional.

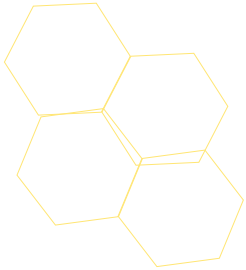
Green is rapidly becoming a measuring stick for supply chain success. The "greening" of the supply chain will have strong and increasing effects on both strategic and tactical aspects of supply chain management. Companies must act now to begin their green supply chain initiatives, and they must also take action to address the growing range of threats to the continuous operation of their supply chains. While compliance with government mandates is a growing burden, if the business community takes the lead in developing supply chain security solutions, there is a good chance that the collateral benefits of supply chain security will address the broader scope of risks and make a positive impact on balance sheets.

Supply chain executives continue to face new challenges in their quest to manage and adapt their operations to market conditions. In the thirteen years of this study, we have seen ample evidence that solid relationships between 3PLs and customers render both even better-equipped to address emerging issues such as environmental concerns, supply chain security demands, and whatever the next challenge becomes.



About the Study

Findings from the 2008 13th Annual Third-Party Logistics Study



The third-party logistics (3PL) industry has evolved considerably over the past two decades, and accordingly, so has this study. What has remained unique and consistent over this study's thirteen years is its exclusive focus on identifying and tracking key trends and views of the 3PL industry from the perspective of 3PL customers. The study also includes the views of those who currently choose not to use 3PLs.

What has changed is how we arrived at those perspectives as well as the scope of the respondent base. Once exclusively a survey, the 3PL study now includes three streams of research: a web-based survey, focus interviews with industry experts, and a facilitated Capgemini Accelerated Solutions Environment® (ASE) workshop. The geographic reach has also expanded; respondents now participate from North America, Europe, Asia Pacific, and Latin America as well as other areas such as South Africa and the Middle East. The number of industries covered has also increased.

Together, the broad reach and three distinct research streams enable us to conduct a comprehensive, multi-faceted analysis of attitudes, trends, and results experienced by 3PL users and non-users.

2008 Study Objective

The overall objective of the 2008 Third-Party Logistics Study is to explore trends and issues within the 3PL industry across major industry segments and across several diverse regions of the world.

Each year, the study results as well as greater industry developments suggest trends that warrant closer examination. Accordingly, the 2008 survey, conducted in mid-2008, includes in-depth questions relating to special topics of current relevance and importance. Included in the 2008 study are reports on integrated logistics services, green supply chain, and supply chain security.

The principal sections of the study and the goals for each section are as follows:

Current State of the Market:

- Summarize the current use of 3PL services
- Identify customer needs and how well 3PL providers are responding to those needs
- Understand how customers select and manage 3PL providers
- Examine why customers outsource — or elect not to outsource — to 3PL providers

Special Topics:

- Look into key issues relating to 3PL use, including provision of integrated service offerings, green supply chain, and supply chain security

Strategic Assessment:

- Provide strategic recommendations for the future of the 3PL industry



2008 Study Methodology

The practice of outsourcing to 3PLs has expanded considerably over time as supply chains have grown more complex and 3PL best practices have emerged. To assess these changes, the study team uses three channels of research.

Web-based Survey

During the spring and summer of 2008, 1,644 logistics executives in North America, Europe, Asia Pacific and Latin America responded to the web-based survey. A small number of executives in other areas such as South Africa and the Middle East also responded, although the numbers of responses were not sufficient for an in-depth analysis or understanding of the complexity of 3PL environments in those regions. To ensure confidentiality and objectivity, the respondents were not asked to name which specific 3PL providers they used.

Executives were contacted by email. The target respondent typically holds the title of Manager, Director, or Vice President of Logistics or Supply Chain Management in a number of key industries identified below. Those willing to participate in the survey were asked to click an Internet link that led them to an on-line survey. The survey was available in English, Spanish, Portuguese, French, German, and Dutch.

The database of logistics and supply chain executives was expanded to include executives in a wide range of industries, including automotive, chemical, construction/building, consumer products, food and beverage, high-tech and electronics, industrial manufacturing/defense industry, life sciences and healthcare, retail, and telecommunications.

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 and a “fourth-party logistics (4PL) provider” of logistics services as one that may include more advanced logistics outsourcing services than a conventional 3PL normally would provide.

Focus Interviews

A new feature of the 3PL study in 2008 is the use of “focus interviews” conducted with industry observers and experts, primarily relating to the examination of the special topics that were identified for this year. These focus interviews are exceptionally valuable opportunities to gather pertinent information and perspectives from a wide range of professionals who have knowledge about the 3PL sector and the special topics: integrated service offerings, green supply chain, and supply chain security.

ASE Session

We leveraged the Capgemini Accelerated Solutions Environment® (ASE) as a brainstorming setting where executives collaborate on shared issues. (For more about the ASE see www.capgemini.com/ase.) To better understand the results of the survey and to gain valuable perspective from 3PL users, the research team held a facilitated session at the ASE facility in Berlin, Germany in June, 2008, focused on the study objectives and on supply chain challenges related to the study material.

Follow-Up Activities

In addition to this publication, the results of the 2008 13th Annual Third-Party Logistics Study will be presented in a variety of venues. These include:

- Presentations at influential industry conferences such as the Council of Supply Chain Management Professionals (CSCMP), eyefortransport, Transport Intelligence, Industry Forum “Transportation,” and Think Logistics Series (The Logistics Institute Asia-Pacific – Singapore)
- Analyst briefings
- Magazine and journal articles
- A web site, www.3PLstudy.com, which includes the downloadable report as well as supplementary materials
- Company-specific events



The Supply Chain is Abuzz

There are many parallels between the daily challenges of operating a bee hive and managing a supply chain. Different types of bees — workers, drones, and the queen — perform tasks in an integrated fashion to accomplish the larger goals of the colony, much as activities like planning, sourcing, transportation and warehousing, and information technology must work together in a supply chain. Bees must be vigilant to fend off threats to the colony, ranging from invading hornets to foraging bears, just as a supply chain must be protected from security threats. Lastly, a bee hive must operate in harmony with its natural environment — a lesson supply chain executives are now beginning to embrace in green supply chain initiatives. Given our special focus on the topics of integrated logistics, green supply chain, and supply chain security, we believe the images of bees and their surroundings you see in this report appropriately symbolize these important issues.

FIGURE 1: THE 2008 3PL STUDY INCLUDES SEVERAL MAJOR GEOGRAPHIES

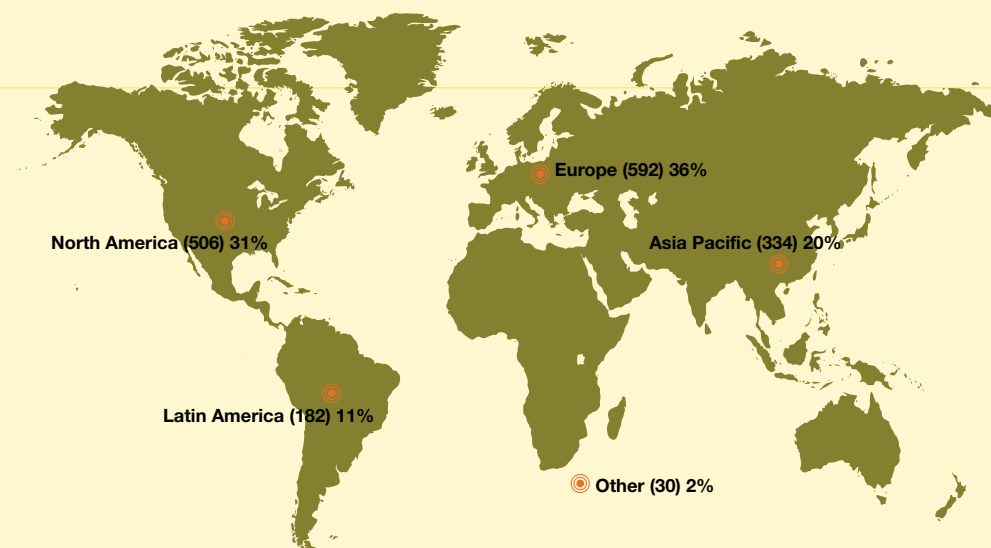


FIGURE 2: 3PL USERS SURVEYED REPRESENT A WIDE VARIETY OF INDUSTRIES

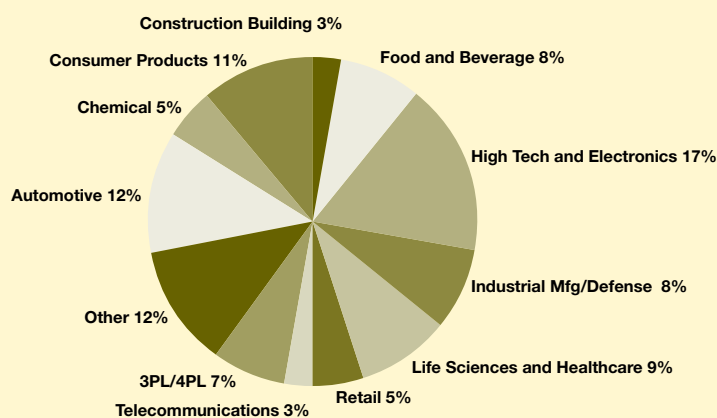


FIGURE 3: MORE THAN ONE-HALF OF 3PL USERS RESPONDING REPORT CURRENT SALES OVER \$US 1 BILLION (€700 MILLION)

Anticipated Total Sales for 2008		All Regions	North America	Europe	Asia Pacific	Latin America
High	US \$25 billion or more (€15 billion or more)	15%	14%	19%	14%	8%
Medium-High	US \$1 billion – less than US \$25 billion (€700 million – less than €15 billion)	41	47	44	38	15
Medium	US \$500 million – less than US \$1 billion (€350 million – less than €700 million)	16	17	15	16	17
Low	Less than US \$500 million (less than €350 million)	28	22	22	32	60

Current State of the 3PL Market

Most Customers are Satisfied, But Improvement Opportunities Continue to Exist

In the thirteen-year history of this study, it's become clear that companies across industries and around the globe regard logistics and supply chain management as intrinsic to their success. Many place a high value on their partnerships with third-party logistics (3PL) companies. They credit 3PLs with helping them to attain goals related to service, cost, and customer satisfaction.

In this study, 1,644 logistics and supply chain executives share their experiences as customers or non-customers of 3PLs, revealing important trends that can help others shape and enhance their own 3PL relationships. See **Figures 1, 2, and 3** on the page at left for more information on the geographic, industry and revenue levels of these respondents.

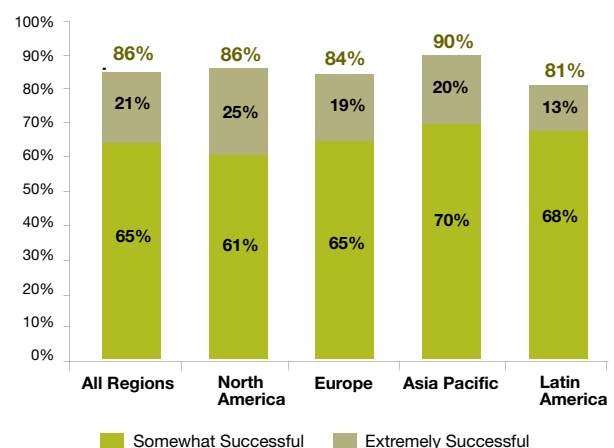
3PLs' Role in Logistics Success

In North America and Europe, 87% of user respondents agree that logistics represents a strategic, competitive advantage for their companies; 90% of respondents from Asia Pacific and 97% from Latin America agree.

This may be why: Each year users are asked to quantify the result of their 3PL relationships. They consistently report logistics cost reductions in the range of 12% to 15%, fixed logistics asset reductions in excess of 20%, and order cycles reduced by 20% to 30%. (Percentages tend to be a little higher for Asia Pacific and Latin America than for North America and Europe.) Also, an average of 76% of respondents to the 2008 survey agree that the ability to accommodate significant variations in demand with fewer fixed assets represents a key benefit of 3PL use, and 67% feel 3PLs help them increase service reliability.

It's not surprising, then, that so many users characterize their 3PL relationships as successful. As indicated in **Figure 4**, those rating their 3PL relationships as extremely or somewhat successful range from 81% in Latin America to 84% in Europe, 86% in North America, and 90% in Asia Pacific.

FIGURE 4: GENERALLY, CUSTOMERS REPORT SUCCESSFUL EXPERIENCES WITH LOGISTICS OUTSOURCING



The factors cited by 3PL users as contributing to this success can help others maximize the benefits they receive from 3PLs:

- **Strong relationships:** A substantial 74% of 3PL users see personal relationships at an operational level as contributing to their success in working with 3PLs. Just over half, 54%, agree that executive relationships between 3PLs and customers are also important, to help provide guidance and sponsorship. This need for executive support is also strongly advocated by participants in the ASE workshop, one of whom comments, "Everything goes well but also can fail because of relationships." The lesson: Client and provider must forge strong bonds up and down the organization, from the executive level through operations.
- **Strong contracts:** The second-most cited factor, at 60%, is a carefully designed and signed contract that features detailed descriptions of services and performance tracking. Although ASE participants agree with the importance of the contract, there was a concern that "over-use" of the contract on a daily basis can be counterproductive to building strong people and process relationships between 3PLs and their clients.

"Everything goes well but also can fail because of relationships."

- **Measurable and attained metrics:** Understandably, clearly measured improvements in service levels to customers (55%) and clearly measured cost reductions (48%) are also cited as contributing factors to successful 3PL relationships.

The takeaway: Setting, and then driving toward, a commonly held set of expectations is an essential element of success. Interestingly, the larger the revenue group, the more importance 3PL users place on a carefully designed and signed contract that supports innovative arrangements between a 3PL and a customer. Although this was not a specific area of inquiry within the 2008 survey, one plausible explanation is that higher-revenue companies may be more sensitive about carefully drafted contracts, as they may have more at stake financially and otherwise. Also, higher-revenue companies may have policies and procedures in place that require use of a more formal agreement or contract that includes a commensurate level of detail.

Results are slightly more mixed when respondents are asked whether "3PLs provide us with new and innovative ways to improve logistics effectiveness." A full 90% of those in Latin America agree, compared with 72% in North America, 61% in Asia Pacific, and 46% in Europe. Clearly, the impact of 3PLs on logistics effectiveness differs among the geographies studied. As indicated below, however, many of these same companies also indicate room for improvement with the service offerings that are provided.

Interesting findings within these results include:

- Almost two-thirds feel their use of 3PL services has had a positive impact on the services they provide to their own customers.
- The same fraction indicate their use of 3PLs has positively impacted business process efficiencies.
- Slightly less than half of 3PL users say their 3PLs provide them with visibility into key processes such as warehouse management, transportation management and supply chain management.
- About 40% are able to measure return on investment (ROI) from using a 3PL. While this finding may seem surprising considering the high marks 3PL users typically give their 3PL relationships, as discussed previously, it may be that some users are making more qualitative, rather than quantitative, judgments.

Of course, no relationship, or service provider, is perfect. Some 3PL users report areas in which their 3PLs could

improve. The most frequently occurring issues, as reported in **Figure 5**, are those one would naturally expect: unrealized service-level commitments, lack of continuous improvements and achievements in offerings, and cost reductions not realized. As in past surveys, insufficient IT capabilities are also an issue. This topic is discussed in greater detail below.

FIGURE 5: CUSTOMERS ALSO REPORT A NUMBER OF CONTINUING PROBLEMS WITH 3PL PROVIDERS

Outsourced Logistics Service	All Regions
Service level commitments not realized	51%
Lack of continuous, ongoing improvements and achievements in offerings	42
Information technology capabilities not sufficient	39
Cost reductions not realized	36
Lack of project management skills	35
Ineffective management of key performance indicators (KPIs)	34
Unsatisfactory transition during implementation stage	30
Errors caused by excessive manual steps within business processes	28
Lack of global capabilities	27
Lack of consultative/knowledge-based skills	25
Lack of business process integration across regions and supply chain services	20
Inability to form meaningful and trusting relationships	17
Poor post-merger integration of acquired companies	13
No problems	12

There is also room for improvement in 3PL management capabilities: Approximately one-third of 3PL users report problems with a lack of project management skills, ineffective management of key performance indicators and unsatisfactory transition during the implementation stage.

What 3PL Users Spend

Another area the survey probes each year is the total percentage of current logistics expenditures directed to outsourcing. For 2008, respondents in North America plan to devote 49%, in Europe it's 61%, Asia Pacific averages 57%, and Latin American respondents will allocate 48%. Within three to five years, 3PL users expect these proportions to grow: North America to 56%, Europe to 69%, Asia Pacific to 64%, and Latin America to 59%.

Interestingly, a look back at results from this question for the past few years reveals there does not appear to be any measurable growth from year to year in the percentages of overall logistics expenditures for 3PL services. Since total

logistics spending tends to increase year to year, however, the absolute amounts spent on outsourcing of logistics services can be expected to increase. These responses suggest an optimism or positive attitude toward outsourcing of logistics services, as total spend on outsourcing is expected to increase in all geographies studied.

What 3PL Users Outsource

The services 3PL users choose to outsource also don't change dramatically from year to year. As indicated in **Figure 6**, the most frequently outsourced activities in 2008 are domestic and international transportation, followed by warehousing, customs clearance and brokerage, and forwarding.

Some interesting observations from the results include:

- 3PL users in Europe and Asia Pacific report outsourcing more activities than users in North America.
- Freight bill audit and payment outsourcing continues to be more prevalent in North America than in the other regions.
- Latin American 3PL users are the most likely (22%) to outsource customer service.
- In line with the growing market-driven economies in Asia Pacific, outsourcing of forwarding and customs clearance is much higher there than for the other reporting geographies.

When outsourcing practices are considered by revenue category (high, medium-high, medium and low as outlined in **Figure 3, page 10**), it is apparent that higher-revenue companies are more likely to outsource individual logistics activities than lower-revenue companies. For example, high-revenue companies are most likely to outsource domestic transportation (91%), followed by medium-high (89%), medium (87%), and low (78%).

At the ASE workshop, the wisdom of outsourcing services not considered a core competency was a key theme. The general feeling is that when a 3PL is able to provide a better service and/or lower cost, the move to outsourcing should be considered. This is particularly true where a 3PL may have strong experience in a particular vertical market and a demonstrable track record in providing the desired services. As a caution to those who may be protective of the choice to "insource" key logistics and supply chain activities, one participant notes, "Even within your core competencies, you need to figure out if you are good at them or not."

A related ASE theme is the potential need for multiple 3PL relationships to foster on-going competitiveness and attain cost and service improvements. "You might want to play them out against each other or use them along regional boundaries," one group of participants suggests. "You may also segregate them based on different product categories," offers another. While this need to manage multiple 3PL relationships is quite valid, it also argues for the continued

FIGURE 6: CUSTOMERS CURRENTLY OUTSOURCE A WIDE RANGE OF LOGISTICS SERVICES

Outsourced Logistics Service	All Regions	North America	Europe	Asia Pacific	Latin America
Domestic transportation	85%	78%	92%	91%	70%
International transportation	81	69	89	89	70
Warehousing	72	70	73	75	62
Customs clearance and brokerage	65	66	57	81	56
Forwarding	52	48	44	70	45
Shipment consolidation	46	46	43	55	38
Reverse logistics (defective, repair, return)	38	31	42	41	34
Cross-docking	38	37	43	35	25
Transportation management (shipment planning and execution with one or more carriers)	37	39	38	36	25
Product labeling, packaging, assembly, kitting	36	29	42	37	35
Freight bill auditing and payment	30	54	20	21	14
Supply chain consultancy provided by 3PLs	17	21	15	14	14
Order entry, processing and fulfillment	15	12	14	21	17
Fleet management	13	9	15	14	15
LLP/4PL services	13	11	13	14	12
Customer service	12	11	10	12	22

growth of the LLP (lead logistics provider) and 4PL concepts to provide value-added professional/commercial assistance in managing these multiple relationships. Having multiple providers also provides surge capacity and is a risk mitigator, ensuring that you do not depend upon a single provider for a critical service.

Consistent with previous years' studies, customer-facing or more strategic logistics services are outsourced less frequently. This is continuing evidence that 3PL users are reluctant to outsource activities that may directly affect revenue or customer relationships.

The Role of Information Technology

Information technology continues to be a high priority for 3PL users. This is confirmed by survey results as well as by executives participating in the ASE workshop. IT capabilities also are seen as exceptionally critical to the integration of logistics services provided by 3PLs, as well as the ability to facilitate green supply chains and supply chain security.

FIGURE 7: THERE CONTINUE TO BE SIGNIFICANT OPPORTUNITIES FOR OUTSOURCING OF IT-BASED SERVICES

IT-Based Services Provided by 3PLs	All Regions		
	Current	Future	Total
Web-enabled communications (3PL-user)	65%	26%	91%
Visibility tools (e.g., tracking/tracing, event management)	58	33	91
Warehouse/distribution center mgt.	66	17	83
Transportation management (execution)	63	20	83
Barcode generation and scanning	50	30	80
RFID (Radio frequency identification and asset tracking)	13	61	74
Transportation management (planning)	44	29	73
Collaboration Tools (e.g., inventory levels, production schedules)	26	36	62
Customer order management	31	26	57
Supplier relationship management (e.g., procurement, payables)	26	30	56
Supply Chain Planning (e.g., forecasting, inventory planning, network optimization)	22	33	55
Internet-based transportation-logistics exchanges (auctioning)	21	34	55
Global trade management	20	31	51
Customer relationship management	21	28	49
Yard management	24	16	40

As seen in **Figure 7**, the IT services most commonly outsourced to 3PLs remain consistent with previous years' results. Both web-enabled communications and visibility tools are or will be outsourced by 91% of 3PL users, followed by warehouse/distribution center management and transportation management/execution (both at 83%). This year, bar code generation and scanning was added as a survey option, and 80% of respondents indicate use now or in the future.

RFID continues to be a focus of optimism, but not widespread adoption. This year, 13% of 3PL users currently report use of RFID from their 3PLs, while 61% indicate plans to do so in the future. Interestingly, we have seen similar current and future percentages for the past several years and have yet to see any increase in the extent to which users indicate current use of RFID.

Other technologies with lesser adoption so far, and whose future use outweighs current use, include collaboration tools, supplier relationship management, supply chain planning, Internet-based exchanges, and global trade management.

Despite the widespread adoption of some technologies, over the past seven years of this study a gulf has persisted between the importance respondents attach to 3PL IT capabilities and their satisfaction with those capabilities. This difference has been referred to as the "IT expectation/performance gap" (i.e., the "IT Gap"), and **Figure 8** shows the persistence of this gap over the past seven years.

Figure 9 sheds some light on the reasons behind this phenomenon. The most prominent IT-based service problems are the inability to provide sufficient order/shipment/inventory visibility and a lack of integration among internal 3PL systems. The need for more visibility is a high priority expressed by ASE participants.

Why Not Use 3PLs?

Reasons for not using 3PL services are as informative as the experiences of those who do. For example, considering logistics to be a core competency of the company is the most frequently cited reason for not using or considering use of 3PL services. This reason is named by 44% of non-users, in comparison with 37% from the survey conducted in 2007. Other highly rated reasons include: Cost reductions would not be realized, control over outsourced logistics functions would diminish, and logistics is too important to consider outsourcing.

**FIGURE 8: IT EXPECTATION/PERFORMANCE GAP 2002-2008
(ALL REGIONS)**

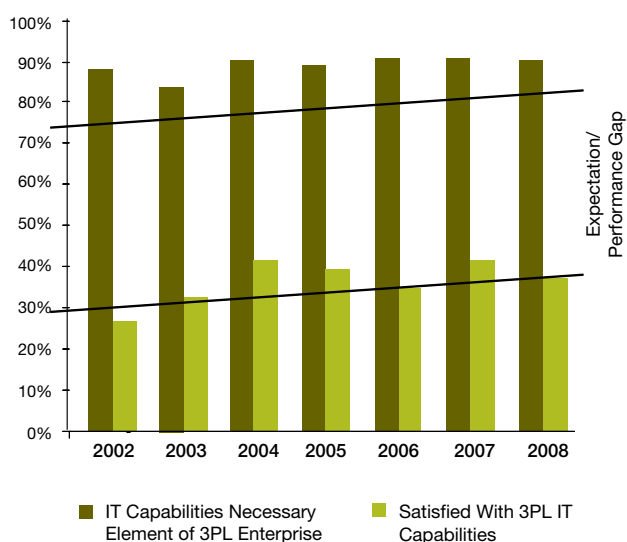


FIGURE 9: CUSTOMERS HAVE EXPERIENCED SPECIFIC PROBLEMS WITH 3PL IT-BASED SERVICES

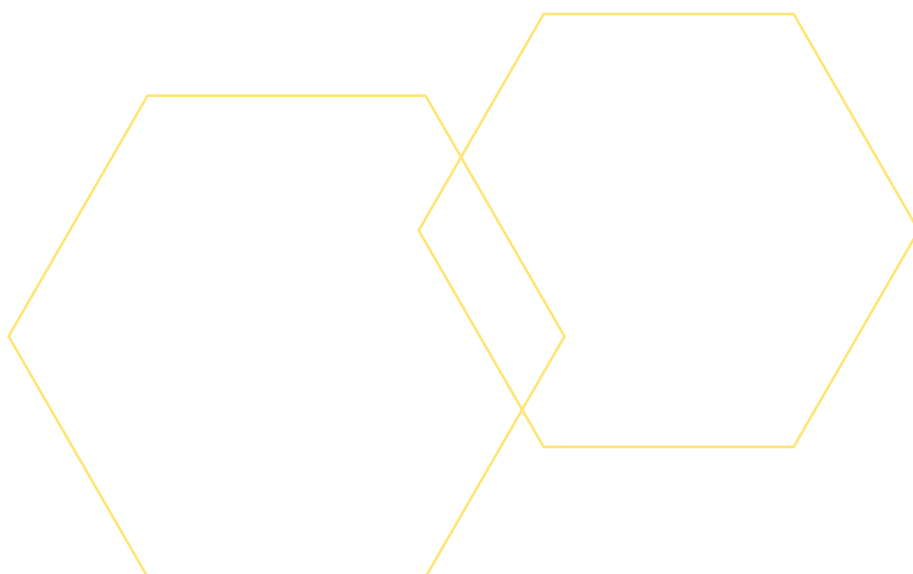
Problems Experienced with IT-Based Services	All Regions
Inability to provide sufficient order/shipment/inventory visibility	52%
Lack of integration among internal 3PL systems	52
Inability to correctly invoice for services provided	32
Inability to quickly provide quotes for special services	23
Time required to onboard customer	22
Inability to accept orders electronically	22
Other issue with technology capabilities	28

Also, it is frequently the case that non-users are quite familiar with 3PL providers and service offerings. Many current non-users have direct experience with 3PL services from previous work experiences, or may work with colleagues who have direct experience.

The Takeaways

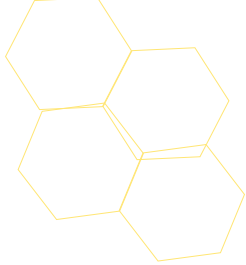
3PL users rate their relationships with their providers highly, citing 3PL use as a route to cost reductions, asset reductions, and shorter order cycles as well as a source of innovation. For many, customer service and business process efficiencies can be enhanced through relationships with 3PLs. But these benefits usually only happen as the result of focused initiatives to form strong relationships and through the use of detailed contracts that include clear expectations and metrics. Due diligence is also required to select providers who have demonstrated the ability to meet service-level commitments, invest in continuous improvements and achievements in offerings, and reduce costs — the most common problems users have with their 3PLs.

One area warranting particular scrutiny is a 3PL's planned technology investments; the gap between user IT expectations and 3PLs' ability to meet them persists. It's possible that because of all these issues, the percentage of budget devoted to outsourcing logistics, and the services outsourced, haven't changed much over the past several years. Perhaps more investment on the part of 3PLs, and more willingness from users to try additional 3PL services, is required to push the results of 3PL relationships to the next level.



Integrated Logistics

Managing Systems and Services for Best Results



An underlying premise to the theory of supply chain management is that, to be successful, supply chain processes and activities — both systems and services — must be integrated. For example, the order management system needs to talk to the warehouse management system, and warehouse activities in turn need to be coordinated with transportation. The greatest imperative, then, is to determine which organization or organizations within the supply chain will take responsibility for ensuring the effective integration of systems and services.

Historically, the needed integration of systems and services was accomplished by companies themselves as they purchased individual logistics services. Today, many 3PLs are capable of providing this systems and services integration for their customers. Often, this is referred to by 3PL marketers as “bundled,” “comprehensive,” or “one-stop shopping,” and usually involves integration of processes, technology, people, and services.

Overall, three-quarters of 3PL users surveyed prefer to look to their 3PLs for needed integration of systems and services, rather than trying to accomplish this internally. This is particularly noticeable for companies with mature, complex supply chains. The preference for 3PL integration is strongest in Asia Pacific and Latin America, where 87% and 85% of 3PL users expressed agreement, and was evident to a lesser extent in Europe (72%) and North America (69%). Interestingly, in last year’s study, Asia Pacific and Latin America were the areas most interested in collaborating with 3PLs. This suggests a possible relationship between 3PL users who prefer integrated services to be provided by their 3PLs, and those who also evidence the greatest interest in collaboration.

The petroleum (88%), high-tech and electronics (84%), and automotive (78%) sectors report the greatest use of integrated logistics services provided by 3PLs. Interestingly, these sectors also operate mature, complex supply chains. Also, of the 3PL users who ask their providers for integrated systems and services, just over half indicate they are able to quantify the value of those services over individually provided services.

Given the interest in integrated services, the study team decided to explore this question: What is the purpose and value of procuring services in an integrated manner, in contrast to the unbundled or standalone option? The results of the survey, focus interviews with industry experts and ASE workshop reveal valuable insights into when, and how, to make the most of integrated services. Most important, they affirm that integration of logistics systems and services is a core competency that must be accounted for in the relationships between a company and each of its 3PLs.

Benefits of Having 3PLs Provide Needed Integration

The appeal in looking to the 3PL/4PL sector for help with logistics integration lies most strongly in its ability to reduce internal burdens. As seen in **Figure 10**, three-quarters of survey respondents cite greater ease of managing outsourced logistics services, such as having one point of contact, as a benefit. Focus interview participant Danny Garst, Vice President of Supply Chain Management and Information Technology at electronics manufacturer Philips Consumer Electronics, notes that integrated logistics is a way to attain end-to-end accountability from a 3PL. Other popular reasons include reduced management time (69%) and the ability for the company to focus on core business (67%).



FIGURE 10: BENEFITS EXPERIENCED FROM THE USE OF “INTEGRATED” LOGISTICS SERVICES

Benefits	All Regions
Greater ease of managing outsourced logistics services (e.g., one point of contact)	75%
Reduced management time and effort	69
Enabled our company to focus more on our core business	67
Overall logistics efficiency/lower cost (e.g., volume discounts)	56
Overall logistics effectiveness/improved service	56
Reduction in the number of logistics services providers	51
Enhanced shipment visibility	39
Quicker response	37
Optimized capacity utilization	34
Extended global reach (network)	31
Custom-built solutions	24
Capability to work on more complex solutions	24
Risk-sharing with integrated logistics services provider	23
Inventory reduction	22
Early problem detection	22
Proactive IT approach	18

The importance of cost and services are also clearly on the minds of 3PL users; more than half state that efficiency of overall logistics/lower costs (such as volume discounts) and overall logistics effectiveness and improved service were important benefits. Just over half say outsourcing logistics to an integrated services provider allows a reduction in the number of logistics service providers; this is consistent with the 47% of 3PL users who indicate they are moving to rationalize or reduce the number of 3PLs they use. Another benefit, mentioned by both focus interview experts and ASE participants, is the ability of 3PLs to better handle variances within the business.

ASE participants also note the ability to exploit a 3PL’s international experience coupled with its integration capabilities to more easily move into new markets. “It’s a particular benefit to midsized companies (shippers) that are involved in global supply chains and don’t have the personnel and expertise that are needed,” adds Rosalyn Wilson, Supply Chain Consultant and co-author of the book *Securing Global Transportation Networks*. But this requires a tradeoff between cost and experience and the level of risk the company would like to take.

Some Limitations to Consider

Turning to the 3PL sector for needed integration of logistics systems and services is certainly not appropriate for every company, however. Flexibility was the most-selected reason respondents had for preferring individually provided services

FIGURE 11: WHY RESPONDENTS DO NOT PREFER “INTEGRATED” LOGISTICS SERVICES OVER “INDIVIDUALLY PROVIDED” LOGISTICS SERVICES

Reason	All Regions
We experience greater overall flexibility	61%
We provide our own integration of logistics services	51
Desire not to be dependent on any external party	44
Prefer not to integrate operations too much with logistics suppliers to stay independent	42
Concerns with service quality available from integrated logistics service suppliers	36
We only outsource a single logistics service	36
More expensive to use integrated logistics services provider	31
Integration of logistics services is one of our core competencies	26
Our technology systems are more flexible and more user-friendly	15
Data/message standardization problems	9

over integrated services, as seen in **Figure 11**. Just over half of those 3PL users surveyed that do not prefer “integrated” logistics services actually provide their own integration of logistics services, and 44% expressed a desire not to be dependent upon any external party. This was true no matter the size of the company’s revenues, although the preference not to integrate too much with logistics suppliers in order to stay independent tends to become more of a priority among larger organizations.

Loss of control is also a big issue for some companies. They fear losing internal competencies, as well as visibility into their own supply chains. “It’s hard to check on the 3PL’s performance,” says Vincent van Blitterswijk, Logistics Consultant for the Dutch Shippers’ Council (EVO). “If only one integrator is used, it can be hard to compare performance with others.” The lack of visibility to areas for improvement can damage trust, and bundled solutions can hide cost, notes one focus interview participant.

ASE participants express doubt regarding the ability of some 3PLs to be equally competent at all the services offered plus integration of those systems and services. One asks, “Is sustaining quality and cost savings with an integrated provider more challenging than with a 3PL that does not provide integrated services?” Managing the change required to pull off outsourcing of integration was another difficulty; companies must not only switch gears, but also develop competency in managing an integrated logistics provider.

What Services are Integrated?

To date, the same services that tend to be outsourced individually are also those most likely to be outsourced in an integrated manner (**Figure 12**): domestic road transportation, warehousing, shipment consolidation, customs clearance and brokerage, and international road transportation. Value-added services, order entry/processing/fulfillment, and supply chain planning services are less often outsourced in an integrated way, or at all. One ASE workshop participant notes that “commodity” activities seem the most likely to be outsourced in an integrated manner.

Larger firms are slightly more likely to outsource supply chain planning services, cross-docking, and domestic transportation through an integrated services arrangement, and less likely to outsource integrated warehousing services.

As indicated in **Figure 13**, respondents use an average of 3.4 integrated services providers, with slightly more used by respondents in Europe and slightly fewer for Asia Pacific. Latin American respondents report an average 2.3 providers. Larger companies typically use more providers than smaller ones, except in Latin America.

Making Integrated Services Work

Entrusting the integration of logistics services to a 3PL requires commitment and preparation on both sides of the deal. There are essential issues that must be worked out, including who pays for the integration, what metrics will measure and define success, and the availability and role of IT. One of the most sensitive areas expressed by users is how to extract the best value while avoiding excessive dependency on the 3PL.

Structuring the Deal: Focus interview and ASE participants agree that a maturity model is necessary to help guide both parties to an integrated services contract. Focus interview experts recommend a “crawl-walk-run” approach, starting with a specific service or piece of the business and evolving from there. “After take-over the 3PL must be able to manage the same scope with the same quality,” cautions Jörg Hess, Head of Logistics for telecom provider Swisscom. “In the next stage efficiency and cost reduction must be achieved by the service provider. In the third stage the business can be expanded to new areas.”

One of the focus interview participants offers this very insightful remark: “Very few companies have the ability to evolve and integrate logistics services all by themselves... these same companies have difficulty acting as their own 4PL/consultant to conduct their activities in an integrated manner using a combination of their own capabilities and external assets.”

Relationships are critical as well, adds Philips’ Garst. “The key to successful continuity is the people who are involved in the relationship. You need to have people who can keep the relationship moving in the right direction.” Internally, a strong and highly skilled project team is required to set up the outsourcing of integrated logistics, ASE participants concur. Once stabilized, an operational team is necessary to monitor and control performance and adapt as required.

FIGURE 12: WHICH OF THE FOLLOWING SERVICES ARE PROVIDED BY YOUR 3PL IN AN “INTEGRATED” MANNER?

Integrated Logistics Services Provided by 3PL	All Regions	North America	Europe	Asia Pacific	Latin America
Domestic road transportation	78%	76%	84%	77%	64%
Warehousing	74	67	80	73	74
Shipment consolidation	66	64	61	76	60
Customs clearance and brokerage	63	62	58	74	55
International road transportation	60	54	73	47	66
Air transportation	57	55	55	68	47
Ocean carriage	51	51	48	57	45
Cross-docking	50	49	57	47	37
Value-added services (e.g., packaging, kitting, labeling)	48	40	53	52	45
Express	47	41	53	49	38
Order entry, processing, and fulfillment	20	20	14	23	29
Supply chain planning services	17	20	17	14	16

FIGURE 13: AVERAGE NUMBER OF INTEGRATED LOGISTICS SERVICE PROVIDERS USED BY 3PL USERS

Revenue Category		All Regions	North America	Europe	Asia Pacific	Latin America
All Revenue Categories		3.4	3.4	3.9	3.3	2.3
High	US \$25 billion or more (€15 billion or more)	5.2	4.5	5.5	6.0	2.6
Medium-High	US \$1 billion – less than US \$25 billion (€700 million – less than €15 billion)	3.5	3.6	4.0	3.1	1.6
Medium	US \$500 million – less than US \$1 billion (€350 million – less than €700 million)	3.0	2.3	4.4	2.6	2.7
Low	Less than US\$500 million (less than €350 million)	2.7	3.3	2.3	3.0	2.2

Who Pays?: Systems and services integration requires considerable front-end investment, and the assignment of these costs may be somewhat controversial. “Although the expectation is that costs should be split, practical experience suggests the costs finally have to be carried by the customer,” says one focus interview participant. EVO’s van Blitterswijk notes 3PLs must be assured their initial outlay is protected with a long contract or other formula for compensation; development of a business case is useful to test the benefits to each party. Activity-based costing, open-book, and transaction cost calculations borrowed from partner models are useful for such relationships, adds Swisscom’s Hess. Clearly, integration of logistics systems and services is a core competency that companies must be willing to pay for, whether internal or outsourced.

The Role of IT: Much of both systems and services integration is driven by information technology (IT), and many 3PL users rely on 3PLs to furnish this aspect of integrated logistics. More than half (56%) report lacking internal resources to tackle integration of logistics services on their own. As one ASE participant notes, technology is critical for fostering collaboration, visibility, and a demand-driven supply chain. The IT expectation/performance gap noted in the chapter, “Current State of the 3PL Market,” then, is a key concern for potential purchasers of integrated logistics services. Assessment of a 3PL’s technology infrastructure and its ability to customize those solutions to suit the processes and needs of the customer is a critical step in due diligence.

Avoiding Dependency

Integration is “sticky;” the necessary technical, process, and people connections between customer and 3PL sometimes make it difficult for either or both parties to extract themselves from such an arrangement. Thus, some 3PL users fear over-dependence on a particular 3PL. One concern is that the locked-in nature of the relationship can lead to 3PL complacency, ultimately decreasing service quality and cost savings. Similar fears surfaced in our examination of collaboration in the 2007 edition of this report.

Of those who prefer integrated services, 68% agree that their use of an integrated services provider has created a greater dependency on that provider than if they had purchased services individually. This is particularly true for higher-revenue organizations, which perhaps sport more complex supply chains and 3PL relationships.

Risk of dependency, then, must be outweighed by results, suggests Philips’ Garst. The goal is to discover strategies to reap the rewards while minimizing dependency. Strategies from focus interviews and ASE participants include:

- Ongoing customer measurement of 3PL performance and meaningful dialogue between customers and 3PLs to identify ways to improve service and enhance value. Transparency of cost and pricing for services facilitates a more open dialogue between 3PL and customer, allowing both parties to see issues and opportunities more clearly.



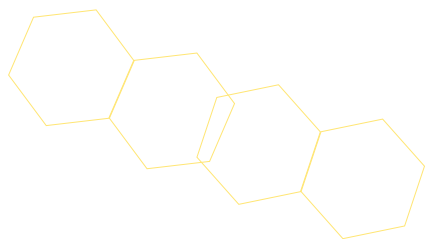
- Contracting with a single 3PL when appropriate, but also considering the potential benefits of working with multiple 3PLs. According to Swisscom's Hess, the "dual-supplier concept" provides opportunities for potential benchmarking against each other and the larger market.
- Judicious use of rebidding 3PL business to address evolving business needs, while ensuring that contract lengths are sufficient to allow for effective operating relationships between 3PLs and customers. Professor Wolfgang Stölze, Chair of Logistics Management at Switzerland's University of St. Gallen, suggests the use of reduced-length contracts to avoid complacency.
- Retaining internal expertise needed to effectively manage relationships with 3PLs, and designing 3PL-customer relationships that take advantage of the IT competencies of both organizations.

Integrated Logistics: The Takeaways

Three-quarters of 3PL users prefer to rely upon their 3PL providers for systems and services integration, particularly those with more mature, complex supply chains. Easing the burden of internal management, gaining efficiencies, lowering costs, and improving overall effectiveness are highly valued benefits. But asking 3PLs to provide needed integration of systems and services may not be a fit for every situation. Loss of control, visibility, internal competency, and perhaps most of all, fear of dependency make potential users hesitate. These factors also may help to explain why some customers limit outsourcing contracts to more routine, commoditized services, rather than to ask for more innovative, strategic services. 3PL users should take steps to avoid excessive dependency and structure contracts that balance the costs and risks. Certainly, careful consideration is a must when assigning responsibility for the integration of systems and services.

Green Supply Chain

It's Not Whether to Act, it's How



Supply chains are going green. The pressure to operate supply chains in a more earth-friendly way — and the importance of being able to tout those accomplishments to customers and trading partners — is growing by the day. Early adopters such as New Hampshire dairy manufacturer Stonyfield Farm are grabbing headlines and raising expectations with a long list of green accomplishments. Clearly, survey respondents are feeling the heat: A substantial 86% agree that a green supply chain is somewhat or very important today — particularly large companies and those in Latin America. Respondents agree almost unanimously (98%) that green supply chain initiatives are somewhat or very important to their companies' futures. (**Figure 14**)

But uncertainty abounds about what “green” really means, how to measure it, how to attain it, and particularly, whether green practices will result in extra costs or additional savings. Just over half of 3PL users responding believe green supply chain initiatives will deliver a positive return on investment, while 35% are undecided and 14% believe ROI will not be positive. One approach that may help companies find their way is to think in terms of environmental sustainability, or processes that support themselves over time, suggests John Davies, Director of Research, Greener World Media.

Right now, there are few mandates pushing companies to move to greener practices. But ASE workshop and focus interview participants feel strongly that doing nothing is not an option, because eventually a company that does not act will be penalized in the marketplace or by government regulations, while those who move aggressively may enjoy a competitive advantage. Many are wondering: How do we start, and how can 3PLs help?

Building a Green Action Plan

Three steps are required to begin to act on green, according to ASE workshop participants:

- Become educated
- Measure the environmental impact of a company's supply chain and identify change levers
- Embark on business case-supported initiatives

Education: Most companies appear to be at the fact-finding stage. Tasks include identifying reliable sources of information, learning to employ green metrics such as carbon footprint — the carbon dioxide emitted across the supply chain for a single unit of product — and gleaning as much as possible about others' experiences, including any return on investment. Along the way, companies must separate green hype from fact.

Experts warn that green is not always intuitive, and “greenwashing” is rampant. What appears to be a greener practice may in reality be a more resource-intensive one. A study, *Comparative Energy and Greenhouse Gas Emissions of New Zealand's and the UK's Dairy Industry*, conducted by Professor Caroline Saunders at New Zealand's Lincoln University, found, for example, that the total greenhouse emissions released in the production and transport of dairy and lamb shipped to Britain from New Zealand are lower than the emissions generated by the production of dairy and lamb in Britain — even with the carbon output of transportation thrown in. Learning to use green metrics will help identify which process improvements truly deliver on goals.

ASE participants agree that a green maturity model would be invaluable in helping to guide companies through their

FIGURE 14: HOW IMPORTANT ARE “GREEN” SUPPLY CHAIN INITIATIVES TO YOUR COMPANY?

Level of Importance	All Regions		North America		Europe		Asia Pacific		Latin America	
	Today	In The Future	Today	In The Future	Today	In The Future	Today	In The Future	Today	In The Future
Very Important	34%	73%	31%	66%	29%	74%	36%	79%	51%	77%
Somewhat Important	52	25	55	32	55	24	52	19	36	18
Not Important	14	2	14	2	16	2	12	2	13	5

green initiatives. Another tool is the ISO 14000 family of standards, which provide organizations with a comprehensive framework for environment management, including tools to assess their environmental impact, improve their environmental performance, and implement processes for setting and achieving performance improvement targets.

Self-Measurement and Change Levers: Armed with education, companies can set out to measure their own operations and understand what’s driving their carbon footprints, and then act on what they learn. Setting a bar encourages a more concerted effort to clear it.

One question raised by ASE participants is: What are the practical, defining limits of one’s supply chain, and therefore of one’s carbon footprint? Shifting processes upstream does not exclude a company from responsibility for actions made on its behalf. ASE participants suggest that companies start the measurement process with internal operations and their tier one suppliers.

An important step in the self-discovery process is in sharing the results. “We are in the early days of learning and it’s important for companies to be open and honest about what they are doing currently, no matter what it is,” says Nigel

Topping, Head of the Supply Chain Project for the Carbon Disclosure Project, a non-profit organization focused on the implications of climate change for corporations and their shareholders.

Building a Business Case: Each green project must be based on a sound business case including return on investment, expected costs and savings, and intangibles such as the impact on corporate image and relationship to corporate citizenship goals. One ASE participant dubs this calculation the “carbon ROI” — the amount of carbon emission reduction per euro/dollar spent.

Some points to consider in creating a business case, according to ASE participants:

- Given a portfolio of possible initiatives, aim to leverage the savings generated from short-term, tactical efforts to fund longer-term, strategic initiatives.
- Each project should be measured against a baseline of taking no action.
- While there is a high correlation between energy cost savings and reducing greenhouse emissions, certain green supply chain initiatives may help the environ-



Early adopters are finding that green projects can generate savings, and even better, produce revenues while reducing the impact on the environment.

ment but may cost more than the calculated economic benefits. Realistically, companies should expect perhaps 80% of initiatives to create cost savings and 20% to result in a cost increase, but should aim for a net overall savings.

- Though more difficult to quantify, calculations should include the marketing benefits available from green projects. Awards are emerging to recognize environmental excellence, such as The Green Cross Millennium Award for Corporate Environmental Leadership, from Global Green USA and Green Cross International. Public perception of green can be particularly valuable and influential for non-differentiated products, says Matthew Payne, Manager at the EPA SmartWay Project. As one ASE participant suggests, a locally grown cucumber may be perceived as more earth-friendly because it travels less distance, or organic cotton might be seen as “greener” than conventionally grown crops.

Companies that outsource to 3PLs must factor in the role of these partners in attaining green goals. As seen in **Figure 15**, it’s far from clear whether the 3PL or the customer should foot the bill in cases where the costs of achieving green goals outstrip the financial benefits. Overall sentiment says green supply chain initiatives should not involve any (net) additional costs, but when they do, the most equitable approach is for the two parties to split them. ASE participants comment that as green practices become more widespread, 3PLs may be expected to provide basic green services at no extra cost, but special initiatives would likely be split equitably between customer and 3PL.

FIGURE 15: IF COST OF ACHIEVING “GREEN” EXCEEDS BENEFITS, WHO SHOULD BE RESPONSIBLE FOR ADDITIONAL COST?

Respondent Opinion as to Who Should be Responsible	Overall
The 3PL should pay the additional cost	4%
The customer should pay the additional cost	12
The 3PL and the customer should share the additional cost	36
Implementing a green supply chain should never involve extra cost	30
Not sure	18

Karl Feilder, CEO of carbon consultancy The Neutral Group, contends that green or carbon-reducing measures always cover their cost. “Often, it is a question of payback period,” Feilder says. “The question should be raised: Who should accrue the benefits?”

Though green for green’s sake attracts public admiration, most companies will embark on green projects that deliver on both financial and earth-saving fronts. At Wal-Mart, for instance, projects are now viewed through the lens of sustainability, which means the initiatives must be acceptable financially, environmentally, and socially.

The biggest challenge and opportunity, Green World Media’s Davies says, is in determining how to channel green initiatives into driving more revenue.

Joint Customer-3PL Initiatives: A Green Solutions Catalog

As green becomes a greater factor in operating a supply chain and managing logistics services, companies outsourcing these functions will inevitably rely on 3PLs to help satisfy green goals. But respondents report uncertainty about how much to weigh green capabilities when choosing 3PL partners, perhaps due to fears that a commitment to green may be more costly, at least in the short term. The effect of supply chain operations on the environment is a factor in selecting a 3PL for 46% of respondents, and is especially important for high-revenue companies. North American companies are the least likely to rate this as a factor (39%).

Solutions to Consider:

Improve Transportation Efficiency

More than three-quarters of 3PL users rate consolidation, routing, and mode selection as the top services 3PLs can contribute to green strategies (**Figure 16**). Because a 3PL may manage transportation for multiple shippers, it is well positioned to leverage transportation optimization opportunities. However, just 31% indicate that their 3PLs currently offer these services. Just under half feel 3PLs can help by improving transportation and/or dock scheduling to reduce the carbon emissions associated with demurrage. IT, especially transportation management systems, has a key role to play in helping optimize transportation.

FIGURE 16: IMPORTANT WAYS A 3PL COULD HELP CUSTOMERS WITH GREEN SUPPLY CHAIN INITIATIVES

Solution Area	Overall	
	Most Important	My 3PL Currently Performs
Improving transportation efficiency, and thereby reducing carbon emissions, through effective shipment consolidation, routing, and mode selection	77%	31%
Reducing the use of non-recyclable packaging materials	53	15
Managing energy efficient distribution centers	50	15
Improving transportation and/or dock scheduling to reduce the carbon emissions associated with demurrage	49	22
Providing consultative advice with regards to implementing a green supply chain	48	8
Using alternative fuels, such as liquefied petroleum gas or compressed natural gas, to reduce greenhouse gas emissions	47	8
Facilitating reverse logistics processes to recover otherwise wasted materials	46	19
Providing effective inventory management that reduces the need for small-sized expedited shipments	43	15
Use of hybrid electric vehicles (internal combustion engine / electric motor powered by a rechargeable battery)	40	8

Shift Modes

Both green and cost concerns are prompting interest in mode shifts, such as from air to ocean, or over-the-road to intermodal and rail transportation. Just over half of 3PL users agree that green goals may lead them to change the transportation modes they use. According to an EPA fact sheet, *A Glance at Clean Freight Strategies: Shipping Strategies*, for distances over 1,000 miles, rail intermodal can cut fuel use and greenhouse gas emissions by 65%, compared with truck-only moves. However, capacity, visibility, and delivery times can be issues with rail.

Retrain Drivers

Instructing drivers on fuel-saving practices such as no idling, reducing speed, and avoiding heavy braking and accelerating helps lower both fuel costs and emissions. Implementing incentive programs and using fuel-monitoring devices are effective in reinforcing these new habits. One 3PL reports that these steps helped increase its fuel efficiency by 10%.

Improve Equipment

Options available to increase vehicle fuel efficiency range from small to very large. Many options can be pursued now. Teardrop-shaped trailers have added 10% cargo volume for some carriers while delivering a 10% increase in fuel efficiency. Double-deck trailer bulkhead deflectors can result in up to 3% more fuel efficiency. The US EPA's SmartWay program, a public-private partnership to reduce transportation-related emissions, includes specifications for equipment that significantly reduces fuel use and greenhouse gases. Some shippers now require their cargo to be transported by SmartWay-certified carriers.

Change Packaging

Packaging changes can lower raw material use, reduce size and weight for more efficient transportation, and allow recycling, among other benefits. "You might have a higher up-front cost for bio-friendly packaging, but the recycling revenue created by that material can oftentimes lead to lower overall costs," says Matt Kistler, Senior Vice President of Sustainability at Wal-Mart. "Incremental cost in one area can be mitigated in another."

Sam's Club is adopting a new, streamlined milk package that allows 50% more storage per cubic foot, replaces crates with recyclable materials, and reduces store deliveries from four to five per week to two. Fifty-three percent of respondents say it's important for 3PLs to help reduce the use of non-recyclable packaging materials. For otherwise wasted materials, 46% of respondents see value in 3PLs facilitating reverse logistics processes.

Optimize the Network

Nearly two-thirds (62%) of respondents agree that their concern for the environment and green supply chain may cause them to explore ways to reduce their overall need for transportation, such as redesigning the distribution network to reduce average length of haul. A distribution network can also be designed to incorporate pool points and break bulk centers, thereby improving load utilization and reducing the carbon footprint. "Do we need 50 warehouses?" asks Feilder of The Neutral Group. "Often the customer realizes that his supply chain is suboptimal and overly confused. Carbon abatement can provide an excellent catalyst for operating cost reduction and margin improvement."

ASE participants posit that the concept of economic order quantity (EOQ) may need to be modified to consider green implications. A “green EOQ” would be useful for companies considering changes to their supply networks. Logically, this calculation may skew toward less frequent deliveries and holding more inventory to minimize the greenhouse emissions associated with more frequent, smaller deliveries. But the opposite could be true in some instances where excess inventory means there was too much production to begin with, which in itself could result in a higher carbon footprint.

Move toward Greener Buildings

Half of the respondents feel managing energy-efficient distribution centers is an important way for 3PLs to help customers, though just 15% say their 3PLs currently do so. There are myriad ways, from the small to the radical, to make facilities more efficient. Using solar or wind power to offset or meet electricity consumption, replacing air conditioning with massive fans, and placing occupancy sensors on lights reduce costs and carbon output. The US Green Building Council’s Leadership in Energy and Environmental Design (LEED) Green Building Rating System promotes a whole-building approach to sustainability by recognizing performance in five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

3PL users want to work with their 3PLs on these projects; nearly half (48%) of 3PL users believe 3PLs could provide consultative advice on green issues. Currently, just 8% say their 3PLs actually provide such counseling, revealing an opportunity for these providers to step up their services.

A theme found consistently across focus interviews and the ASE workshop is that the time to start is now. Don’t wait for more fuel-efficient vehicles, customer requests, or mandates. Take advantage of low-hanging fruit to kick-start green thinking, and evangelize the results of early wins internally and with partners. A measured, but purposeful, approach is best.

“The debate is over as to whether climate change is real and we humans are causing it,” says Neutral Group’s Feilder. “We are now moving into a new phase — where early adopters can gain significant market advantage. There will be some surprising winners and losers.”

Green Supply Chain: The Takeaways

Most 3PL users feel that a green supply chain is important and growing more so. Survey responses regarding ROI, green as a factor in selecting 3PLs, and changing transportation modes show some optimism for taking action and reaping benefits (around 50% agreeing), but also indicate some hesitancy, with the rest of the population split between “no” or “not sure.” Focus interview and ASE participants feel strongly, though, that doing nothing is not an option. They see transforming to a green supply chain as requiring three steps: becoming educated, measuring current company conditions and identifying change levers, and embarking on business case-supported initiatives.

As green becomes a factor in operating a supply chain, those outsourcing these functions will inevitably rely on 3PLs to help satisfy green goals. The options for greening of supply chain operations range from small process changes to substantial capital investments. Generally, 3PL users would prefer that green supply chain management not incur extra costs, but feel those costs should be shared if they arise. Early adopters are finding that green projects can generate savings, and even better, produce revenues while reducing the impact on the environment. The bottom line on green? Do something, now.

Laundry Detergent Shrinks in Size and Grows in Supply Chain Sustainability

The days of full-size laundry detergent are numbered. As of May, 2008, Wal-Mart sells only concentrated liquid laundry detergent, a project that triggered the transformation of the entire liquid laundry detergent category across the US retail industry, according to a Wal-Mart Fact Sheet, *Wal-Mart Concentrated Liquid Laundry Detergent*, updated May, 2008.

Both Wal-Mart and Procter & Gamble (P&G) regard the move as key to their commitment to sustainability, according to public documents. As reported by P&G, 2X concentrated detergents produce many “green” benefits, including reducing greenhouse gases and CO₂ emissions, saving water, reducing packaging, and lowering supply chain and transportation expenses. Each year, P&G projects they’ll use:

- 50,000 fewer cases of product
- 1,000,000 fewer unit loads,
- 60,000 fewer trucks
- Over 40% less diesel fuel (over 5 million gallons of diesel fuel per year)
- Supply chain activities reduced across DCs and stores
- 1,200,000 reduced labor hours
- 17,500 reduced DC pallet storage slots/positions



Supply Chain Security

Concerns Rise as Regulations, Risks Mount

Theft dominates 3PL users' thinking when it comes to supply chain security. Companies of all sizes, regions, and industries rank theft of material goods as their top security concern by a wide margin, according to survey respondents. They rate physical security for goods as among the most effective security measures 3PLs can provide, and the one their 3PLs are most able to deliver. Perhaps because of this, many are relatively satisfied with their 3PLs' level of security.

But there is far more to supply chain security than preventing theft. A growing cadre of government regulations would suggest that terrorism is a significant threat to supply chains, while companies themselves appear more likely to look at the damaging effects of recent port strikes, natural disasters, border closings, or food contamination scares as disruptions they're keen to avoid. In fact, in the area of global trade, some companies appear to be more concerned with regulatory compliance and penalties than with the underlying security issue.

The need for security varies by industry and material — though even a commodity such as corn, which would seem to need little protection from, say, theft or tampering, is at growing risk as its market value rises and its potential as a vehicle for terrorist acts becomes evident. Awareness of vulnerability is growing, particularly as supply chains become longer and more complex. However, there is widespread hesitance to spend on what is perceived as a cost center with little potential for payback. Fortunately, supply chain innovators are demonstrating that there are collateral

benefits to supply chain security projects that contribute to a solid business case.

What 3PL Users Think

3PL Security Level: As stated, many 3PL users are relatively satisfied with the security provided by their 3PLs — 16% rate them as very secure, followed by 60% calling their 3PLs secure and 22% somewhat secure (**Figure 17**). 3PLs are rated very secure or secure by 81% of the life sciences and pharmaceutical industry respondents, perhaps due to regulations such as the e-pedigree laws in the US and EU (see glossary, page 31). Just 66% of those in the manufacturing industry rate their 3PLs as very secure or secure, which may result from the less evolved state of security regulations in that vertical.

The top five industries in which 3PLs are most in need of enhanced security, rated as somewhat secure by respondents, are manufacturing (32%), telecommunications (27%), chemicals (26%), retail (21%), and high tech (20%).

Top Security Worries: Theft dominates 3PL users' supply chain security concerns — 74% select it as important in the survey. A third of respondents cite natural disasters, followed closely by tampering with material goods (**Figure 18**). Their fears may well be warranted. In two of many recent examples, falsified products were introduced somewhere along the supply chain: In one case, 2GB branded USB sticks were replaced with 1GB but appeared as 2GB to users. Another case involved falsified Italian airplane parts that were later rumored to have contributed to accidents.

FIGURE 17: HOW WOULD YOU RATE THE LEVEL OF SECURITY PROVIDED BY YOUR 3PL?

Level of Security	All regions	Automotive	Chemical	Consumer Products	Food & Beverage	High Tech	Manufacturing	Life Sciences	Retail	Telco
Very secure	16%	16%	18%	23%	16%	19%	13%	10%	15%	23%
Secure	60	63	54	55	62	60	53	71	64	50
Somewhat secure	22	19	26	21	19	20	32	18	21	27
Not secure	2	2	2	1	3	1	2	1	0	0



Supply chain innovators are demonstrating that there are collateral benefits to supply chain security projects.

FIGURE 18: IMPORTANT SUPPLY CHAIN SECURITY CONCERNS FOR YOUR COMPANY

Security Concerns	All Regions	North America	Europe	Asia Pacific	Latin America
Theft of material goods	74%	67%	78%	79%	74%
Natural disaster disrupting supply chain activities	33	39	27	29	37
Tampering with material goods	32	36	20	41	41
Theft of intellectual capital	26	24	27	32	19
Other materials smuggled with your shipments	19	21	19	15	23
Terrorist attack disrupting supply chain activities	17	24	13	16	12
Vandalism of supply chain assets	12	10	14	9	24
Spoilage of food products creating a health risk	11	10	11	8	17

"Information reduces the impact of a security breach."

FIGURE 19: MOST EFFECTIVE MEANS FOR 3PLS TO MAINTAIN OR ENHANCE SUPPLY CHAIN SECURITY

Means for Maintaining or Enhancing Supply Chain Security	All Regions		
	Most Important	My 3PL Currently Performs	GAP
Provide physical security for materials goods (e.g., locks, trailer seals, fences, cameras, etc.)	57%	49%	8%
Develop security procedures in collaboration with the customer	57	42	15
Provide proactive reports and alerts when shipments deviate from planned route or schedule	54	27	27
Scan shipments at key points (origin, destination, intermediate point) to facilitate in-transit visibility	50	40	10
Possess a security-related certification, such as AEO or C-TPAT	48	36	12
Provide alternative routing for shipments in response to supply chain disruptions	47	30	17
Provide information security (e.g., secure electronic documents exchanged by trading partners)	42	25	17
Perform physical inspection of goods at key points within the supply chain	41	30	11
Provide GPS-enabled tracking of shipments to enhance in-transit visibility	40	23	17
Monitor environmental conditions associated with shipments (e.g., temperature, humidity, etc.)	34	20	14
Provide RFID tracking of shipments to enhance in-transit visibility	32	9	23
Perform x-ray or other non-intrusive inspection of goods at key points within the supply chain	20	8	12

Specific security concerns vary by industry. Food and beverage companies rate spoilage of food products creating a health risk (58%) as their number two concern, while tampering is the second biggest threat (45%) for life sciences and pharmaceutical companies. 3PL users with medium-high and high revenues are much more troubled by theft of intellectual capital and terrorist attacks than were small and midsize companies.

Compliance: Complying with a rising tide of government anti-terror regulations is becoming increasingly onerous for companies. For example, this year the US Department of Homeland Security has proposed a new security screening rule, commonly called 10+2, that will require shippers and carriers to capture 12 more data elements for shipments being imported into the US. 10+2 will require importers to provide significantly more data within a 24-hour shipment window, but few importers and carriers have systems or processes that can capture and disseminate this information, according to C. Dwight Klappich, Research Vice President for ERP and Supply Chain Management at Gartner, in a Gartner research note, *U.S. Customs 10 + 2 Legislation Will Drive Further IT Spending for Importers*.

Many companies perceive the required investment as greatly exceeding the risk or the payback. Focus interview and ASE participants express doubts about the ability to enact measures such as scanning every container, verifying worker identity daily, researching every delivery address, or even determining how to report a security breach to authorities. Fear of violating mandates — and thus incurring penalties and delaying shipments — appears to loom more largely to companies than the terror acts they're intended to dissuade.

Focus interview participant Dr. Thorsten Blecker, Professor at the Hamburg University of Technology, points to one automotive industry executive who observes that mounting US security rules could effectively eliminate just-in-time deliveries into the US, a staggering concept.

Reviews are mixed regarding the adoption of the government- and industry-based certification programs designed to make supply chains more secure. Focus interview participants see some success in the US's C-TPAT program, which is currently under review to determine certification criteria for expansion to 3PLs. Adoption of the international AEO designation, however, has been disappointing. "EVO thinks that is due to the fact that a lot of rules and procedures are not yet 100% clear," says Danielle Gevers Deynoot, Security Advisor for EVO, the Dutch Shippers' Council. "Shippers are not sure that once they have AEO status, it then would be acknowledged by the USA," since C-TPAT and AEO are not fully aligned. Lack of perceived benefits and country-to-country differences in AEO also hamper enthusiasm.

But even fully compliant is not the same as fully secure. "C-TPAT and AEO can be clearly characterized as counterterrorism programs," notes Dr. Wolfgang Partsch, Senior Vice President of Global Supply Chain Services, Europe, for Tompkins International. "To be very frank: These programs definitely won't be able to avoid a planned terrorist attack. They are certainly deterrence measures, but they can't bring total security."

How to Enhance Security

With more government regulations expected, Partsch predicts increased outsourcing of supply chain security functions to 3PLs.

In 3PL users' view, the top three measures 3PLs can use to maintain or enhance supply chain security are providing physical security for material goods (57%), developing security procedures in collaboration with customers (57%), and providing proactive reports and alerts when shipments deviate from planned routes or schedules (54%) (**Figure 19**). Scanning at key points, possessing certifications such as C-TPAT or AEO, and providing alternate routing are measures cited by about half of 3PL users.

Security Glossary

10+2 - Mandated by the SAFE Port Act of 2006, the U.S. Department of Homeland Security has proposed a new security screening rule, commonly called 10+2, that will require shippers and carriers to capture 12 more data elements for shipments being imported into the U.S.

AEO - Authorized Economic Operator: An internationally recognized quality mark indicating a company is a secure trader and a reliable trading partner.

C-TPAT - Customs-Trade Partnership Against Terrorism: A voluntary US program in which participants invest in certain security measures in exchange for benefits including reduced inspections and expedited border processing.

E-Pedigree - A collection of US state regulations and a proposed US national requirement to ensure a chain-of-custody record in the pharmaceutical supply chain using RFID. Similar EU regulations require development of a comprehensive system of traceability within the food and feed businesses.

ISO/PAS 28000:2005: An International Organization for Standardization (ISO) standard, also called "Specification for security management systems for the supply chain," which specifies the requirements for a security management system, including end-to-end security assurance.

FIGURE 20: EXTENT TO WHICH CUSTOMERS ARE COLLABORATIVELY PLANNING AND COORDINATING SECURITY PROCESSES WITH 3PLS

Extent of Collaboration	All Industries	Auto-motive	Chemical	Consumer	Food & Beverage	High Tech	Manufacturing	Life Sciences	Retail
Not at all. Our 3PL already provides adequate security without our help.	18%	25%	19%	16%	15%	18%	24%	14%	17%
Not at all. However, we need to start collaborating with our 3PL to drive security improvements.	13	14	17	12	22	12	21	10	6
To a limited extent. We collaborate with our 3PL to achieve selected security improvements.	48	45	50	47	48	41	45	51	57
To a large extent. Most of our security process improvements are developed collaboratively with our 3PL.	21	16	14	25	15	29	10	25	20

But just as noted with information technology, there is a gap between what users feel is needed and what 3PLs are currently able to provide. As noted, many feel 3PLs are able to meet the physical security needs to prevent theft. But 3PL users are asking for more visibility, meaning proactive reports and alerts when shipments deviate from their planned route or schedule. Focus experts and ASE participants view more effective processes and IT-enabled transparency, such as what RFID can provide, as tools to close this gap.

“Information reduces the impact of a security breach,” explains Rosalyn Wilson, Supply Chain Consultant and co-author of the book, *Securing Global Transportation Networks*. “In order to have visibility you need access to real-time information, being able to give answers and make correct decisions in response to a security breach or delays.”

Minimizing touches throughout processes is essential. “If I want to ship a product from Munich to the US, I already have an average of 14 possible break points. If I want to ship to Asia, I may have more than 50. Imagine that number, and at each of those break points, something may go wrong,” says Tompkins’ Partsch. Add in several different providers and IT systems, and the risks multiply.

IT is an enabler to closing holes in security. “IT plays a significant and central role, because supply chain visibility needs to be created with the respective IT tools and processes first,” Partsch continues. “However, it’s important to keep in mind that IT always is no more than a tool, not the solution.”

Focus interview experts’ recommended steps include:

- Jointly assessing the current levels and locations of risk and the capabilities of the 3PL and its customer.

- Setting up the right processes. Companies tend to think in terms of technology, but processes are what matter.
- Assigning responsibility. Smaller companies are adding security to supply chain management job descriptions, while larger ones are creating dedicated positions and even boardroom-level accountability.
- Learning to better analyze and act on data, such as dynamic re-routing.
- Exploiting technologies such as global positioning systems, RFID and container seals.
- Being proactive with security, rather than waiting for regulations.
- Adopting of ISO/PAS 28000:2005, an international security standard that takes an end-to-end perspective.
- Increasing collaboration, including setting up standards of excellence.

Overall, about one-fifth of respondents (21%) are already collaborating with their 3PLs on security to a large extent (**Figure 20**). Another 18% feel such collaboration isn’t necessary, that their 3PLs already provide adequate security without their help. But the majority (61%) could potentially benefit from increased collaboration with their 3PLs, acknowledging a need to start collaborating or characterizing current collaboration efforts as only limited. The higher the company’s revenue, the more likely they are collaborating with 3PLs on security, perhaps because they possess the resources to do so.

Industries differ in the percentage of companies collaborating with their 3PLs on security “to a large extent.” High tech appears to collaborate the most with 3PLs, followed by life sciences and consumer products, and then retail.

In the food supply chain, the impact of joint collaboration on security has particular resonance: Insecure food handling practices, for example, can have dire effects, notes EVO's Gevers Deynoot. Regulations also affect collaboration: To maintain AEO status, for example, a company must prove its suppliers are safe — including its 3PLs.

Determining optimal security strategies is frustrating for some 3PL users. One international shipper expresses the array of supply chain security solutions this way: "In general we have so many things to do, and 80% are not really effective. We want to invest our time in pinpointed activities that really work."

Making Security Investments Pay

Perhaps the biggest impediment to secure supply chains is the widely held belief that spending will not be recouped in tangible benefits.

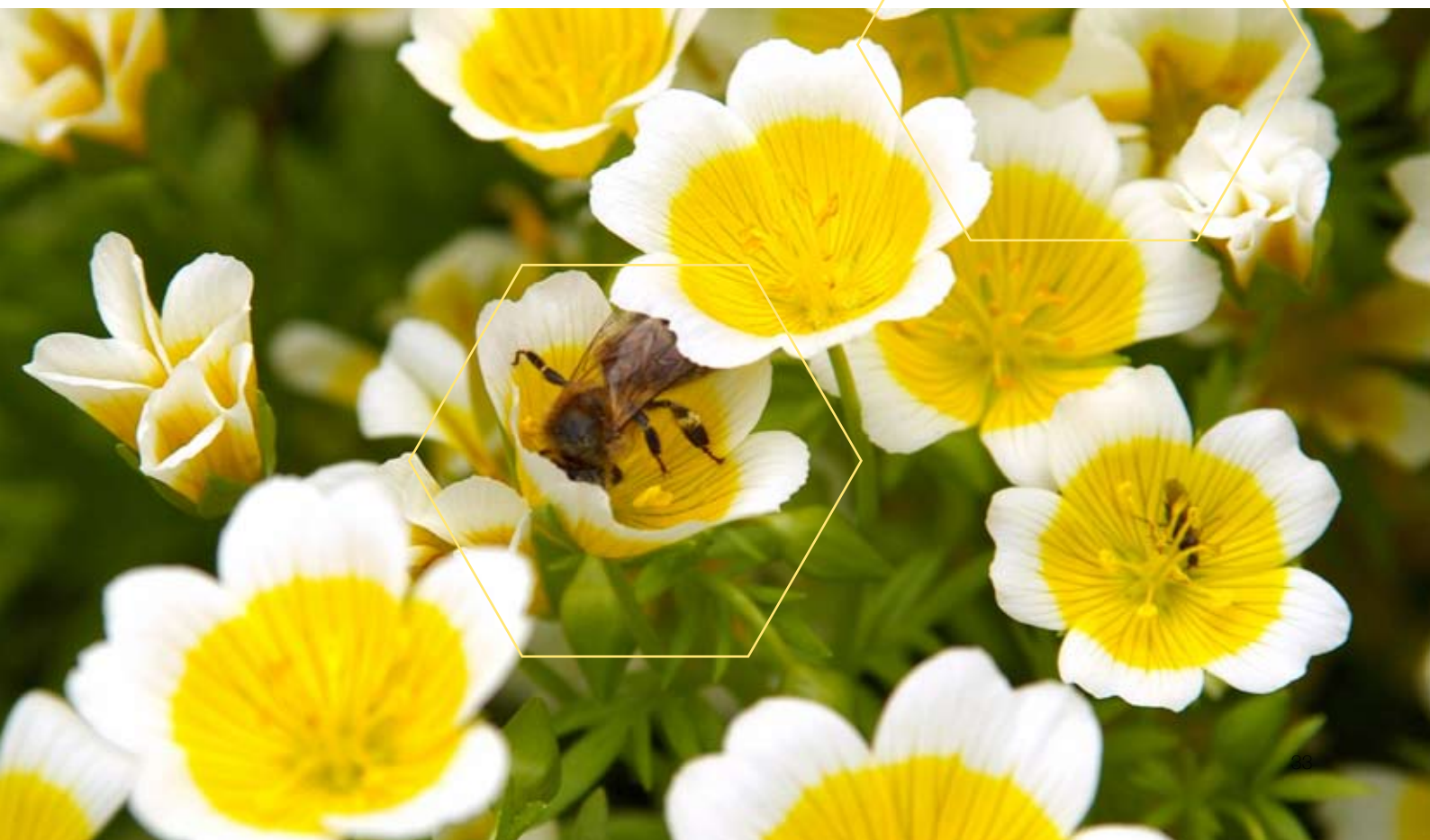
"A secure supply chain always is an efficient one as well," says Tompkins' Partsch. "A chain that does not break simply is more cost effective than one that breaks."

Studies of collateral benefits to supply chain security investments have shown increases in visibility, efficiency, customer satisfaction, and inventory management, as well as

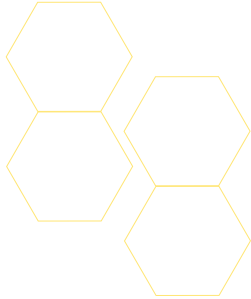
reduced cycle time, shipping time and costs. A secure work environment encourages employee retention, and could lead to lower insurance premiums, notes Wilson. 3PLs with supply chain security capabilities and certifications will be at a competitive advantage. For instance, companies may prefer to do business with 3PLs that are C-TPAT certified.

Security: The Takeaways

While theft is top-of-mind for 3PL users when it comes to security, ensuring a safe supply chain requires assessment of myriad additional threats, from natural disasters to product tampering. Users are generally satisfied with 3PLs' security performance to date, but growing awareness of other potential supply chain disruptors reveals a gap between expectations and capabilities. Physical security, collaboration, and alerts top 3PL users' lists of the most effective means for 3PLs to provide security. Users appear more concerned with the financial and operational effects of meeting anti-terror compliance mandates than the terror acts they're intended to prevent. Fortunately, there are a number of concrete steps companies and their 3PLs can take to begin to assess and address security gaps, with attaining visibility topping the list. Even better, innovators have proved that these steps also yield considerable collateral benefits that help recoup costs and create a more robust and flexible supply chain.



Strategic Assessment



This study has documented the evolution of the third-party logistics industry and its relationships with customers over the past thirteen years. In the long term, we have seen considerable progress both in the quality and range of services 3PLs can deliver, and in 3PL users' willingness to entrust their supply chain operations to capable partners.

But not every aspect of the industry has continued to grow as it did in its more formative years. Although customers will continue to be drawn to providers that invest in their ability to integrate services and systems, many often exhibit a reluctance to move beyond the purchase and use of operational and commoditized services into the realm of more innovative, customer-facing, and strategic services.

For users willing to step outside their comfort levels a bit, however, there is evidence to suggest there are more benefits to exploit from 3PL partners. For example, when pain management specialist Endo Pharmaceuticals formed in 1997, the company chose to outsource the bulk of its supply chain operation rather than build internal capabilities, engaging in a 4PL relationship. Earlier this year, the close integration of Endo with its 4PL enabled them to launch and begin distribution of two new products within 17 days of acquiring the products or attaining their regulatory approvals. "We achieve a scalability that most theoretical strategists talk about, but few achieve," says Daniel Carbery, Senior Vice President of Operations and Generics for Endo.

For those willing to advance current 3PL-customer relationships beyond today's sticking points, the reward may well be enhanced supply chain efficiencies that deliver competitive advantage and customer satisfaction.

Integrated Logistics

Entrusting integration of supply chain systems and services to a 3PL is a decision to be made with much care. Our research into the issues behind integrated logistics struck a similar chord as last year's assessment of supply chain collaboration: An initial willingness to cooperate with 3PLs sometimes diminishes as a company confronts the realities of opening up their books, providing details about current practices and improvement needs, developing joint solutions, and sharing the benefits. The sad news is that, at the end of the day, some customers still regard the 3PL as a "vendor" rather than as a "supply chain partner."

The benefits of supply chain collaboration and logistics integration can be huge, but may only be reaped if a company is really convinced that this will deliver greater benefits than doing it themselves or by engaging in traditional customer-supplier behavior that may be more adversarial than collaborative.

Additional effort is also required of 3PLs that want to be successful in this arena. Customers will be drawn to providers that invest in their integrated services offerings. This is among the payoffs of working to close the IT expectation/performance gap that has persisted among 3PLs and their customers. Integration-enabling, open standards-based technology will help to increase agility, lower costs, and deliver stronger relationships. Customers that use technology to drive cross-enterprise processes with 3PLs can get the benefits of integration without creating an unnecessary level of dependence upon the provider.

Last year, our strategic assessment asserted that collaboration is a productive way to deliver value beyond simple cost savings, with that value derived by mitigating complexity and enabling a sharing of resources and capabilities. A successful integrated logistics relationship is actually an excellent example of collaboration at work – when both partners are truly committed to the effort, there is significant reward to be had for both.

Green Supply Chain

Concern for the impact of human activities on the environment has catapulted from a fringe issue to a widely held public — and therefore corporate — concern, seemingly overnight. Companies can't afford lukewarm responses. They must begin to incorporate "green" thinking into company and supply chain strategies and action plans — today. The "greening" of the supply chain will have strong and increasing effects on the gamut of supply chain concerns, from strategic issues such as balance sheet impact to more tactical ones, including modal split, selection of equipment, business processes and behaviors.

Companies should not be shy about seeking outside advice regarding green supply chain initiatives. Proper assessment of carbon footprint and calculating the effects of corrective actions are not simple things to do, but taking these steps is a must-do, and resources available to assist in this process are proliferating. 3PLs have a significant opportunity to rise to the occasion and provide expert advice to their customers regarding green supply chain initiatives. In addition, a green maturity model would be extremely valuable in helping companies devise and evolve green supply chain strategies.

There is a wide array of steps companies can take now to start addressing greenhouse gas emissions, such as improved shipment consolidation, transportation optimization, and driver retraining. As with consultative advice, these activities also represent areas where 3PLs are poised to play a pivotal role in helping their customers succeed in implementing green supply chains.

Creativity will be an important tool in ensuring that green supply chain efforts can help improve the environment in a cost effective manner. A unique example is SkySails, a company that attaches giant towing kites to cargo ships, reducing a ship's annual fuel costs, and related greenhouse gas emissions, by 10% to 35% on average. Creativity can also be applied to reworking concepts designed around cost-savings to also consider carbon savings. For example, the transportation marketplaces launched during the early dot-com days were only marginally successful. However, it is not hard to imagine a reemergence of transportation marketplaces that enable shippers to merge their volume with other shippers in an ecosystem that seeks not only to reduce transportation costs but to reduce greenhouse gas

emissions as well. The concept of "carbon ROI," previously introduced in this report, is another example of merging financial and environmental concepts.

The bottom line is, as trusted advisers on supply chain issues, 3PLs have a responsibility to help their customers, and an opportunity to differentiate themselves, by becoming green-savvy. Other resources, such as consultancies, associations, and government organizations, are also available to help companies move toward a greener supply chain.

Green is not a fad; it will soon become an important measuring stick for the success of a supply chain. Companies need to start their green efforts, now.

Supply Chain Security

The same "act now" imperative underlies our final topic, supply chain security. As our focus interview experts and ASE participants made clear, the business community is better off being proactive with supply chain security solutions than by waiting for government to impose additional requirements. Such regulations may bring about a baseline of security practices that represent the common denominator required for safe commerce, but companies will likely have specific needs that require additional measures.

Government and business are not always focused on the same threats. For example, government is increasingly focused on the threat of terrorism, while business is more concerned about theft and disruptions from natural disasters. If the business community takes the lead, there is an opportunity to implement supply chain security in a manner that addresses both government and business concerns and has a positive impact on balance sheets. However, if companies don't take advantage of this opportunity, compliance costs associated with new government regulations will likely outstrip potential benefits from enhanced security.

Supply chain security is not just an industry issue. 3PLs and their customers need to work together to mitigate the risks inherent in individual supply chains. They must develop plans to improve security and recover from disruptions to the logistics network with alternate ways of meeting customer needs.

Both 3PLs and customers must make
a concerted effort to truly collaborate.

The combination of a willing company and a capable 3PL can result in outcomes far beyond what are initially perceived as the benefits of outsourcing.

A useful tool is Total Security Management, the practice of developing and implementing comprehensive risk management and security practices for a firm's entire supply chain. According to one of our focus interview experts, Rosalyn Wilson, the conditions that now exist in transportation security are similar to the situation in place when the now-revered Dr. W. Edwards Deming tried to convince the business world in the 1960s that quality mattered and that Total Quality Management could be used to create value. Time will likely tell that addressing security also pays dividends in benefits for the supply chain, including lower cost, improved service, and increased flexibility.

Multiplying the Benefits

Savvy companies will see an opportunity to multiply their benefits by seeking solutions that span integrated logistics, green supply chain, and supply chain security. For example, engaging a 3PL for integration of systems and services could make security issues easier to address. Similarly, smart real-time consolidation of shipments and route optimization, achieved through implementation of transportation planning and execution systems, could on the one hand reduce a company's carbon footprint and on the other hand provide a tool to reroute and reschedule quickly once there is a supply chain disruption.

The most advanced 3PLs, those able to provide an integrated service offering that spans traditional services such as transportation and warehousing, as well as newer services encompassing green supply chain and security, will have a true competitive advantage.

Conclusion

The issues that challenge supply chain executives in 2008 are formidable. Rapidly rising fuel costs, the globalization

of the supply chain, new security threats, and pressure to be both dynamic and environmentally and socially responsible are forcing companies to be innovative and strategic in their supply chain design and execution.

In this year's study, we have examined three issues of great interest to supply chain executives. Outsourcing of integrated logistics can be considered an option. It can create powerful benefits for some companies; however, it must be leveraged cautiously because of the important issues and potential risks outlined in this report.

Green supply chain and supply chain security cannot be regarded as negotiable. These are areas where companies must act, or put their supply chains at an unacceptable level of risk, whether that risk comes from politics, policy or public and customer opinions.

The issues addressed here represent only a few of the challenges and choices executives must face to keep their supply chains in tune with dynamic market conditions. Across the thirteen years of this study, it has become clear that the combination of a willing company and a capable 3PL can result in outcomes far beyond what are initially perceived as the benefits of outsourcing. A well-run 3PL brings a multi-company, cross-industry perspective and array of skill sets and systems to the table, which can be leveraged by customers with a collaborative mindset and an understanding of how to best complement their own capabilities with those of a 3PL.

The relationship that results enriches both partners' ability to tackle emerging issues such as heightened security requirements and a green supply chain while positioning both companies for the next, as-yet-unknown, supply chain challenge.



Credits

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