



2006 THIRD - PARTY LOGISTICS

Results and Findings of the 11th Annual Study





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Introduction

This report presents findings from the 11th Annual Third-Party Logistics Study. From 1996 to 2006, this study has helped to identify and track key trends and views of the third-party logistics (3PL) industry from the people who use 3PL services. Over its 11-year history, each annual study has addressed the key issues in logistics and the 3PL industry in an increasingly broader range of user industries and regions.

The sponsors of this study, Georgia Institute of Technology, Capgemini, DHL, and SAP, would like to express their collective appreciation to all who have participated or helped in any way with this study. These are the people in the logistics business to whom we owe a great debt of gratitude.

Study Objectives and Methodology

During the spring and summer of 2006, C. John Langley Jr., Ph.D., of the Georgia Institute of Technology, with Capgemini, DHL, and SAP, conducted an extensive study about using 3PL services in North America, Western Europe, Asia-Pacific, and Latin America.^{1,2} This study examines the perspectives of 3PL users rather than 3PL providers.

2006 Study Objectives

- * Measure the development and growth of the 3PL industry across major industry segments and across several diverse regions of the world.
- * 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 to 3PL providers.
- * Investigate leading 3PL topics, including service offerings and capabilities, technology, structuring and managing effective 3PL relationships, and how customers view success and value from their 3PL relationships.
- * Understand the issues related to 3PL providers and users in the automotive, chemical, high-tech and electronics, and life sciences and healthcare industries.
- * Look at 3PL use in emerging markets, particularly China.
- * Provide a strategic assessment of the future of the 3PL industry.

1 The authors of the study would like to thank the Latin America Logistics Center (LALC) and the Shanghai Logistician Club for serving as Supporting Organizations for this 11th Annual Third-Party Logistics Study. Under the guidance of Executive Director Maria F. Rey, the LALC again provided contact information for Latin America executives, and also translated the entire survey into Spanish and Portuguese. The survey effort in China was facilitated by the Shanghai Logistician Club, with the assistance of Tony Xia, who is Senior Logistics Manager with Emerson Electric (China) and who is one of the founders of the Shanghai Logistician Club. The study team expresses its appreciation to Sean McKenna of Capgemini for his diligent and helpful work as a member of the project team.

2 The 2006 study included a number of completed surveys from executives in South Africa and the Middle East, although the number of responses were not sufficient for meaningful analysis or a true understanding of 3PL use in those regions.

3 Consistent with previous years, the target respondent holds a title of manager, director, or vice president of logistics or supply chain management. Respondents were asked to think of a "third-party logistics provider (3PL)" as one that provides multiple logistics services for its clients and customers, and a "fourth-party logistics provider (4PL)" as one that includes more advanced logistics outsourcing services than a conventional 3PL normally would provide.

4 Surveys were translated into Chinese, French, German, Portuguese, and Spanish.

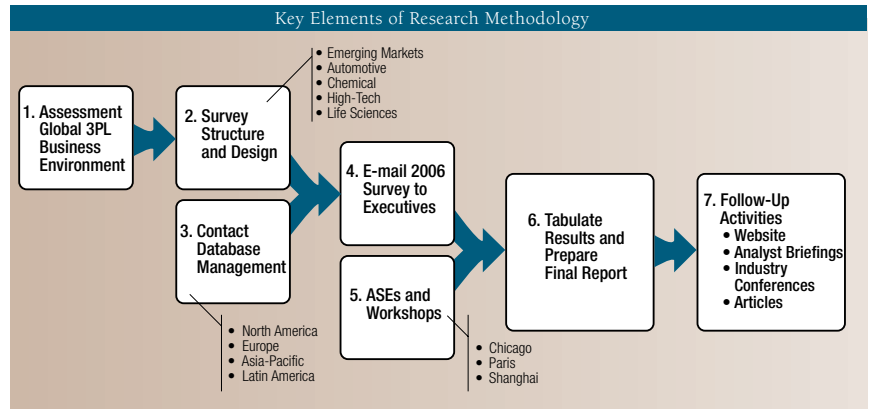
5 The study involved e-mailing surveys to logistics and supply chain executives in the regions of interest.

Methodology and Research Approach

Exhibit 1 outlines the study methodology. Highlights of and key changes to the 2006 study methodology include:

Exhibit 1

- ✳ Focused on 3PL users in the key regions of the world.^{3,4} Key industries targeted include automotive, chemical, consumer products, food and beverage, high-tech and electronics, industrial manufacturing/defense, life sciences and healthcare, retail, and telecommunications (see Exhibit 2).
- ✳ Reduced the number of survey questions, and added questions about emerging markets (emphasis on China) and about automotive, chemical, high-tech and electronics, and life sciences and healthcare industry verticals.
- ✳ Sent surveys to executives of 21,631 companies. The number of returned and usable surveys was 1,430 (an overall response rate of 7%).⁵
- ✳ Conducted workshops with 3PL users at the Capgemini Accelerated Solutions Environment (ASE) facilities in Chicago and Paris, and a workshop/focus group with key executives in Shanghai, China. Details about these sessions are in the appendix.

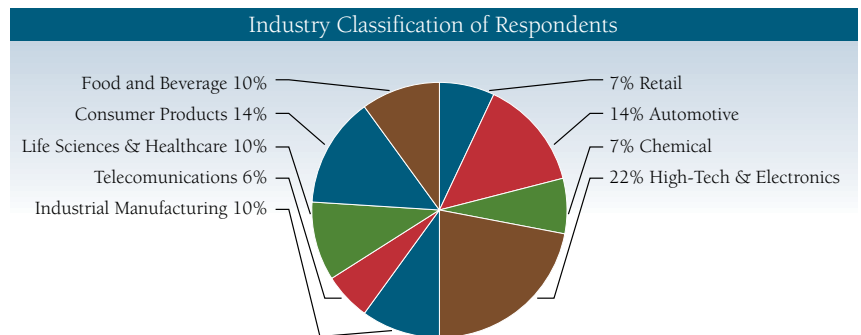


Characteristics of Survey Respondents⁶

Respondent Organization Sales Revenues. The percentages of companies having expected sales in excess of US\$1 billion were 68% in North America, 64% in Western Europe, 48% in Asia-Pacific, and 16% in Latin America.^{7,8}

Organizational Location in Supply Chain. Similar to last year's study, a majority of the survey respondents were from manufacturing (typically ranging between 60% to 70%, depending on region). Between 15% to 25% of the respondents were from the wholesale/distribution sectors, with 5% to 10% from the retail sector.

Exhibit 2



6 As reported in recent years of this 3PL study, approximately 75% to 80% of executives identified their organizations as "users" of 3PL services. Because this year's contact database has a greater prevalence of users versus non-users, the percentages of users versus non-users from the 2006 study is not directly comparable with those of previous years. This does not affect any of the other study findings as most of the report content focuses on responses from those who are users of 3PL services.

7 Respondents in each of the regions studied were given the option of responding to financial questions in customary monetary units (e.g., US\$ or euro). Results were then converted to US\$.

8 Latin American respondents clearly represented smaller organizations; 71% of those responses were from companies with total sales less than US\$500 million.



Summary of Key Findings

This study provides insights into customers' use of 3PL services across several key industries and regions worldwide. Considering that total global 3PL revenues in 2005 were approximately US\$370 billion,⁹ outsourced logistics services continue to represent a significant portion of overall logistics and supply chain expenditures.

The major findings of this year's 3PL study are:

Logistics Outsourcing Practices. Most logistics and supply chain executives surveyed in North America, Europe, Asia-Pacific, and Latin America feel that logistics represents a strategic, competitive advantage for their companies. The response was mixed as to whether 3PL providers currently offer customers new and innovative ways to improve logistics effectiveness; however, most respondents agreed that 3PL providers were central to the functioning of their logistics and supply chain operations. Two key factors relating to the selection of 3PL providers include price and quality of tactical, operational logistics services. Generally speaking, about half of 3PL users' total logistics expenditures is spent on 3PL providers. Most users characterized their relationships with 3PL providers as "successful."

3PL Service Offerings and Capabilities. Traditional 3PL services, such as transportation, warehousing, and customs clearance, are the ones most often outsourced. These are also the services most likely to be outsourced in the future by those 3PL users who plan to increase their outsourcing over the next three to five years. Overall satisfaction with 3PL providers remains high in 2006, but 3PL users clearly expect continual improvements in service levels and information technology (IT) capabilities. As with provider selection, price of 3PL services is the factor of greatest importance in evaluating 3PL success, followed closely by quality of tactical, operational logistics services. Value-added services has for the third consecutive year been of lower importance. Among the key challenges for the 3PL industry in the future are capacity management and innovation. While 3PL users acknowledge innovations such as lead logistics providers and fourth-party logistics (4PL) providers, significant room for improvement still exists in the knowledge and use of these approaches.

Technology Enablement. As 3PL user firms extend their supply chains around the globe, the resulting complexity will compel management to focus more on the enabling technologies in supply chain management, specifically IT. Ninety-two percent of this year's survey respondents agree that IT capabilities are a necessary element of overall 3PL provider expertise. Further evidence of the increasing emphasis on IT comes from the fact that 60% of the respondents specifically assess a 3PL provider's IT capabilities when selecting a provider. Unfortunately, far fewer respondents—35%—report they are satisfied with their 3PL providers' IT capabilities. This disparity is significant. Resolving this disparity will require shared responsibility from both 3PL users and providers to ensure that the technology capabilities from 3PL providers align with the objectives of 3PL users.

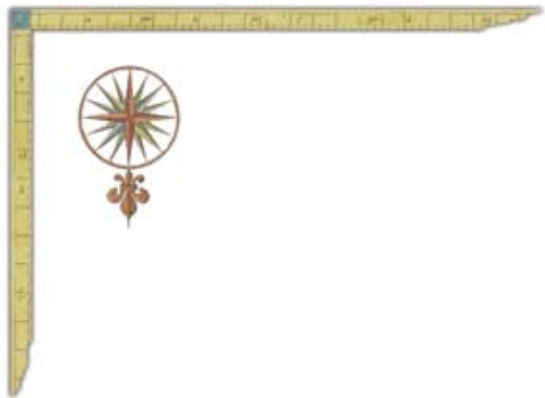
Management and Relationship Issues. Most 3PL providers desire to move their customers from a conventional customer-supplier relationship to a true “partnership.” Doing this would allay a frequent criticism from this year’s survey respondents: 3PL providers many times react to situations; they do not anticipate and identify opportunities to improve. To be fair, study results also suggest that customers sometimes limit 3PL providers from demonstrating their full range of capabilities. Not so coincidentally, upgrading the 3PL provider-user relationship fits in well with a consistent theme across all regions studied—and from both 3PL providers as well as 3PL users: Trust, flexibility, and responsiveness are essential attributes for both sides of the 3PL provider-user relationship to move forward. At any rate, the growing complexity of the logistics business will continue to place significant emphasis on improving these relationships between users and providers of 3PL services.

Emerging Markets. In the 11 years of this study, survey respondents have continually noted the ever-increasing effects of globalization on their business.¹⁰ For this reason, the 2006 study includes extra questions about the involvement of 3PL providers in emerging markets, particularly in China. Respondents generally have plans to develop a wide spectrum of logistics activities in China, the most popular being the importing and exporting of finished goods. Currently, transportation and customs brokerage services by 3PL providers in China appear to be the most prevalent, while services such as cross-docking and IT use are not as widespread as in other regions surveyed. Although 3PL users in China express a satisfaction with their 3PL providers that is similar to that reported by users in other regions, the lack of continual improvement is considered a bigger problem in China than in other areas as a whole. Generally, the continued growth of the 3PL sector in China and other emerging markets is a great opportunity for the logistics industry.

Strategic Assessment. Based on the findings from the 2006 3PL survey and associated workshops and ASE sessions with 3PL users, several key issues are central to the strategic role 3PL providers play in individual customer organizations and supply chains overall. These issues include the growth and consolidation of 3PL providers, the development of a “service portfolio” by 3PL providers, the emergence of “global 3PL providers,” the need for customers to develop a “3PL strategy,” 3PL user/provider relationships, radio frequency identification and IT, the future growth of the 4PL provider concept, and 3PL providers’ creation of supply chain value.

Industry Sectors Focus. As a new study initiative for 2006, the survey included additional questions for 3PL users who reported their industry as automotive, chemical, high-tech and electronics, and life sciences and healthcare. This report contains summaries of the roles 3PL providers play in these key industries.





Logistics Outsourcing Practices

Overall Trends

Strategic Perspectives. Respondents attached great importance to logistics and supply chain issues, which is highly consistent with the findings from last year. Specifically, 85% of the North American respondents, 89% from Western Europe, 88% from Asia-Pacific, and 95% from Latin America agree that “logistics represents a strategic, competitive advantage for our company.”

Effect of 3PL Providers on Logistics Effectiveness. Respondents generally felt that “3PLs provide us with new and innovative ways to improve logistics effectiveness” (North America, 62%; Western Europe, 48%; Asia-Pacific, 52%; and Latin America, 83%). Nevertheless, these results also suggest that respondents believe room for improvement exists in the extent to which 3PL use helps with the objectives related to improving logistics effectiveness.¹¹

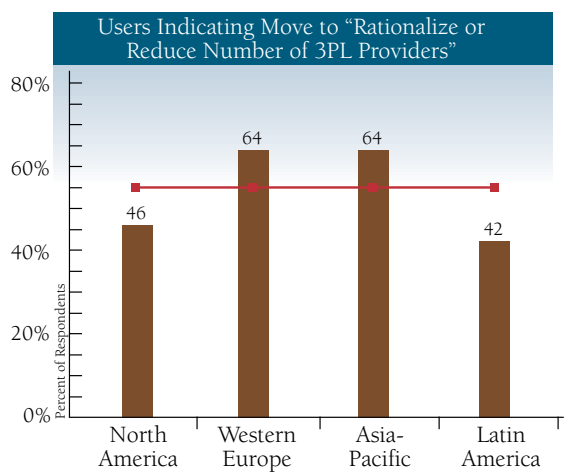
Number of 3PL Providers Used. Previous years’ results show that, depending on region, approximately 65% to 80% of user organizations actually contract one to five 3PL providers. Exhibit 3 shows the percentage of 3PL users in this year’s survey who are “moving to rationalize or reduce the number of 3PLs [they] use.” These results are consistent with the findings from 2004 and 2005. They show a continuing trend that 3PL users are taking steps to improve and streamline their procurement practices in relation to externally provided, integrated logistics services.

Logistics Activities Outsourced. Although this topic will be detailed in the next section, the logistics services most frequently outsourced are those that are more operational, transactional, and repetitive. Across all of the regions studied, the most frequently outsourced services include transportation (90%), warehousing (74%), customs clearance and brokerage (70%), and forwarding (54%). The services outsourced less frequently tend to be customer-related, involve the use of IT, and are more strategic.

Factors Relating to Selecting 3PL Providers. For 87% of the respondents, price was a factor in selecting their 3PL provider; the next highest-rated factor was the quality of “tactical, operational logistics service” (85%). These two criteria are not mutually exclusive; as one 3PL user said during an ASE session, “The importance is to find the right balance between service quality and right price.” Not surprisingly, there are other criteria, which will be detailed in the next section.

Exhibit 3

— 55% All Regions

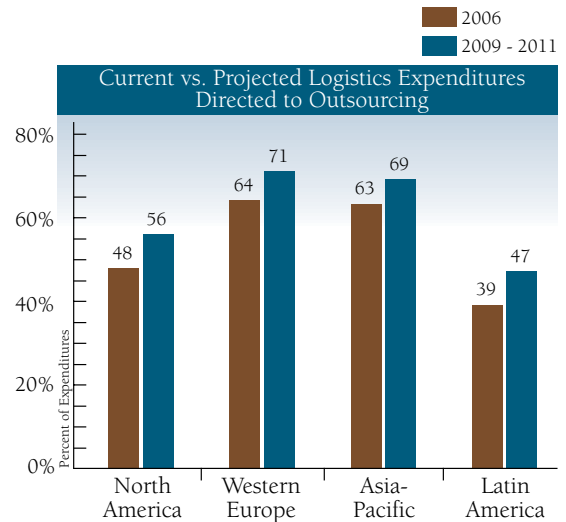


¹¹ Interestingly, the Latin American respondents agreed the most with this survey question. This might be because organizations with smaller revenues experience greater logistics effectiveness from using 3PL providers.

Expenditures on 3PL Services. Regarding what percentage of total current logistics expenditures is directed to outsourcing currently (2006) and in the near future (2009 to 2011; see Exhibit 4):

- * The 3PL users in Western Europe and Asia-Pacific tend to spend greater portions of their logistics budgets on outsourcing than their counterparts in North America and Latin America.
- * One way to look at the future plans for outsourcing is to calculate the expected three- to five-year growth rates of outsourcing expenditures as a percentage of overall logistics expenditures. These percentages are: North America (17%), Western Europe (17%), Asia-Pacific (12%), and Latin America (13%). While the calculated growth rates in 2006 for North America and for Western Europe are the highest at 17%, these growth rates have not provided any consistent pattern of increase or decrease in the several years this question has been included in this study.
- * Over the years, one wonders whether the growth expectations of existing users of 3PL services are being met. Generally, year-to-year growth in specific geographies falls short of expectations that may have been stated in earlier years. The message here is that the available data do not support the contention that growth expectations are being met.

Exhibit 4

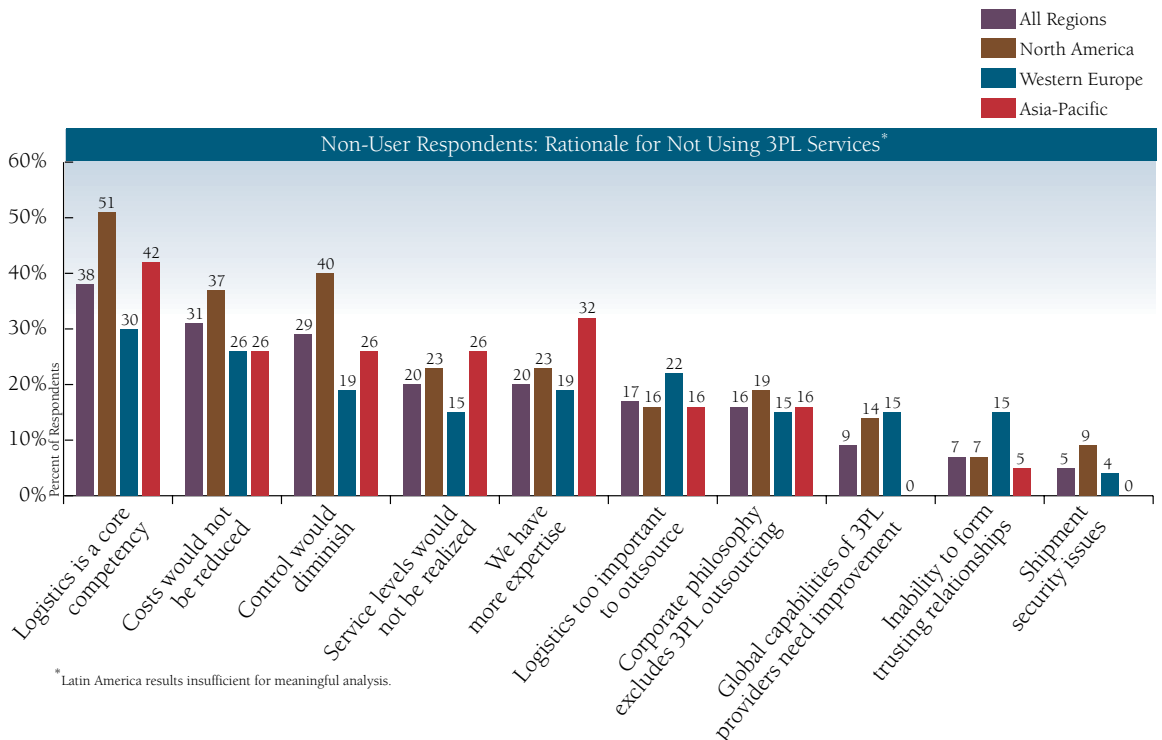


Overall Success of Logistics Outsourcing to 3PL Providers. Generally, respondents characterized their outsourcing efforts as “successful.” However, and again this year, respondents highlighted a number of areas where improvement in their 3PL relationships would be desirable.

Views of Non-Users

The most prevalent reason for not using a 3PL provider, as summarized in Exhibit 5, was because “logistics is viewed as a core competency at our firm.” The overall percentage of non-users agreeing with this statement (38%) represents yet another year in which this important metric has increased.

Exhibit 5





3PL Service Offerings and Capabilities

Users of 3PL services are focusing mostly on traditional services such as transportation, warehousing, and customs clearance (see Exhibit 6). Transportation outsourcing is more significant in Western Europe and Asia-Pacific than in North America. Conversely, customs clearance and brokerage services are less outsourced in Western Europe, probably because of the simplified requirements within the European Union. The use of IT capabilities goes hand-in-hand with the use of traditional 3PL services.

More sophisticated 3PL services are less in demand, and they differ between regions. For instance, North American respondents indicated great interest in freight bill audit

Exhibit 6

Outsourced Logistics Services					
Logistics Activity	All Regions	North America	Western Europe	Asia-Pacific	Latin America
Transportation	90%	83%	95%	95%	90%
Warehousing	74	74	76	77	57
Customs Clearance and Brokerage	70	71	59	83	65
Forwarding	54	55	54	66	15
Shipment Consolidation	47	44	50	53	35
Reverse Logistics (Defective, Repair, Return)	35	28	44	36	30
Cross-Docking	34	36	40	30	18
Transportation Management	34	27	36	48	18
Freight Bill Auditing/Payment	33	55	22	18	17
Product Labeling, Packaging, Assembly, Kit	33	26	45	33	20
Fleet Management	19	13	20	21	30
Supply Chain Consultancy by 3PL Provider	18	21	16	16	10
Order Entry, Processing, and Fulfillment	14	14	10	14	19
LLP/4PL Services	11	12	13	6	15
Customer Service	10	8	9	13	10

and payments; among Western European and Asia-Pacific respondents, shipment consolidation, product labeling, and reverse logistics rated high. In Western Europe, the introduction of the waste electrical and electronic equipment (WEEE) directive has probably driven the need for reverse logistics. Last, the need for shipment consolidation is to a large extent driven by three industries: automotive, consumer products, and retail.

The limited use of the more sophisticated services such as “cross-docking” could be because 3PL outsourcing is still mainly based on particular activities, for example warehousing, and to a lesser degree on a more holistic approach where the full supply chain is outsourced.

The lack of consistency in core services among 3PL providers, both between 3PL providers and in what service levels each offers across geographies, is still an issue to 3PL users. One participant in an ASE mentioned, “It is not good enough just to be big and have global coverage, it is the location expertise and global consistency that matters.”

3PL Supply Chain Accomplishments

There is no doubt that 3PL providers are viewed as key contributors to the success of customer firms; 88% of the survey respondents agreed that 3PL providers offer their companies a competitive advantage. In all regions combined, survey respondents identified four main contributions to their success with 3PL providers: “price of 3PL services” (64%), “quality of tactical operation logistics services” (63%), “geographic presence in required regions” (55%), and “improved service levels” (51%).

But differences exist depending on the respondent’s global perspective and location. For example, “price of 3PL services” was considered a key success factor by 71% of the Asia-Pacific respondents, while only 59% of the North American and 66% of the Western European respondents thought so. All three regions were somewhat closer in considering the “quality of tactical operational logistics services” as a key success factor (North America, 67%; Asia-Pacific, 62%; and Western Europe, 59%).

One of the largest disparities among the three regions in what was considered a key success factor was for “improved service levels” (Asia-Pacific, 60%; Western Europe, 53%; and North America, 40%). This disparity could probably be attributed to the long history and refinement of the 3PL services in North America in contrast to the relative newness and ongoing improvements in 3PL outsourcing in Asia-Pacific. Both globally and regionally, 3PL users give the success of their 3PL efforts a mean score of around 4.0 out of a possible 5.0. Only 2.5% of the respondents feel that outsourcing their 3PL needs was unsuccessful.

Quantifiable Measures of 3PL Success					
Cost/Benefit	All Regions	North America	Western Europe	Asia-Pacific	Latin America
Logistics cost reduction	11.5%	9.9%	11.4%	13.7%	11.7%
Fixed logistics asset reduction	20.0%	12.7%	21.9%	21.8%	36.6%
Average order-cycle length change (days)	From 12.7 to 9.7	From 11.0 to 8.4	From 10.2 to 6.5	From 15.7 to 13.9	From 15.9 to 10.0

Exhibit 7 summarizes the results 3PL users experienced by contracting 3PL services. Respondents reported logistics cost reductions of 12%, with a low in North America of about 10% and a high in Asia-Pacific of about 14%. (Western Europe was around the global average.) The global average for reducing fixed logistics assets was 20% and for reducing order cycle times was three days.

These results are encouraging. Yet the lack of “continuous ongoing improvement” and “service commitment not realized” are still by far the problems survey respondents experience with the 3PL providers. Exhibit 8 shows other deficiencies that respondents noted in 3PL services.

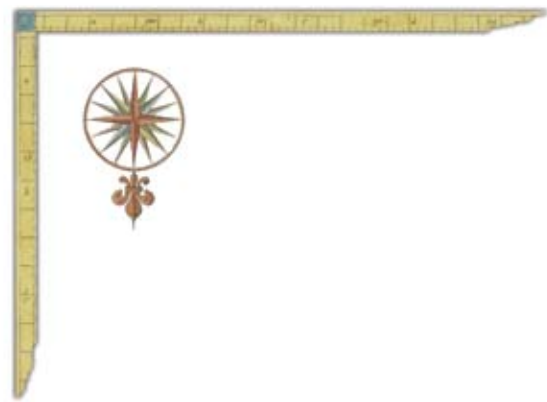
Use of IT has increased significantly over time, so much so that 92% of the 3PL users believe “IT is a necessary element of overall 3PL expertise.” Unfortunately, satisfaction with IT is not very high: Only 35% of the respondents (all regions) are satisfied with their 3PL provider’s IT capabilities.

Areas for 3PL Provider Improvement					
Areas for Improvement	All Regions	North America	Western Europe	Asia-Pacific	Latin America
Service level commitments not realized	51%	48%	50%	52%	60%
Lack of ongoing improvements and achievements in offerings	45	41	41	59	39
Information technology capabilities not sufficient	38	38	34	43	40
Cost reductions have not been realized	36	39	36	34	29
Lack of project management skills	36	34	39	44	17
Unsatisfactory transition during implementation stage	28	32	24	28	19
Lack of consultative / knowledge-based skills	24	19	27	33	12
Inability to form meaningful and trusting relationships	16	17	15	17	14
Lack of global capabilities	16	12	12	21	25
No problems	12	16	12	7	12

The high level of 3PL outsourcing—more than 55% of logistics budgets spent on outsourced services—is a great accomplishment for both 3PL users and providers. This rate is apt to increase in the future given that logistics represent a strategic competitive advantage in more than 88% of the surveyed 3PL users. In fact, survey respondents anticipate increasing their outsourcing expenditures to 62% of their total logistics budgets in the next three to five years.

The Future of 3PL Service Offerings and Capabilities

Survey respondents seem generally happy with their 3PL providers and the traditional logistics services they mainly use. An innovation from the 3PL industry is that of lead logistics provider (LLP) and 4PL provider. However, only a third of the 3PL users see the potential benefits of moving from a 3PL provider to an LLP or a 4PL provider. Of the 3PL users surveyed, 15% use LLP/4PL providers today. Only by outsourcing the full supply chain will this type of offering be attractive to 3PL users. To put this in perspective, 55% of the 3PL users surveyed expect to further rationalize or reduce the number of 3PL providers they are using today.



Technology Enablement

Technology's role in the design, delivery, and continuing enhancement of 3PL services continues to grow in importance and visibility. In this second year of formally addressing IT in this study, 92% of the respondents agreed that IT capabilities are a necessary element of overall 3PL provider expertise (see Exhibit 9). Furthermore, a 3PL provider's IT capabilities were specifically assessed in 60% of the 3PL vendor selection processes.

However, as was noted in last year's study, a distinct (and growing) gap exists between 3PL users' emphasis on the importance of a 3PL provider's IT capabilities and their satisfaction with the provision of those capabilities. This year, only 35% of the respondents reported being satisfied with their 3PL provider's IT capabilities (see Exhibit 10). This divergence results in a significant gap between expectations and performance (see Exhibit 11). This gap represents a challenge for successful global supply chain management in general, and for the continuing success of outsourced 3PL relationships in particular.

As reported in previous years of this study, the declining level of IT satisfaction has become a persistent management challenge for the industry. This dissatisfaction is quite apparent in the two regions of the world where we have data going back four years. In 2003, 75% of the North American respondents indicated satisfaction with their 3PL provider's IT capabilities. In 2004, that dropped to 45%, in 2005 to 40%, and this year to 36%. A drop in satisfaction also appears among Western European respondents: In 2003, 56% of the respondents were satisfied with their 3PL provider's IT capabilities; this year, only 36% were satisfied.

Exhibit 9

■ 92% All Regions

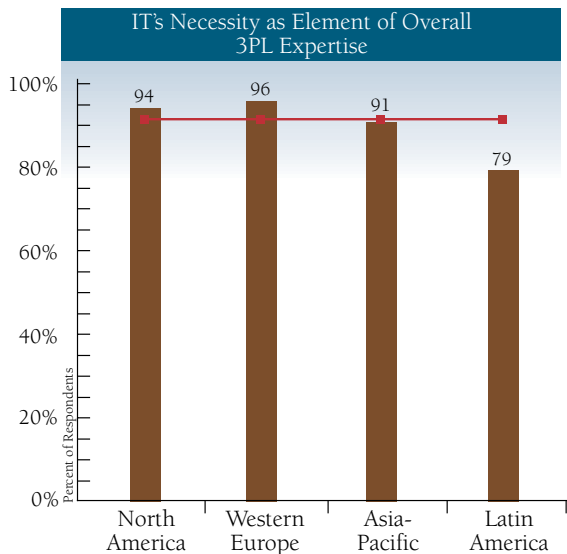
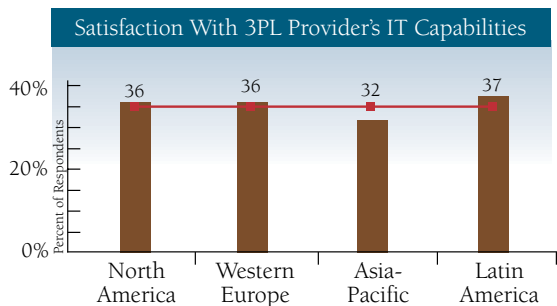


Exhibit 10

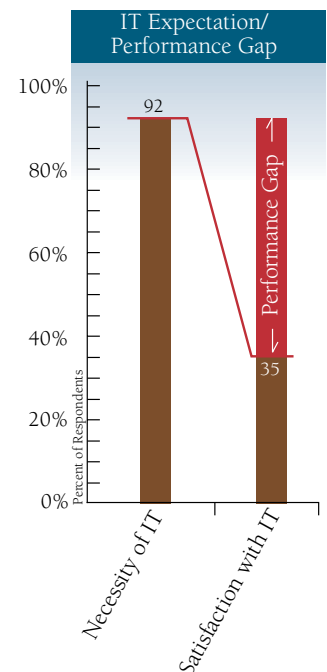
■ 35% All Regions



The key questions for both 3PL providers and their customers are:

- * Is this trend the result of declining performance and capability on the part of the 3PL providers, or
- * Is this a rapidly accelerating increase in expectations for 3PL IT capability on the part of 3PL users, or
- * Is this a combination of both factors?

Exhibit 11



Information Technology-Based Services

The 2006 survey identified what IT-based services respondents were using, as well as the services they believe will be requirements in the future. The top five technology-based services continue to be (see Exhibit 12):

- * Warehouse/distribution center management
- * Transportation management (execution)¹²
- * Visibility tools (shipment tracking/tracing/event management)
- * Web-enabled communications
- * Transportation management (planning)

These technology-based services have been the consistent top five for the four years we have focused on these services (i.e., since the eighth annual 3PL study in 2003). Of particular note in the 2006 results, however, is the significant emphasis on planned future use of the 3PL providers' technology services *in the more strategic areas* of supply chain planning (30%) and transportation planning (30%)¹³. These two areas of IT capability are further "upstream" in the supply chain business process.

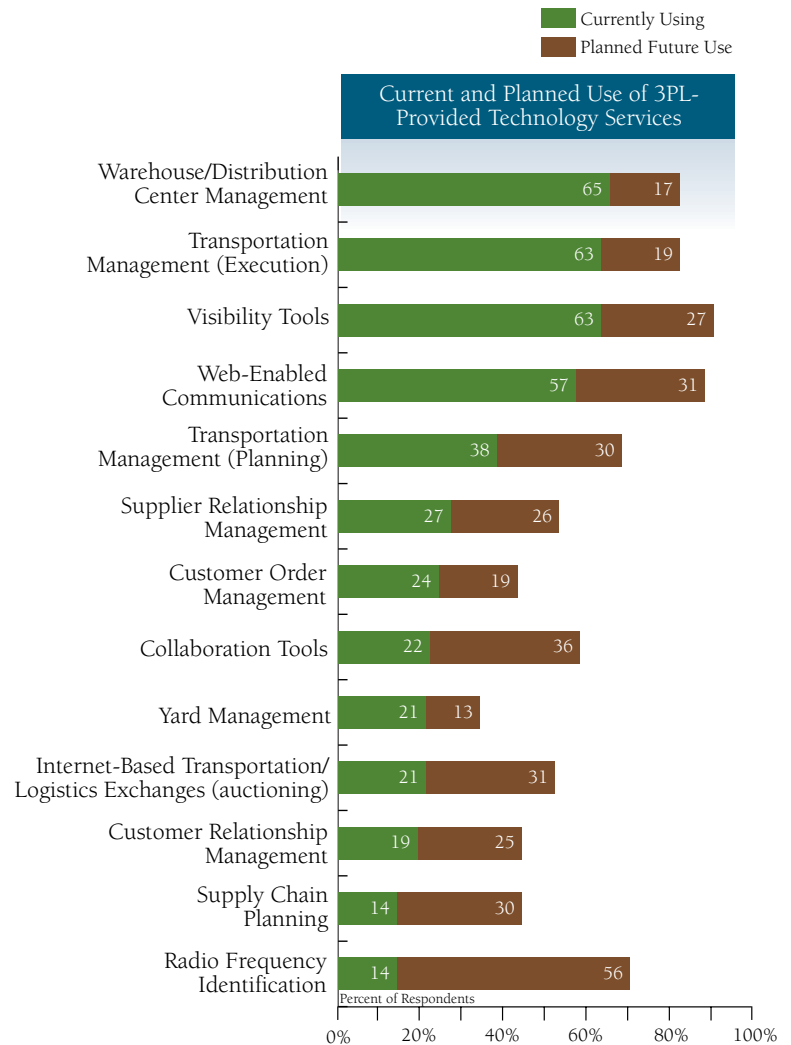
This observation leads us to believe that 3PL users are now looking to their 3PL providers to offer better and more comprehensive logistics services. The much higher results in the 2006 data for planned future use suggests that 3PL providers will face even more pressure from their customers to deliver increasingly sophisticated IT-based services. Consequently, 3PL providers must address this trend with their customers and prospects. The degree of integration and collaboration required to bring the 3PL providers further upstream into an enterprise's business processes also engenders business relationship issues that must address both technical access and contractual factors.

RFID's Status in 3PL

In 2006, 14% of the respondents reported that radio frequency identification (RFID) was part of the overall scope of services provided by their 3PL providers. This is up slightly from the 12% who indicated the use of RFID in 2005. This year, 56% of the respondents noted that RFID will be a future requirement, up from 47% in 2005.

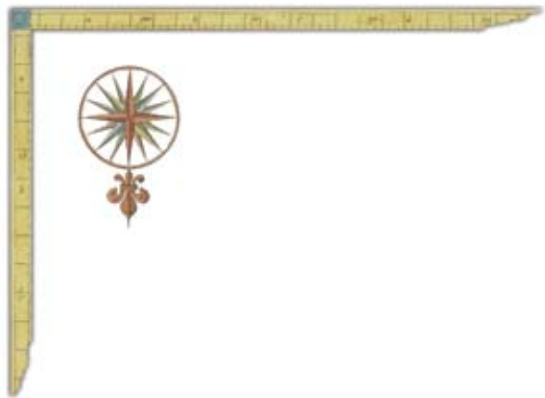
With current usage rising (albeit slowly), and planned future use rising as well, the RFID hype cycle is not about to fade away quietly. Rather, it will continue to become more strategic and central to the future of supply chain management. With RFID's continued expansion and the continuing growth of the 3PL outsourcing market, 3PL users will soon be requiring 3PL providers to include RFID capabilities. The big question is whether 3PL providers have the depth of resources (capital and people) to tackle this future technological expectation. We believe that addressing this future requirement adequately will only be accomplished in a shared-investment approach between 3PL providers and their customers.

Exhibit 12



¹² Beginning with the 2005 study, we separated transportation execution from transportation planning to better identify what dimensions of the transportation management process had been entrusted to the 3PL providers' applications vis-à-vis the users' applications.

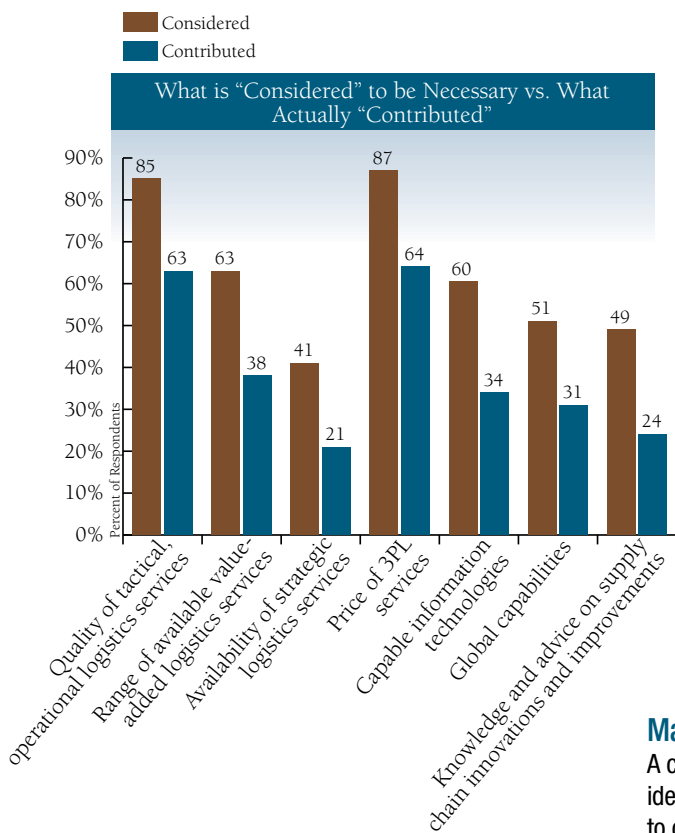
¹³ In the 2005 survey, the reported plans for future use were 17% for transportation planning and 19% for supply chain planning technology.



Management and Relationship Issues

When selecting 3PL providers, this year’s survey respondents as in past years continued rating the price of 3PL services as a key criterion, closely followed by the “quality of tactical, operational logistics services.” But the next several criteria for selecting 3PL providers involve their strategic, versus tactical, offerings. For example, survey respondents rated having a “range of available value-added logistics services” (63%) and “global capabilities” (51%) as somewhat important. But when asked if these same requirements contributed to the respondent’s success in working with a 3PL provider, these two categories dropped in importance (38% and 31%, respectively). Several other criteria had considerable drops in terms of consideration versus contribution (see Exhibit 13).

Exhibit 13



These results raise several questions. First, are 3PL users selecting the correct criteria in their requests for proposals and quotes? Alternatively, are they asking the right questions, but not using the correct baseline to measure the provider’s contribution? Last, are the decision makers selecting the 3PL provider(s) involved in the post-selection evaluation process? Our interaction with customers, both in and outside our ASE sessions, indicates “yes, no, and no.” The criteria are generally a solid set of decision factors (with proper due diligence), but what is typically at fault are both the baseline data used to evaluate success and the handover from procurement to operations after a selection is made.

That said, and as in last year’s survey, the 3PL provider selection process seems based upon an activity-based outsourcing requirement (such as transportation, warehousing, and cross-docking) versus a more holistic view (when a full supply chain is outsourced). The upshot is, as confirmed by our survey, while 3PL customers want their providers to demonstrate a broad set of skills (tactical and strategic), customers still limit many sophisticated 3PL providers from showing their full capabilities. Customers cannot have it both ways; 3PL customers must make strategic decisions about their use of 3PL providers so that both customers and providers can move to the next level of a business relationship—that of a true partnership.

Management of Trust

A consistent theme in our ASE events was that 3PL providers need to anticipate and identify opportunities for improvement—and actively recommend those improvements to customers. Sometimes contracts in place do not stimulate this kind of behavior because such improvements may actually reduce the fees for the 3PL providers. The 3PL users at our ASE events had a positive attitude about this. They said that more active partnering would lead to larger revenues in the long term because 3PL users will gain more trust in allocating more business to that provider. This trust would also lead to the 3PL users’ willingness to include 3PL providers in strategic planning (a strong provider desire) and additional services growth.

However, 3PL providers could still be reluctant to be forthcoming until they are comfortable that the procurement/purchasing relationship has moved from a “cost only” relationship to a “total value” relationship. This total-value perspective is a key stepping stone for 3PL providers to move their relationships with their customers upwards in

strategic orientation. This conclusion is supported by the closeness of the factors that contribute to a successful 3PL provider-user relationship (namely, the all-region response rate for “price of 3PL services” was 64%; for “quality of tactical operational logistics services,” 63%).

ASE and workshop attendees also expressed concern about the ongoing stream of mergers among 3PL providers. Although 3PL users sometimes saw advantages in, for example, an increased geographical coverage, they were worried by the time and effort spent on integrating the acquisitions. Integrating processes, operations, technologies, and even philosophies after a merger are often cumbersome. Users know this from experience. User attendees feel that 3PL providers could do a better job of ensuring that such integrations do not lead to a loss of customer focus.

The Benefits of the Successful Relationship

We believe the future vision of the successful 3PL provider-customer (shipper) relationship lies in both parties are helping each other—“Help me...help you.” Providers can help if customers will let them by letting the providers know more about the customer’s business. Unfortunately, some apprehension still exists in the relationship between the two parties.

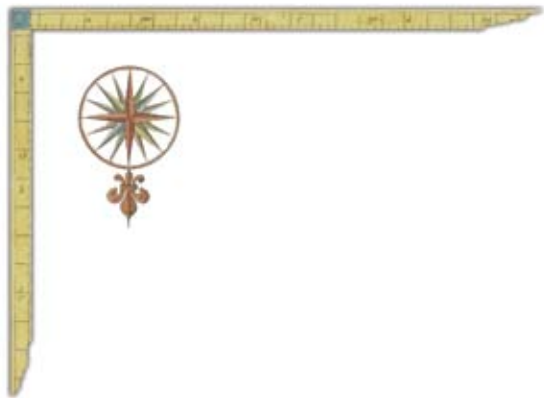
When asked “what expectations do you have of the providers,” survey respondents indicated that 3PL providers should be dynamic, innovative, organized, integrated, consistent, evolving, and broad in their perspective. Additional key areas of the survey confirm this, such as “logistics represents a strategic, competitive advantage to our company” (88% agreement, all regions), “3PL providers provide us with new and innovative ways to improve logistics effectiveness” (58% agreement), and “3PL providers will keep pace with the challenges of global supply chain integration” (56% agreement).

Exhibit 14

The answer to “what expectations do you have of the customer (shipper)” comes from a viewpoint that combines responses from both 3PL users and providers. The responses touched upon partnership, total value, trust, responsiveness, alignment, clarity, and investment. As shown in Exhibit 14, a direct correlation exists between the expectations that both 3PL users and providers identified. We contend that both parties are not so far apart in moving to the next level of 3PL relationship.

Expectation Setting Relative to Relationship Management	
Customer Expectations of 3PL Providers	3PL Provider Expectations of Customers
• Actively anticipates and identifies opportunities	• Lets the provider be a true partner, not just a “relationship” vendor
• Solutions that evolve with the supply chain	• Invest in joint strategic planning
• Trust and open information sharing	• Educate service purchasers on “total value”
• Integrated operations and technologies across regions, countries, and brands	• Trust, communication, flexibility, and responsiveness
• Understands that “relationship” has a broader context in different geographies	• Establish alignment both horizontally and vertically within the company on expectations
• Provides consistent level of superior services	• An auditable baseline that clearly defined service level agreements can be based on

This is not to say that 3PL providers do not face challenges. The continued pressures to reduce costs, increase risk sharing, and provide extended logistics coverage (multicountry) seamlessly while evolving the 3PL provider’s model (acquisitions and core competencies) will continue to keep 3PL providers occupied. On top of that, as stated elsewhere in this report, domestic and emerging markets have similar and unique challenges for both 3PL providers and their customers to deal with.

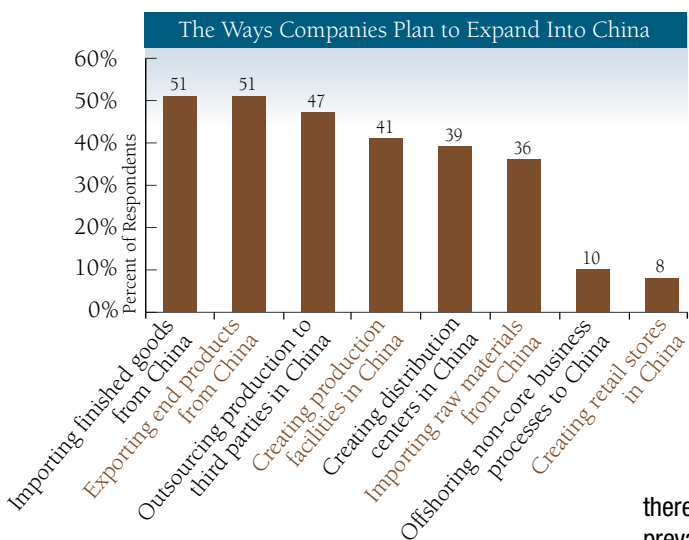


Emerging Markets

Some questions in this year's survey delved into what emerging markets are most popular. The winner: 53% of the respondents indicated that they intend to further expand their activities into China. The runner-up geography: Russia (nearly 17% of the respondents).

Users of 3PL services plan to develop a wide spectrum of activities in China (see Exhibit 15). The most popular of these activities (just over 50% response) are the importing and exporting of finished goods to and from China. These two activities are closely followed by outsourcing production to third parties in China (47%) and creating production facilities (41%). Respondents also indicated high interest in creating distribution centers (39%) and in importing raw material from China (36%). Two activities were clearly less popular: sending non-core IT and administrative activities to China (10%), and creating retail stores (8%).

Exhibit 15



Because opening a new market has numerous challenges, we thought many 3PL user companies would seek the help of their existing 3PL providers when expanding their logistics operations into China. By doing so, 3PL users would not have to solve all the logistics issues. This assumption proved right. A vast majority of the respondents use their current 3PL providers in their expansions to China, while less than 19% of the respondents indicated they would not do that. About 30% of the 3PL users even indicated that they “extremely rely” on their current 3PL provider in these expansions.

The View of Supply Chain Managers in China

We had 82 respondents from China this year. As in the overall survey group, high-tech and electronics respondents from China constituted the biggest industry sector group (a third of all respondents from China). Similar to the rest of the world, the top four logistics services outsourced in China are: transportation, warehousing, custom clearance, and forwarding. However, there are interesting differences. For instance, outsourcing transportation is more prevalent in China (97%, versus 90% for all regions), as well as transportation management (56%, versus 34% for all regions) and fleet management (30%, versus 19% for all regions). In our workshop in Shanghai, attendees debated about the remarkably high figure for transportation management. Attendees agreed that many interpretations exist for what transportation management encompasses. Workshop attendees expressed that this probably caused the unexpectedly high score, and that the reported figure was unlikely to reflect reality in China.

Customs clearance and brokerage is an activity that is clearly more prevalent in China than in the other regions (84%, versus 70% for all regions). This can be explained by two factors. First, the economy in China is based more on large import quantities (in particular, raw materials) and huge exports. Second, as pointed out by the participants in our Shanghai workshop, China's customs rules are enormously complex. Said one workshop attendee, “To do business in China you *must* understand ‘Guan Xi.’ Guan Xi means connections or relationships. In the business world, it means who you know and are connected to. Because there are so many levels of Guan Xi, it helps greatly and cuts through much red tape if you have the right Guan Xi.”

Dealing with customs is recognized as a specialty requiring dedication, extensive knowledge of fast-changing rules, including regional interpretations, and excellent personal relations with the many parties involved. Workshop participants felt that the 84% response rate was low, and that most likely even more companies outsourced this work in China.

Outsourcing cross-docking activities is not prevalent in China (21%, versus 34% for all regions). Attendees in the Shanghai workshop concluded that 3PL providers form an immature and fragmented industry in China; therefore, no transportation and distribution networks exist with country-wide coverage and processes, and IT systems are not reliable enough to allow a more advanced concept like cross-docking, which requires a well-tuned distribution system.

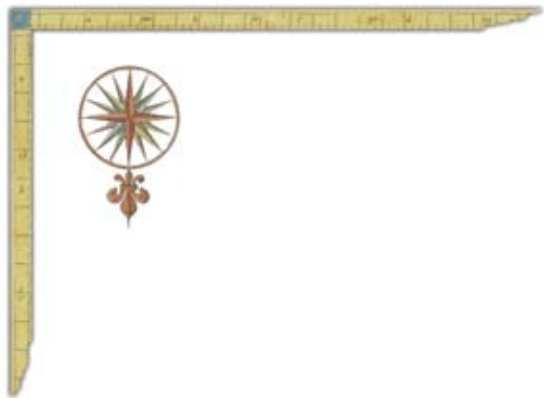
When selecting a 3PL provider, respondents from China rated the quality of tactical, operational logistics services more important than price—a notable difference from the rest of the world. Our Shanghai workshop participants were not surprised, although they did note that this was probably a temporary situation. When over time the overall quality of logistics services comes more in line with the rest of the world, price should become more important.

The importance of price is also reflected in how respondents from China assessed the success of their 3PL providers. Here, China mirrors the score from all regions: Price is number one, closely followed by the quality of tactical services. The lack of continual improvement is considered a bigger problem in China than for the whole group of respondents (60% versus 45%), making this issue the number one concern in China. Overall, respondents in China encountered more problems with 3PL providers. Where 12% of the respondents in all regions indicated that they have no continuing problems, less than 2% of the respondents in China indicated the same. Other problem areas more often indicated by respondents in China than in the rest of the world are: project management skills, IT capabilities, and global capabilities. In our Shanghai workshop, attendees stressed that the business case for using IT is not always obvious because of the low cost of labor. For supply chains, it is however still key to have IT system support at the start of the international sourcing chain, which often starts in emerging countries such as China.

All this discussion notwithstanding, 3PL users in China express a similar satisfaction with their 3PL providers as the rest of the regions in our survey. In our Shanghai workshop, the consensus was that the business environment for supply chain activities in China is “challenging,” so maybe the overall good rating takes these difficult circumstances into consideration.

Obviously, the 3PL industry is still relatively new in China. The learning curve for both users and providers is steep. In China, operations management heavily focuses on personal performance and the relations between individuals; performance is much less driven by standard processes or IT systems. This leaves us with yet another observation: The dynamics of a labor market in the fast-growing economy of an emerging market will make effective people management and retention a key success factor for 3PL providers in China.





Strategic Assessment

Several issues are central to the strategic role 3PL providers play in individual customer organizations and supply chains overall. We base the following commentaries on the 2006 3PL survey, user focus groups, and our awareness of the trends relating to the 3PL sector and the use of 3PL services.

Growth and Consolidation of the 3PL Sector. In recent years, numerous examples of mergers, acquisitions, and consolidation in the 3PL sector have occurred.¹⁴ Typical drivers include regional expansions, broadening service lines, and industry specialization. While there has been an active marketplace for these consolidations, both “strategic” and “financial” buyers have been very much present in some of the bid and negotiation processes that have emerged. This is interesting—even remarkable—considering the mixed profitability of organizations in the 3PL sector. While the frequency of consolidations do not appear to be declining, deal makers should ask themselves whether these consolidations make strategic and economic sense. Senior executives using 3PL services expressed some wariness with the continual change that seems to be occurring in the 3PL sector. Unfortunately, not all users are convinced they are benefiting from these consolidations.

Development of a “Services Portfolio” by 3PL Providers. Users of 3PL services have a great interest in services that are responsive to their supply chain needs. Based on available study results, customers generally perceive a lack of consistency in core services among 3PL providers, both between providers and in what service levels are available from individual 3PL providers across the regions they serve. Although size and geographic coverage are important, so is the consistency of location expertise and global service. Thus, from a user’s perspective, it is not unreasonable to expect 3PL providers to articulate a meaningful services strategy; that is, be explicit about their portfolio of 3PL services that help meet the user’s logistics needs.

Emergence of the “Global 3PL Provider.” Considering both internal growth and growth through acquisition, the pursuit of a global presence is a major objective for many 3PL providers, thus establishing a presence as a “global 3PL provider.” Users are sometimes frustrated with apparent differences in doing business with specific 3PL providers from one region to another. Users also desire having their 3PL providers help capture local benefits, such as low labor costs, thereby helping reduce the net landed cost of their products. While standardized work processes and a cadre of capable international managers is of value to multiregional 3PL providers, these providers should ensure that their services and service management are customized to the regions they operate in.

Customers Need to Develop a “3PL Strategy.” Users still need to develop a strategic plan for using 3PL services and for communicating this “3PL strategy” to top management as part of the logistics/supply chain planning, measurement, and evaluation processes. As discussed in earlier years of this study, continued attention to the distinction between “strategic” and “operational/tactical” service needs is critical.

¹⁴ Prominent examples include DHL and Exel; Kuehne & Nagel and USCO; UPS and Fritz and Menlo Forwarding; Deutsche Bahn and Bax Global; UTi Worldwide and Standard Corporation; and PWC Logistics and Geo-Logistics. There are examples as well of deconsolidation, such as TNT Logistics, where parent organizations desire to sell off logistics business units.

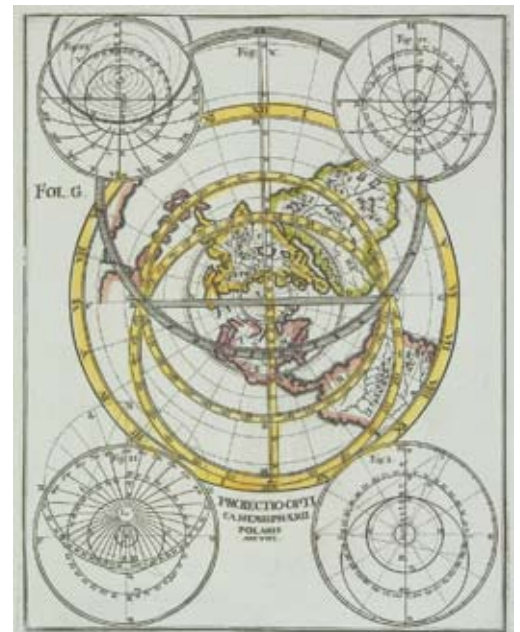
3PL User/Provider Relationships. The objective of many 3PL providers is to move their customers from a conventional customer-supplier relationship to a true partnership. But both 3PL providers and users need to be more aggressive in making this happen. While the importance of repeatable and leveraged solutions is obvious, it is also important for 3PL providers to be somewhat futuristic and to try to help customers identify and solve supply chain problems. Users also need to be more inclusive; that is, they need to share information relating to their strategic direction with their 3PL providers. Both parties need to look at longer-term issues and challenges, instead of inefficiently focusing on short-term concerns. Continued emphasis on customer-needs alignment and solution innovation are needed in most relationships.

RFID and IT. Studies of recent years have confirmed the need for 3PL providers to develop suitable IT capabilities. In fact, users are already pressuring their 3PL providers for increasingly sophisticated IT-based services. One of the technologies expected to become more prevalent is RFID, and there will be continued opportunities for 3PL providers and users to determine how best to use RFID to address logistics and supply chain issues. However, given supply chain dynamics and competitive pressures, there is not much time to figure this all out. Moreover, given that the economics and the applicability of RFID are both in the “introductory” stage of the RFID development lifecycle, a shared investment approach between 3PL providers and their customers is needed.

Future Growth of the 4PL Provider Concept. Perhaps somewhat puzzling is that the 4PL provider concept does not seem to be enjoying significant “marquee” presence as a likely future scenario for logistics outsourcing. This is substantiated by the 2006 3PL survey: Users still focus on the more tactical services instead of the more strategic and IT-focused services. The 3PL providers’ response in such cases, when they are not able to sell up the value chain, is to shift their emphasis to selling more of the current services to the same (or other) customers. The question for the future is whether 3PL users are sufficiently focused on the broader interorganizational and regional issues to make proper use of 4PL provider capabilities.

3PL Creation of Supply Chain Value. Any discussion of “value” must recognize the distinction between short- and long-term decision making. While no one would argue against producing acceptable financial results in the short-term, it is frustrating to see organizations making short-term decisions that compromise the ability to make longer-term progress.¹⁵

As 3PL providers and users improve the quality of their relationships, it will become increasingly important to think of 3PL providers in three related contexts: as a key resource directly to 3PL user organizations, as a key link between supply chain organizations, and as a key to supply chain integration. These highlight the continuing need to understand, measure, and quantify the value of 3PL providers to customer organizations, supply chain organizations, and the overall supply chains.

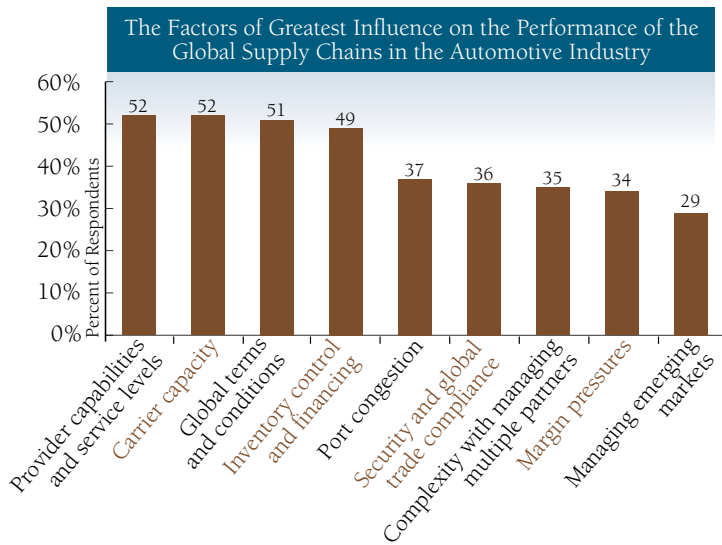


¹⁵ Examples include the proclivity of shippers to sometimes conduct unnecessary “re-bidding” exercises to provide validation so that 3PL provider selection continues to be appropriate, “scope creep” and unjustified pressures placed on 3PL providers to lower prices, and conversion of outsourcing to “insourcing” to take advantage of one-time savings that are intended to enhance the appearance of short-term financial results.

Industry Sector Focus: Automotive

The automotive industry continues to face several challenges in 2006 (see Exhibit 16). To mitigate some of these—specifically, to reduce operating costs, enhance flexibility, and improve service levels—88% of the automotive industry respondents surveyed use 3PL services, a figure that has remained consistent for several years in this survey.

Exhibit 16



In general, automotive users tend to outsource more 3PL services, direct a larger percent of their logistics expenditures to outsourcing, and rely on 3PL providers more for transportation management technology compared to other industries. Transportation, shipment consolidation, cross-docking, and LLP services were noticeably higher than other industries with an 11% average increase across all services.

Automotive users outsource 60% of their logistics expenditures, five percentage points higher than the overall industry average. The most commonly outsourced logistics activities are transportation (99%), customs clearance (73%), warehousing (65%), shipment consolidation (60%), and freight forwarding (55%). Moreover, automotive users rely on their 3PL provider's transportation planning and execution technology 16% more of the time than other sectors. The most common technology-based services for automotive respondents are transportation execution (79%), visibility (64%), warehouse management (61%), web portal communications (60%), and transportation planning (53%).

The role of 3PL providers in subassembly, sequencing, packaging, and line-side inventory functions is inconsistent. Nearly half of the respondents use some 3PL services; however, coordination is manual, or the outsourced services typically include sequencing or packaging services versus subassembly or line-side delivery. Only 10%

of the respondents outsourced a majority of these activities. Another 12% do not outsource these functions today, but are considering doing so in the future. Exhibit 17 highlights the top three current and future automotive logistics initiatives.

Recent events, such as hurricane Katrina, acts of terrorism, offshore sourcing, and labor disputes have placed greater focus on contingency planning. Approximately 30% of the respondents have some contingency plans and rely on their carriers to initiate plans; 23% have contingency plans for select commodities and rely on vehicle manufacturers to trigger corrective action; and 17% do not have any contingency plans.

In several areas, 3PL providers have opportunities to develop and improve service offerings and customer satisfaction programs, addressing both existing and untapped demand in the automotive sector. Failure to accommodate such automotive requirements may cause vehicle manufacturers and suppliers to look elsewhere or to build logistics capabilities themselves.

Exhibit 17

Current and Future Automotive Logistics Initiatives				
	Current		Future	
Service Parts Management	Dedicated delivery service to dealers from parts distribution centers	60%	Retail channel distribution	63%
	Dealer-managed inventory replenishment	42%	Packaging design, outsourcing, and ownership	50%
	Parts distribution center outsourcing programs	41%	Dealer-managed inventory replenishment	49%
Returnable Container Programs	Increase use for inbound-to-manufacturing	46%	Radio frequency identification initiatives	75%
	Outsource tracking and management	27%	Outsourcing returnable container design	61%
	Outsource ownership of assets	24%	Increase use for inbound-to-manufacturing	36%
Order-to-Delivery Cycle Times	Build-to-order	61%	Demand management and analysis	63%
	Dynamic available-to-promise	54%	Locate-to-order	47%
	Vehicle identification number tracking	48%	Postponement or late configuration	44%

Industry Sector Focus: Chemical

The chemical, especially petrochemical, industry supply chains face significant challenges in 2006 (see Exhibit 18). Skyrocketing feedstock costs, geopolitical instability in supply areas, and increased focus on terror and security threats are a given. Additionally, this year, business continuity plans are being rewritten (and acted upon) based on last year's hurricane season effects on the US gulf coast chemical heartland. Of course, globalization trends are key supply chain drivers as new production capacity comes on line in lower-cost parts of the world. And, as large, multinational firms, these chemical manufacturers are looking for their 3PL providers to help them achieve improved cost and service positions.

Exhibit 18

Chemical survey respondents were first asked to consider the top factors influencing global supply chain operations. The overall highest rated selection, "3PL provider capabilities and service levels," points out that the industry is still attuned to quality of service. The selection that received the most number one mentions was "security and global trade compliance." Over 37% of all respondents selected one of these two factors as the most significant. This pattern suggests a clear message: Breadth of service and geographic coverage are both important. These were the highest two factors in North America responses, however security and global trade compliance was identified as the number one priority, pushing this to over 50% when compared to all regions.

Another survey question focused on the risk of oil supplies from the Middle East and mitigation plans petrochemical producers have in place. Responses indicated that almost half have a coordinated plan in place but, of that group, about 85% are controlling the contingency triggers themselves versus the 3PL providers or trading partners. The message seems to be: Petrochemical manufacturers have not partnered strategically to the point of allowing key decisions to be made by other parties.

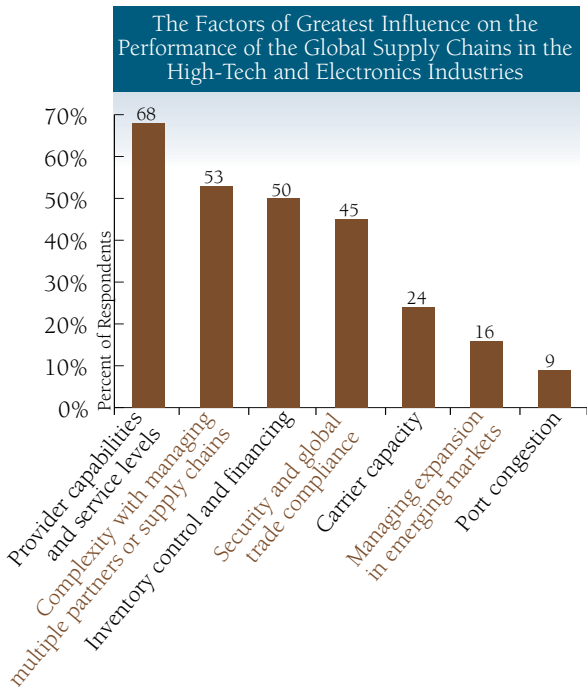
The last question to this industry sector asked about using 3PL providers in new global markets. The use of 3PL providers in emerging chemical markets was 2.5 times more likely than not. This points out that chemical companies are expecting 3PL providers to help set up supply chains in less familiar surroundings. Again, those 3PL providers with greater solution breadth and geographic coverage were better positioned to respond to globalization trends.

The summary message is a mix of historically accurate and ground-breaking trends in the chemical supply chain. Chemical manufacturers still value quality of service and want to control critical decisions even as they adapt to a global marketplace. However, they are increasingly turning to 3PL providers to help them extend their reach into new markets and manage the complexity that global commerce presents. The trends of security regulation, natural disaster planning, and Middle East instability point to an increased role for well-positioned providers.

The Top Five Factors Influencing the Performance of Global Supply Chain Operations in the Chemical Industry

- Provider capabilities and service levels
- Inventory control and financing
- Security and global trade compliance
- Complexity with managing multiple partners or supply chains
- Carrier capacity

Exhibit 19



Industry Sector Focus: High-Tech and Electronics

High-tech and electronics industries are using the supply chain to help mitigate some of the global pressures these industries face in manufacturing, supply chain, and competition. For instance, China, Mexico, Eastern Europe, and India in recent years have become major manufacturing centers. In this year’s survey, 65% of the respondents from high-tech and electronics say they plan to expand their operations into China; 49% plan to expand into Russia.

However, a global reach in logistics comes with an increase in partners and players—manufacturer, contract manufacturers, and 3PL providers—and with that comes complexity, added costs, and, counterintuitively, less visibility into the overall supply chain. While expanding operations to China and Russia have provided some cost reductions in manufacturing, logistics and warehousing costs continue to grow at an alarming rate—increasing the cost of goods sold. At some point, high-tech and electronics firms will need to determine whether operating nearer to their end-customers will be economically better.

High-tech and electronics are the industries with the highest percentage (65%) of current logistics expenditures directed to outsourcing services, such as assembly, sequencing, and packaging. Over the years, 3PL providers have been focusing on better managing the dynamic supply chains in high-tech and electronics. The complexity of these supply chains is driving the need for enhanced IT—one that can integrate all the players and pieces, as well as provide the information vital throughout the supply chains. Notably, 53% of the high-tech and electronics respondents named “complexity with managing multiple partners or supply chains” as one of the top three factors of greatest influence in the performance of their supply chain operations (see Exhibit 19). At the same time, high-tech and electronics companies, especially the global firms, have been developing strategic partnerships with fewer 3PL providers. In fact, 26% of the respondents are considering moving from 3PL to LLP/4PL providers. These consolidations help minimize infrastructure costs, yet allow for rapid change.

This convergence of 3PL provider capabilities and user-provider partnerships has led 3PL users to consider two options. They can buy the IT to support their logistics, but then they have all the responsibilities of maintaining the IT infrastructure, entering data, integrating with 3PL provider systems, and more. Unaddressed is the process consistency to ensure fast and stable IT startups at the 3PL user’s global sites.

Alternatively, 3PL user firms can outsource their IT to a 3PL provider. The 3PL providers already own the IT infrastructure, the logistics software, and the ability to leverage IT costs across multiple clients. They also have the business knowledge that covers both logistics and the application of IT to logistics. Outsourcing IT logistics limits the expenses associated with moving user operations and the required IT start-up time and integration. Such outsourcing also applies consistency in the logistics IT systems and processes, which in the long run satisfies yet another objective of global high-tech and electronics firms: fewer supply chain players to manage.

Industry Sector Focus: Life Sciences and Healthcare

The life sciences and healthcare industries have increasing needs for outsourcing not only to keep up with their high growth, but also, as our survey this year indicates, to keep up with these industries' increasing appetite for outsourcing. However, these industries still trail far behind most other industry sectors in using 3PL providers.

Life sciences and healthcare have a higher-than-average focus on core 3PL services: transportation, warehousing, and customs clearance and brokerage. Not surprisingly, these industry sectors pay particular attention to quality, placing the “quality of tactical, operational logistics services” first when selecting 3PL providers (92% of respondents in these industries). The second most-important criterion, “price of 3PL services” (89%), ranked first in the combined responses from all industries. The next two important criteria, “geographic presence in required regions” and “expected capability to improve services levels,” were favored somewhat more in the life sciences and healthcare industries than all the industries combined (3% more and 9% more, respectively).

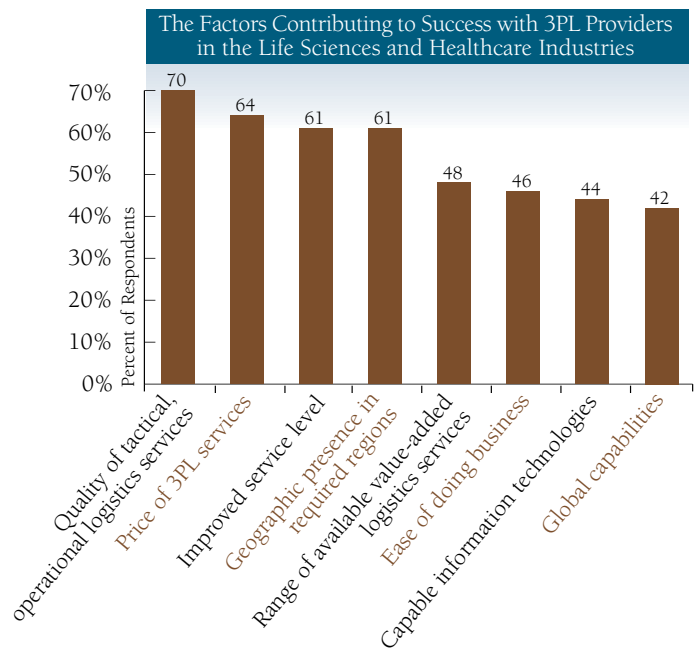
The benefits that life sciences and healthcare experience using 3PL providers compares favorably with the combined experience of all industries in our survey, except in the reduction of fixed logistics asset—a 15% reduction versus a 20% reduction. This result probably reflects these sectors' focus on outsourcing traditional core services. (The other benefits: an 11% reduction in logistics costs versus 12% for all industries, and a 30% reduction in average order cycle time versus 24% for all industries.)

These industries' focus on quality shows up in what contributed to the success 3PL users have experienced with 3PL providers (see Exhibit 20): “quality of tactical, operational logistics services (70% versus 63% for all industries) and “improved services levels” (61% versus 51% for all industries). As with all the other industries combined, 3PL provider “service level commitment not realized” and “lack of continuous, ongoing improvements and achievements in offerings” are by far the most significant problems facing the life sciences and healthcare industries.

These industries clearly agree that “IT capabilities are a necessary element of overall 3PL provider expertise” (97%). These sectors (56%) also agree that their “3PL firms are able to provide visibility into [user's] key processes” (such as warehouse and transportation management). The percentage of respondents in the life sciences and healthcare industries contracting LLP/4PL providers is significantly lower than the average for all industries (5% versus 15%, respectively), but about the same in considering the move to LLP/4PL providers (17% versus 19%, respectively).

China is clearly an emerging market in these industries. However, these sectors' emphasis on what business activities to expand differ from that of all the industries combined. The respondents in life sciences and healthcare indicated a major focus on taking advantage of the market potential in China by exporting end products there, and less of a focus on importing finished goods from China (respectively, 15% higher and 14% lower than the average of all industries).

Exhibit 20





Appendix: Capgemini Accelerated Solutions Environment (ASE) Sessions and Workshop

Insights for this report about the emerging trends in logistics, including assistance in interpreting survey data, also came from two types of user focus groups. Capgemini's ASE combines creative work spaces, a highly trained facilitation team, and a proprietary process and methodology that help accelerate business decision-making and create innovative solutions. ASE sessions were conducted in Chicago, IL, and in Paris, France, and an Asia-Pacific client workshop was held in Shanghai, China.

Dr. John Langley, Capgemini, DHL, and SAP all want to thank the companies and representatives for their participation in these focus groups. The enthusiasm, insight, and interpretation of the results by all the participants were greatly appreciated in helping with this 11th annual 3PL survey and report.

North American ASE Participants

Kevin Gaydar	Manager, Global Transportation	Abbott Laboratories
Dennis A. Robertson	ML&T Manager, Support General Manager	Caterpillar Logistics Services, Inc.
Ron Smart	Director, Global Logistics	Colgate-Palmolive Company
David S. Graham	Manager, Supply Chain Management/World Wide Logistics	Deere & Company
David A. Panjwani	Manager, International Logistics	Deere & Company
Jerry Burgoni	Director, Supply Chain Management	MAN Roland Inc. North America
Alexander Kentfield	Director of Logistics	Siemens Building Technologies, Inc.
Charice Shianna	Logistics Specialist, Machine Tool Business Unit	Siemens Energy & Automation, Inc.
Allison Mitchell	Manager, Distribution Operations	Starbucks Coffee Company
Bennie Ezzell	Procurement Manager	TXU Business Services

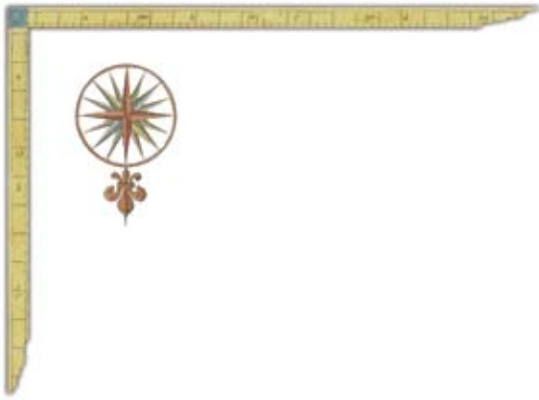
European ASE Participants

Omer Denturck	Transport Manager Europe	3M Europe SA/NV
Pascale Le Guen	Logistics Director	Alcatel
Joseph Peterle	Vice-President Purchasing	Alcatel
Rik Verschoot	European Logistics Manager	Alcatel
Marco van Duijnhoven	Senior Manager, Service Supply Chain Delivery	Cisco
Walter Enz	Director, Logistics Emerson Process	Emerson
Angelica Asplund	Commodity Manager	SCB
Alan Bridges	Infrastructure Services Manager	SCB
Michel Jacquot	Carrier Logistics Director	UTC
Jan Salewski	Commodity Transportation & Logistics Manager	UTC



Asia-Pacific Workshop Session Participants

James Lee	Managing Director	Chubb China Ltd
Sean Zhong	General Manager (Operations) Greater China	Caterpillar Logistics
Wojtek Wojcik	Ocean Freight & Logistics Systems Specialist	Delphi Automotive Systems
Carrie Zhang	Logistics Manager Asia Pacific	Delphi Automotive Systems
Tony Xia	Senior Logistics Manager	Emerson
David Lu	Vendor Management & Customs Affairs Department Manager	Ericsson (China) Communications Company Ltd
Allan Ngam	Head of Trade Operations for HSBC China	HSBC
Lena Zou	Senior Executive	Infineon Technologies China Co Ltd
Byron Ba	GCL Manager, Greater China Logistics Department	Intel
Ma Limin	3PL Operations Supervisor	Intel
Shirley Shao	3PL Manager, Greater China Logistics Department	Intel
Clark Wang	Supervisor, Supply Chain Department	Johnson & Johnson Medical (China)
George Han	Trade Management Consultant	JPMorgan Chase Vastera
Ruirong Shi	Senior Trade Consultant	JPMorgan Chase Vastera
Jiwei Ye	Head of Managed Service	JPMorgan Chase Vastera
Jim Ma	Integrated Logistics Manager	Kodak (China) Investment Company Ltd
Kimmo Haukilehto	Director, Integrated Logistics Delivery Service	Nokia
Rosey Yip	Market Manager, Non-Production Purchases	Schneider Electric Business Solutions Hong Kong Ltd
Liu Feng	Division Vice President	Siemens
Gang Wang	Logistics Project Manager	Vector
Wang Ying	Business Development and Contracting Manager	Volvo Logistics East Asia
Nancy So	Director, GFI Payment Services, Greater China Region	Wachovia Bank
Annie Wang	Associate, Global Financial Institutions	Wachovia Bank



Authors and Sponsors

C. John Langley Jr., The Supply Chain and Logistics Institute Professor of Supply Chain Management and a member of the faculty of the School of Industrial and Systems Engineering

Georgia Institute of Technology

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Tony Ross, Americas Logistics & Fulfillment, Co-Lead***

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Contact Information

For additional copies of this publication or for more information about the study, contact:

C. John Langley Jr., Ph.D.
Professor of Supply Chain Management
Georgia Institute of Technology
765 Ferst Drive, N.W.
Atlanta, GA 30332-0205
United States of America
Phone: +1 404 894 6523
Fax: +1 413 556 3570
JLangley@gatech.edu

Erik van Dort
Global Sector Leader, Distribution
Capgemini
P.O. Box 2575, 3500 GN Utrecht
The Netherlands
Phone: +31 30 689 7119
Mobile: +31 651 42 97 32
Fax: +31 30 689 9527
Erik.van.Dort@capgemini.com

Tony Ross
Americas Logistics & Fulfillment, Co-Lead
Capgemini LLC, NA
Suite 600, 7701 Las Colinas Ridge
Irving, Texas 75063
United States of America
Phone: +1 972 556 7486
Mobile: +1 214 697 0965
Fax: +1 972 556 7005
Tony.Ross@capgemini.com

Ulrik Topp
Global Head of Marketing Services
DHL Global Customer Solutions
De Kleetlaan 1
B-1831 Diegem
Belgium
Phone: +32 2 713 4855
Fax: +32 2 713 5108
Email: Ulrik.Topp@dhl.com

Scott R. Sykes
Principal
SAP Americas, Inc.
1157 Elrond Drive
Charlotte, NC 28269
United States of America
Phone: +1 704 766 0147
Mobile: +1 704 491 7442
Scott.Sykes@sap.com

Rodney Strata
Principal
SAP Americas, Inc.
44 LaSalle Court SE
North Canton, OH 44709
United States of America
Phone: +1 330 244 1688
Mobile: +1 330 564 3687
Rodney.Strata@sap.com

Till Dengel
Solution Manager, Logistics Service Providers
SAP AG
Neurottstrasse 16
69190 Walldorf
Germany
Phone: +49 6227 7 68642
Mobile: +49 171 3085040
Till.Dengel@sap.com



