

by

Leticia Costa
costa_leticia@bah.com

Luiz Vieira
vieira_luiz@bah.com

Paulo Fernando Fleury
fleury@coppead.ufrj.br

Contract Logistics In Brazil

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The amount spent on logistics activities in Brazil exceeds the gross domestic products of several Latin American countries, but outsourcing of logistics services to scale-advantaged third-party providers is just gaining momentum. Limited at the moment to primarily basic transportation and warehousing services, the contract logistics market in Brazil will expand substantially in the next three to five years as providers either focus on operational excellence or develop a portfolio of integrated solutions.

While largely confined to transportation and warehousing services at the moment, contract logistics is an emerging industry in Brazil with significant prospects for both users and third-party providers. Although the barriers to increased efficiency and sophistication are significant, we see the market developing substantially in the next three to five years as a result of the strides being made today by existing and new third-party logistics providers.

Based on an extensive survey Booz Allen Hamilton conducted in conjunction with CEL/COPPEAD, a leading center for logistics training and research, we used cluster analysis to segment the logistics providers community in Brazil into six clusters and characterized the unique challenges and opportunities for growth that accompany each. Our research also demonstrated that these six clusters are slowly coalescing into two categories — logistics providers focused on *operational excellence* and those focused on *integrated solutions*. The key findings are discussed in the next several

pages, as are our views about how the industry will develop and what factors will contribute most to various companies' successes.

It is already clear that the winners will be those who are well capitalized and make key investments in people and technology. To compete effectively, third-party logistics providers in the Operational Excellence category will need to demonstrate their cost effectiveness and superior basic capabilities; while Integrated Solutions providers will need to be more proactive in building alliances, utilizing information technology, and developing a complete and sophisticated range of services.

The Logistics Market in Brazil

The amount spent on logistics activities in Brazil exceeds the gross domestic products of several countries, including Chile, Bolivia, and Portugal. According to a recent World Bank study, transportation alone accounts for nearly 10 percent of Brazilian GDP — more than US \$50 billion in 1999. That figure does not include other logistics costs such as administration, warehousing, and inventory.

It is not surprising, therefore, that contract logistics (i.e., companies engaging third-party providers to perform functions previously performed in-house) is a burgeoning industry in Brazil. A rash of so-called logistics services providers has surfaced in recent years, offering a range of services, including transportation, warehousing, and basic distribution center management.

Because contract logistics is still an emerging industry in Brazil, service offerings continue to be fairly

rudimentary, encompassing basic transportation and warehousing for the most part, but more value-added services are slowly starting to appear. There is still considerable room for third-party logistics providers to expand their portfolio of services into areas such as distribution center design, integrated logistics management, or even inventory management, as these services are not yet offered to manufacturers and/or retailers.

In response to market demand, several domestic carriers and warehouse operators are broadening their logistics services menu to include a wider range of industries and parts of the supply chain. Meanwhile, established international players are gaining a foothold in the Brazilian market through acquisitions, joint ventures, greenfield efforts, or simple takeovers of clients' logistics operations. As providers seek to support the sourcing, manufacturing, and distribution requirements of their customers, they are moving up the logistics services pyramid (see Exhibit 1).

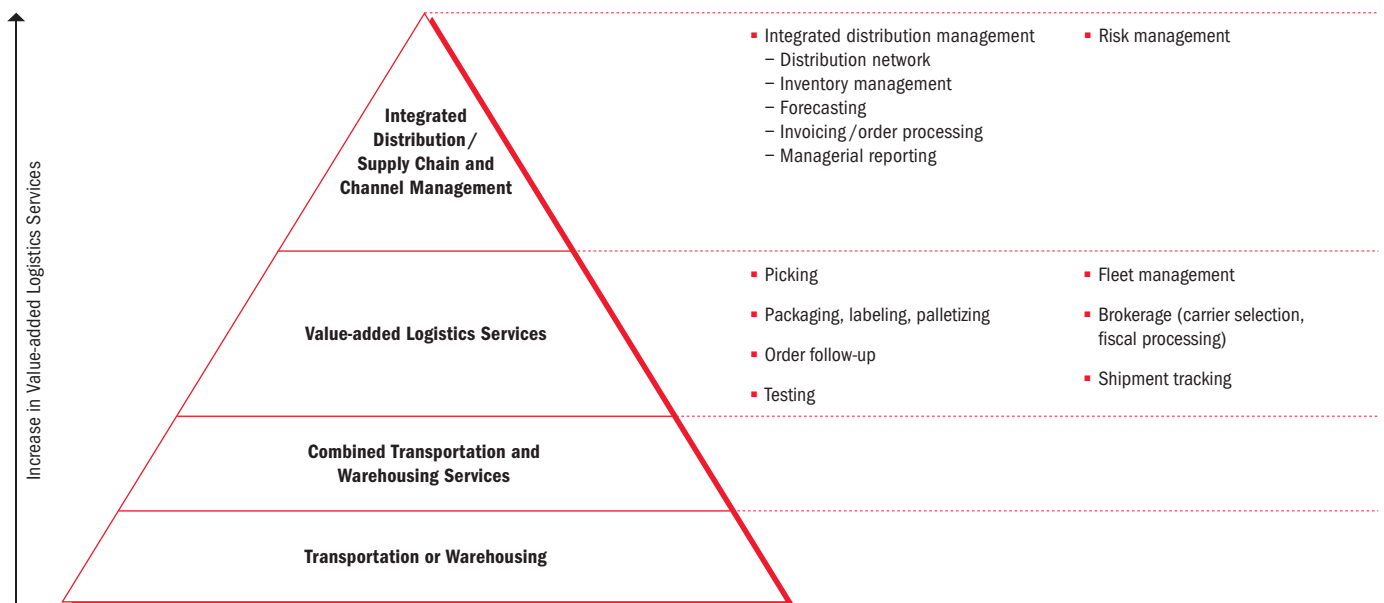
Meanwhile, their manufacturing and retail customers are becoming more amenable to the idea of outsourcing logistics activities. The market deregulation of the early 1990s has resulted in a more stable and efficient competitive environment, in which free market forces

compel companies to be more rigorous in accounting for their performance and cost drivers. If a third-party provider can illuminate logistics costs — while also, in most cases, lowering them — then manufacturers and retailers are increasingly receptive. They can now focus on their core businesses (see Exhibit 2).

There is still considerable room for third-party logistics providers to expand their portfolio of services.

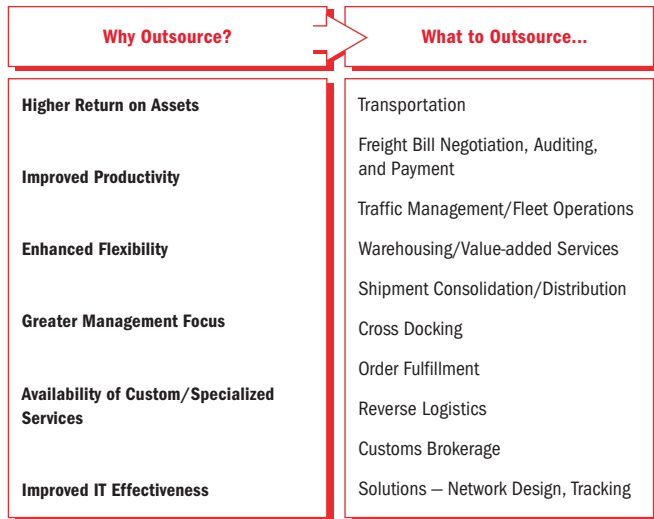
Another significant factor driving increased outsourcing is the wave of merger and acquisition activity that has overtaken Brazil, especially in the retail and consumer packaged goods industries. As companies have consolidated operations, they have identified redundant warehouses and distribution facilities, as well as non-value-adding processes and functions. As these companies analyze and integrate their operations after a merger, they have discovered the advantages of logistics outsourcing, often assigning the responsibility for investments to reconfigure logistics-related assets to contract providers.

Exhibit 1
Logistics Services Pyramid



Source: Booz Allen Hamilton

Exhibit 2
Reasons to Outsource



Source: Booz Allen Hamilton

In summary, the contract logistics market in Brazil is both significant and growing, with the pace of growth likely to accelerate in the coming years.

Barriers to Contract Logistics Market Development

While progress has been made in realizing the tremendous promise of logistics outsourcing, the barriers to further market development are considerable. They include (see Exhibit 3):

- Regulatory issues
- Infrastructure “roadblocks”
- “Cultural” differences
- Insufficient human resources

Regulatory Issues

The current tax differences that exist between regions and states in Brazil can significantly distort the economics of logistics planning, driving such decisions as where to place logistics facilities and how to route deliveries. Without these distortions, service providers could design far more efficient distribution networks and logistics solutions; this might represent a significant opportunity since tax reform is expected.

The regulation on multimodal transport has fallen short of full implementation, so providers are still incurring additional costs and risks as they transfer

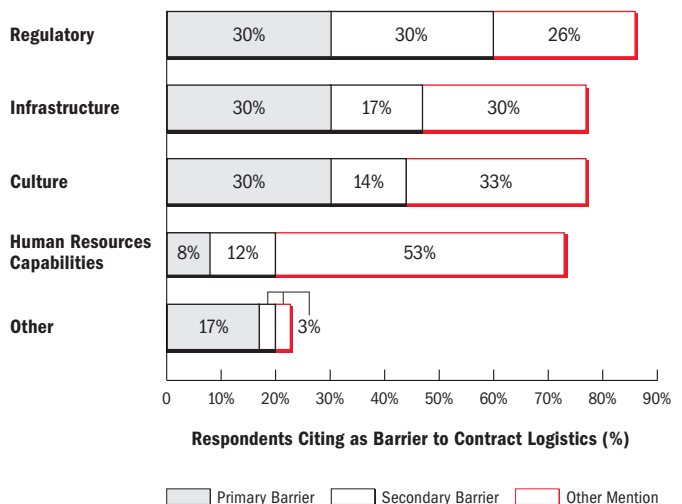
cargo from truck to ship/barge to rail car. In short, the complexity of the Brazilian fiscal and regulatory system has led to suboptimal logistics decisions (e.g., forcing further traffic onto crowded highways as trucks follow circuitous routes).

Infrastructure Roadblocks

Brazil’s transportation infrastructure is currently characterized more by missing links and bottlenecks than by efficient flows. The scarcity of well-functioning railways and waterways imposes an extra-heavy burden on the highway system. The absence of intermodal integration facilities, such as transshipment terminals, only exacerbates this problem. Bottlenecks arise as highways and railroads reach their capacity constraints; consequently some demand remains unmet. Poor highway conditions and cargo theft keep some users from outsourcing, since they believe external service providers would not be as concerned with the integrity of the cargo. Some third-party providers, though, have now turned this concern to their advantage and are bundling risk management capabilities into their service offering.

The infrastructure deficit in Brazil is so significant, particularly in terms of storage, that manufacturers and retailers often have to patch together logistics solutions on a spot basis. This continuing inconvenience and

Exhibit 3
Barriers to Contract Logistics Market Development



Note: Percentage of responses to survey question, “List major barriers to contract logistics” (N=67)
Source: 2001 Booz Allen Hamilton, CEL/COPPEAD Brazil Contract Logistics Survey

resource drain represent an opportunity for third-party logistics services providers. In bridging these infrastructure gaps, however, it's critical that third-party providers

The complexity of the Brazilian fiscal and regulatory system has led to suboptimal logistics decisions.

control the assets involved (e.g., trucks, warehouses). In addition to owning assets, they may also contract capacity or operate clients' assets.

It is not surprising that an important selection criterion in this marketplace is effective control and/or ownership of assets. If third-party providers can demonstrate that they have dedicated access to physical facilities and transportation equipment, they effectively convey the ability to provide needed capacity over the short- and long-term, a critical competitive differentiator.

Cultural Differences

Generally speaking, manufacturers and retailers in Brazil believe that they know best when it comes to moving inventory through their supply chain. They feel they have the industry knowledge, the demographic data, and the experience in demand forecasting to get the products customers need to them at the right time.

Many potential outsourcers have trouble recognizing the value that a third party can add in managing their logistics. Furthermore, the notion of sharing information in a collaborative context is unsettling; the fear persists that such information can be leaked to competitors. This prejudice is starting to ebb, however, as logistics providers gain skill and prove their worth. Prospective clients are gradually recognizing that contract logistics providers can capture superior efficiencies through scale and provide a better quality of service at lower cost.

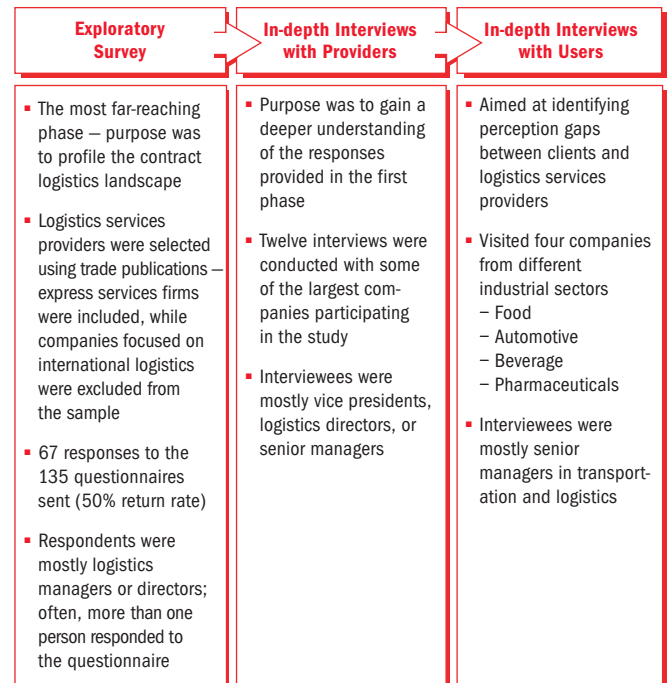
Insufficient Human Resources

Perhaps the greatest long-term challenge to the development of contract logistics in Brazil is the shortage of qualified talent — on both the supply and demand side. Expertise in integrated logistics management is a rare skill, so many companies resort to poaching talent, which vitiates the market and limits the generation of fresh ideas. Training resources in this area are still very limited, and only a few companies have focused on developing qualified personnel.

Joint Booz Allen and CEL/COPPEAD Survey

In February 2001 Booz Allen and CEL/COPPEAD jointly completed an exhaustive study of the contract logistics market in Brazil. We surveyed 67 of the largest service providers, based on annual sales volume, and followed up on those questionnaires with in-depth interviews with 12 of the largest players. In addition, we interviewed current users of logistics services to understand their perceptions of the market and how it is evolving (see Exhibit 4).

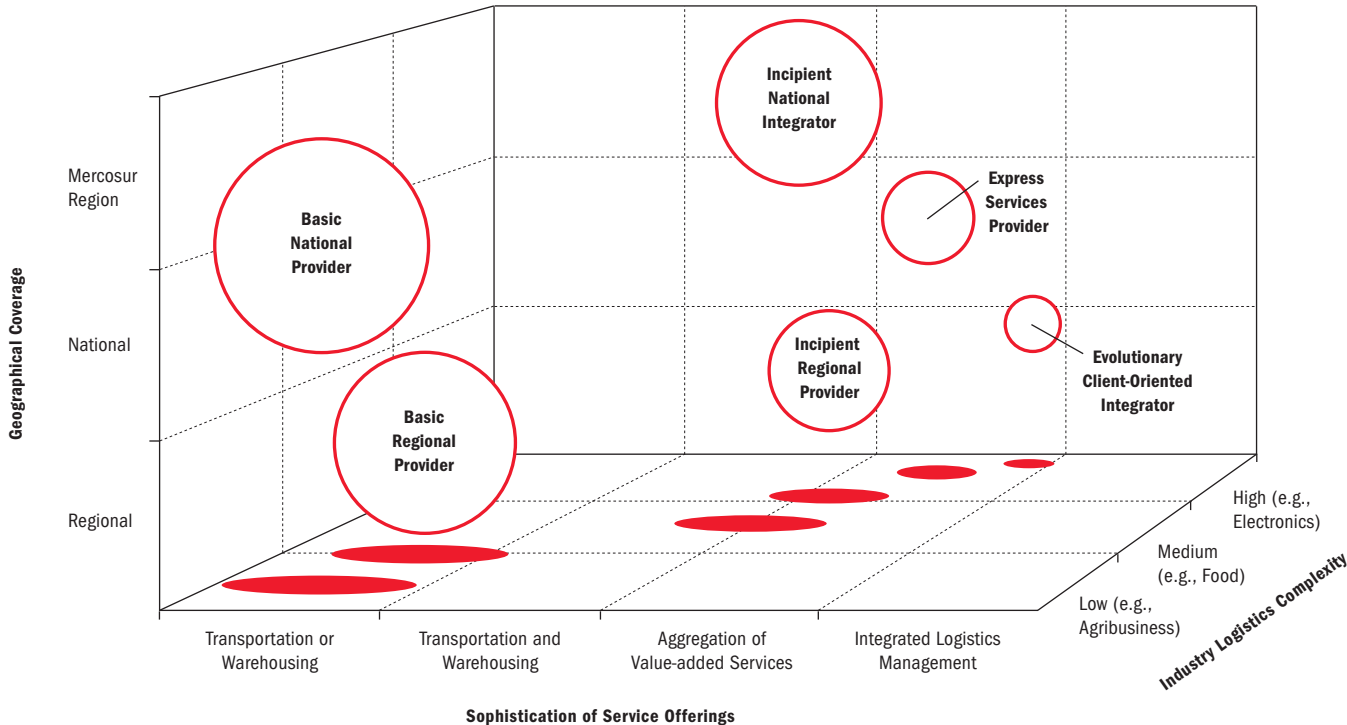
Exhibit 4 Research Methodology



Source: 2001 Booz Allen Hamilton, CEL/COPPEAD Brazil Contract Logistics Survey

Exhibit 5

Logistics Services Providers Market Segmentation



Source: Booz Allen Hamilton

Our aim was to clear up the current misperceptions of logistics outsourcing held by both users and providers by gaining and sharing insights on the marketplace (e.g., how it is currently segmented, what services are being provided to whom).

In relaying our findings, we will cite several of the providers we surveyed. These references are meant to serve as examples only, not as recommendations.

Market Segmentation

Third-party logistics services providers are anything but homogenous. They differ in the services they offer, the industries they serve, and the geographies they cover. So the first step in evaluating our survey findings was to segment the market. We conducted a cluster analysis, grouping companies by their similarities along three dimensions: (1) geographic coverage; (2) sophistication of service offerings; and (3) logistical complexity of

industries served based on number of stock keeping units (SKUs) handled, value per kilogram, participation of truckload (TL) and less-than-truckload (LTL) shipments, and special handling/warehousing requirements. Exhibit 5 shows the six market segments that emerged.

Prospective clients are gradually recognizing that contract logistics providers can capture superior efficiencies through scale and provide a better quality of service at lower cost.

The accompanying table (see Exhibit 6) describes the six clusters in more detail. As Exhibit 6 demonstrates, there is no “one size fits all” solution to logistics outsourcing in the Brazilian market.

Exhibit 6

Logistics Services Providers Market Segmentation

	Basic National Providers	Basic Regional Providers	Incipient National Integrators	Incipient Regional Integrators	Express Services Providers	Evolutionary Client-oriented Integrators
General Description	<p>National providers of basic transportation and warehousing – began as regional player with one basic service and expanded nationally</p> <p>Strive for operational excellence</p> <p>Growing slowly and organically</p>	<p>Regional providers of basic transportation and warehousing – regional scope allows to serve geographically concentrated industries, organize backhauls, leverage location-specific tax benefits, and establish differentiation</p> <p>Strive for operational excellence</p>	<p>National providers of integrated logistics services – typically cover major part of the country, often the entire Mercosur region</p> <p>Slowly expanding beyond basic transportation</p>	<p>Regional providers of integrated logistics services – usually cover Southeast region plus another region, with some including the Mercosur region</p> <p>Generally began in information technology field or in customs clearance, then added logistics capabilities</p>	<p>Airlines or courier services that have added more logistics services</p> <p>Generally national coverage, leveraging the post office's reach</p> <p>Huge emphasis on IT and service reliability</p> <p>Segment being transformed by mergers and acquisitions</p>	<p>Offer high value-added services – intended to be a one-stop shop for customers</p> <p>Generally backed/ owned by an international brand</p> <p>Concentrated in South/Southeast regions and some also serve Mercosur – linked to industries served</p> <p>Global expansion at customer's request</p>
Size/Revenues	<p>One of largest segments</p> <p>Highly fragmented</p> <p>Annual revenues from a few thousand \$US to hundreds of millions</p>	<p>Largest segment</p> <p>Highly fragmented</p> <p>Annual revenues from a few thousand \$US to millions a year</p>	<p>Annual revenues from a few thousand \$US to hundreds of millions</p>	<p>Annual revenues from a few thousand \$US to hundreds of millions</p>	<p>Annual revenues from a few thousand \$US to hundreds of millions</p>	<p>Smallest segment based on total revenues</p> <p>Annual sales exceed R\$50 million for most companies</p>
Service Mix/ Industries Served	<p>Transportation and/or warehousing – do not plan to offer complex logistics services</p> <p>Serve basic industries and integrated logistics providers</p>	<p>Transportation and/or warehousing</p> <p>Sometimes higher value-added service on very small scale</p> <p>Serve industries of varying logistical complexity and integrated logistics providers</p>	<p>Increasing number and value of services offered</p> <p>Portfolio generally includes transportation, warehousing, and a few value-added services</p> <p>No particular industry focus</p>	<p>Portfolio generally includes transportation, warehousing, and a few value-added services</p> <p>Full logistical solutions for medium complexity industries</p> <p>No particular industry focus</p>	<p>Provide express transportation, sometimes combined with high value-added services (e.g., picking, packaging, labeling, order follow-up, shipment tracking)</p>	<p>Generally develop customized logistics solution, which they design, implement, and operate</p> <p>Do not operate with commodities and basic industries</p>
Client Relationship/ Pricing	<p>Generally spot contracts based on price tables</p> <p>Few cases of agreement on performance targets</p>	<p>Generally spot contracts based on price table</p> <p>Few cases of agreement on performance targets for basic services</p>	<p>Starting to present logistics projects to clients but still largely reactive</p> <p>Generally long-term contracts (1-3 years)</p> <p>Highly concentrated client base</p> <p>Contracts still largely based on price tables but some cost commissions</p>	<p>Contracts typically exceeding 3 years</p> <p>Contracts largely based on price tables, some on cost commissions and risk contracts</p> <p>Client base not as concentrated as with national counterparts</p>	<p>Short-term agreements on a spot basis</p> <p>Specific transaction charges based on price table</p> <p>Just a few arrangements are cost plus performance incentive</p>	<p>Intense interactions and information exchange, especially with multinational clients</p> <p>Long-term contracts (3 years and up)</p> <p>Specific transaction charges based on price tables, plus some cost plus performance bonus and gain-sharing</p>

Source: Booz Allen Hamilton

Exhibit 6
(Continued)

	Basic National Providers	Basic Regional Providers	Incipient National Integrators	Incipient Regional Integrators	Express Services Providers	Evolutionary Client-oriented Integrators
Use of Alliances	To increase geographic coverage, gain scale, and access alternative modes of transport	To increase geographic coverage and access alternative modes of transport	To increase geographic coverage, scope of service offerings, and efficiency	To increase geographic coverage, scope of service offerings, and efficiency	To increase geographic coverage	To provide full logistics package may work with other providers (e.g., trucking, air freight) Not only extends scope and scale but limits risk
Use of Information Technology	To improve efficiencies (e.g., tracking, routing, maintenance), but investment is generally low	To improve efficiencies (e.g., tracking, routing, maintenance)	Significant investment (~2.5% of revenues) Generally offer clients shipment tracking but not online, EDI, or WMS	Investment is higher than national counterparts	Use IT intensively – challenge is training personnel to use it	WMS, TMS, ERP and shipment tracking prevalent Leverage international expertise and systems
Objective/Challenges	Offer high service level with broad geographic coverage at the lowest price	Offer high service level at the lowest price	Pursue continuous aggregation of differentiated services Maintain quality Need to be careful they don't overstep their capabilities in enlarging portfolio	Similar challenges as those confronting national counterparts	Offer same service reliability to all geographic regions Gain operational scale and delivery density Enlarge service offering Handle reverse logistics requirements	Deliver above-average service levels Overcome existing prejudices among users Recruit and retain key talent (managerial and solutions-oriented)
Future Prospects	One subgroup seeking improvement in service levels Another increasing scale in areas where high service levels are not required (e.g., agricultural commodities)	Increase efficiency level by customizing basic services offered to existing clients	Develop broader and integrated service offering	Develop broader and integrated service offering	e-Commerce and new postal law opening new product lines and geographies	Will enjoy one of the biggest growth rates as market demands more complex, integrated logistics solutions
Examples	Rodoviário Líder Integral Transporte e Agenciamento Marítimo Transportadora Tegon Valenti	Empresa Brasileira de Armazenagem (EBA) Empate Logística Expresso Jundiaí Toniato Transportes	Delara Brasil Matra Logística & Multimodal	Rio Grande Logística Transcontinental TAC Transp. Armazenagem e Logística	DHL Worldwide Express K&D Logística e Transportes	Cotia Penske Logistics Danzas Logística McLane Distribuição Ryder do Brasil TNT Logistics

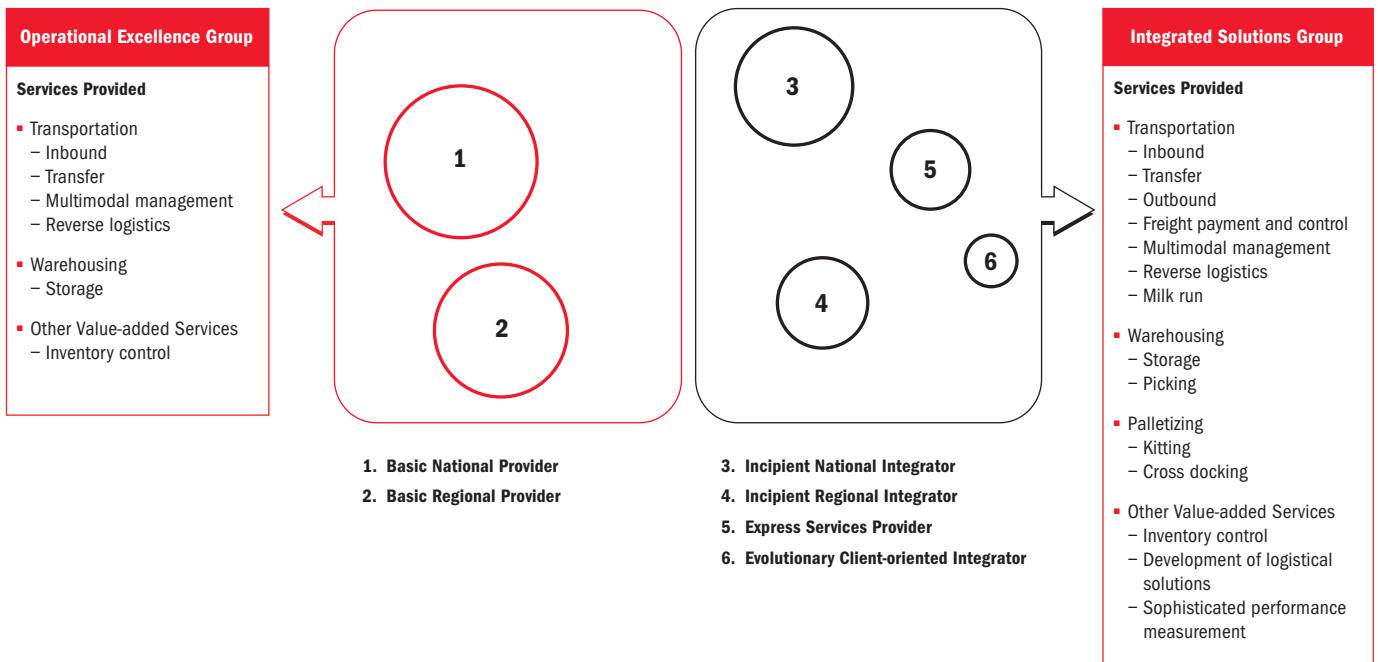
Note:

EDI – Electronic Data Interchange
ERP – Enterprise Resource Planning

TMS – Transportation Management System
WMS – Warehouse Management System

Exhibit 7

Logistics Services Providers Fall into Two Main Groups



Source: Booz Allen Hamilton

The Two Groups of Logistics Services Providers

It is our view — based on their present service offerings and general strategic directions — that these six clusters are coalescing into two main groups (see Exhibit 7). The first — and much larger — group comprises companies who strive for *operational excellence* in the basic services they offer customers. These companies focus on functional expertise across a limited range of transportation and warehousing services, in which they aim to be best-in-class.

The second group comprises companies who are extending their service offerings to include the design, implementation, and operation of *integrated solutions*. While still more reactive than proactive, these companies are trying to position themselves as “one-stop shops” for companies in need of logistics services. Integrated Solutions providers tend to target industries with a higher degree of logistical complexity and to focus on market niches or particular distribution channels. Often, Integrated Solutions providers will subcontract work to companies in the Operational Excellence category.

Each group confronts significant challenges in implementing its chosen business model, but each is also looking at considerable opportunities in the next three to five years. There is ample room in the market for both approaches, if well executed.

Integrated Solutions providers tend to target industries with a higher degree of logistical complexity and to focus on market niches or particular distribution channels.

Currently, the two groups differ primarily in three respects:

- Origin and evolution: challenges and opportunities
- Use of enablers: alliances and information technology (IT)
- Relationship with clients

Origin and Evolution: Challenges and Opportunities

Most players in the Operational Excellence category started out as either a transportation or a warehouse provider and gradually added other basic services to their portfolios along with some IT support. Integrated Solutions providers have developed a more sophisticated portfolio of logistics services offerings in response to specific client and market demands. Many of the players in this group are international providers that have come to Brazil to support multinational companies' expansions in the country. Now they are trying to expand and diversify their client base.

Exhibit 8 outlines the challenges and opportunities that distinguish the Operational Excellence group from the Integrated Solutions group.

Exhibit 8

Logistics Services Providers Challenges and Opportunities

	Operational Excellence Group	Integrated Solutions Group
Opportunities	<ul style="list-style-type: none"> ▪ Develop leading position in a highly fragmented market through: <ul style="list-style-type: none"> – Operational excellence – Cost effectiveness 	<ul style="list-style-type: none"> ▪ Design solutions that lower customer costs ▪ Expand offering of supply chain services ▪ Provide integrated supply chain management
Challenges	<ul style="list-style-type: none"> ▪ Maintain cost effectiveness <ul style="list-style-type: none"> – Be the most competitive option for a route (integrating different modes, if necessary) – Optimize asset utilization ▪ Ensure sufficient geographic coverage <ul style="list-style-type: none"> – Have a relevant geographic coverage, encompassing required freight contracting zones – Conquer major backhaul routes (e.g., São Paulo inbound/outbound routes) ▪ Maintain high operational standards <ul style="list-style-type: none"> – Leverage IT utilization – Standardize processes and leverage best practices 	<ul style="list-style-type: none"> ▪ Develop customized solutions <ul style="list-style-type: none"> – Be able to design and implement them – Maintain ongoing relationships to keep operations current ▪ Build human resources capabilities <ul style="list-style-type: none"> – Have the ability to attract and hold qualified managers – Develop logistics management capabilities – Have skillful project personnel – Have the ability to effectively manage partnerships/alliances ▪ Deliver high service levels

Source: Booz Allen Hamilton

Use of Enablers: Alliances and Information Technology (IT)

Both Operational Excellence providers and Integrated Solutions providers are utilizing alliances and information technology to overcome some of the challenges that persist in the Brazilian market. It is obvious that these will be the main drivers in the evolution of the contract logistics marketplace over the next several years.

Integrated Solutions providers have developed a more sophisticated portfolio of logistics services offerings in response to specific client and market demands.

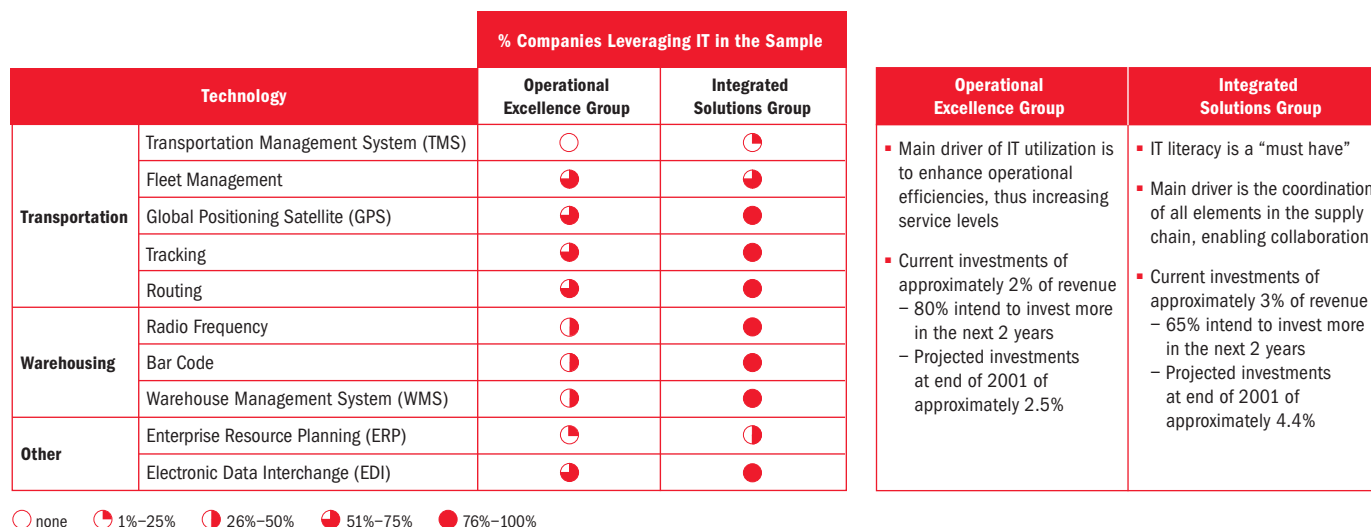
Sixty-four percent of the Operational Excellence providers responding to our survey have already entered into transportation, storage, and IT alliances, and 80 percent of the Integrated Solutions respondents have done so. The main reasons for developing these partnerships are largely the same across both groups — to increase geographic coverage, gain access to a complementary mode of transport or warehouse facilities, and reach potential clients. Barriers are also similar, although more extensive for Integrated Solutions providers. While both groups contend with the challenges of integrating operational planning and adapting to client cultures, Integrated Solutions companies also need to align both objectives and evaluation tools as well as find greater numbers of skilled personnel.

Information technology is a major factor in the development of not only the overall marketplace but also both groups' service offerings. Logistics services providers of all descriptions recognize IT leverage as essential to growing their business (see Exhibit 9).

Relationship with Clients

As a rule, Integrated Solutions providers have developed a more mature relationship with their customer base in areas such as pricing (commission-based

Exhibit 9
Information Technology Enabling Logistics Services Providers



Source: 2001 Booz Allen Hamilton, CEL/COPPEAD Brazil Contract Logistics Survey

versus fixed price tables) and contract length (long-term agreements versus spot contracts), as well as become proactive about broadening services and measuring performance (see Exhibit 10).

Logistics services providers of all descriptions recognize IT leverage as essential to growing their business.

While logistics services providers have made significant strides in enhancing the range and quality of the services they provide, there remain considerable gaps between what users want and what current providers can deliver. For example, although most logistics providers are asset-based, meaning they operate and control the assets (e.g., trucks, warehouses) they use, they do not necessarily own the assets. Yet, since the storage infrastructure is so inadequate and the transportation market so fragmented, it is difficult for contract providers to ensure adequate capacity over the near- and long-term without such assets. Furthermore, in their customers’ views, logistics providers are not

proactive enough in seeking out new opportunities to broaden their scope of service and meaningfully improve customers’ supply chain execution.

In our view, however, both parties in the outsourcing relationship are contributing to the persistent gaps. Undoubtedly, there is ample room for improvement on the provider side, particularly in marketing and integrated logistics management capabilities. There are few people with specialized skills in these areas, so providers have a difficult time identifying market opportunities and executing against them.

But customers are also holding back the development of these relationships. Most users, we found, are not demanding or even inviting third-party logistics providers to participate in the design of integrated logistics solutions. That collaborative culture simply does not exist. Moreover, users themselves often lack the necessary capabilities to implement more complex logistics outsourcing solutions. Overall, user prejudices weigh heavily in the process.

The good news, however, is that many ingenious third-party logistics services providers are already working on closing these gaps (see Exhibit 11).

Exhibit 10

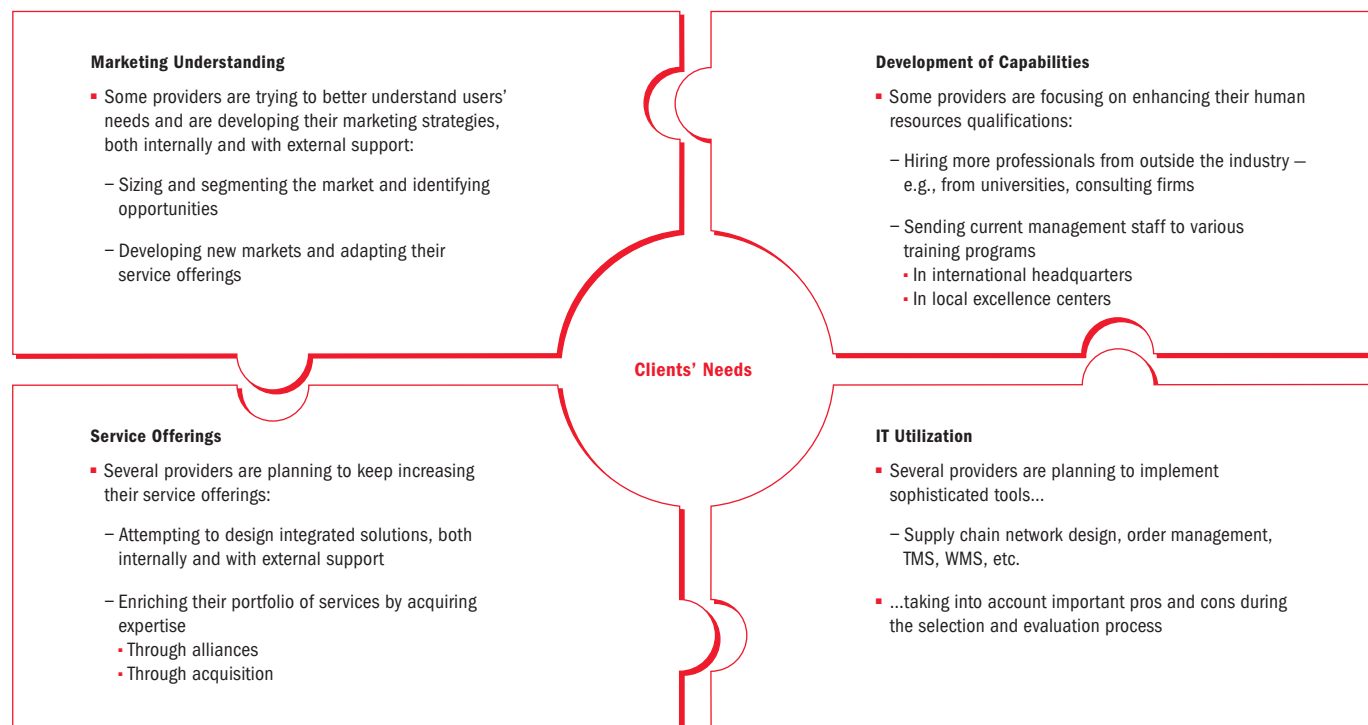
Key Differences in Relationships with Clients

	Pricing Practices	Relationship /Contract Length	Proactiveness in Broadening Services	Performance Measures
Operational Excellence Group	<ul style="list-style-type: none"> Based on price tables 	<ul style="list-style-type: none"> Majority on a spot basis May have a long-term relationship but most cases with no formal contracts 	<ul style="list-style-type: none"> Tend not to be proactive in broadening service scope but, in several cases, increase size of operation (e.g., new geographies and/or more transport routes) 	<ul style="list-style-type: none"> 54% of the signed contracts have performance measures other than cost/price
Integrated Solutions Group	<ul style="list-style-type: none"> Based on price tables Starting to consider alternative pricing practices 	<ul style="list-style-type: none"> Tend to have long-term commitments based on formal contracts 80% of contracts are over 1 year, 25% of contracts are over 3 years 	<ul style="list-style-type: none"> Starting to seek opportunities to broaden service offering 	<ul style="list-style-type: none"> 75% of the contracts have performance measures other than cost/price

Source: 2001 Booz Allen Hamilton, CEL/COPPEAD Brazil Contract Logistics Survey

Exhibit 11

Closing the Gaps



Source: 2001 Booz Allen Hamilton, CEL/COPPEAD Brazil Contract Logistics Survey

Case Study: The Outsourcer's Perspective

At the end of the 1990s, after a flurry of acquisitions, a Brazilian company (the subsidiary of a major global food conglomerate) confronted a set of entangled logistics systems rife with redundancies. Each of its many acquired operations had its own logistics systems, which were not effectively incorporated into the company's overall network. Moreover, the company had failed to invest in upgrading its warehousing facilities or modernizing IT, as it funneled all of its investment funds into production capacity to meet escalating demand. Not surprisingly, the company's service levels had deteriorated, failing to meet performance targets set with customers, including wholesalers/distributors and large retail chains.

Both the company and its parent recognized that it needed to take immediate and radical steps to integrate its operations and restore service levels. To create the logistics network among its various plants that this integration would require, however, was cost prohibitive if undertaken alone. Meanwhile, Brazil's high inflation rates, which had masked the "cost" of these operational inefficiencies, started to decline as the economy stabilized. Thus exposed, the company decided to outsource its logistics functions as part of a larger enterprise-wide transformation initiative so that it could focus on shoring up its core business. The company reasoned that leaving the logistics end of the business to third-party "experts" would result in not only lower costs but also higher service levels.

The company mapped out its outsourcing strategy along two dimensions: geography and logistical complexity. It determined that it would gradually transfer the operation of its nine distribution centers to third parties and then progressively withdraw from most of its other logistics operations. The distribution centers, which were geographically distributed, were assigned to different "phases" of the strategy. Logistics functions to be outsourced were prioritized based on their complexity, starting with warehousing and handling.

Currently in the first phase of this outsourcing initiative, the company has already offloaded its warehousing activities, obtaining benefits not only in terms of cost savings but also in improved service levels. Moreover, the company has enjoyed unanticipated corollary benefits now that the logistics provider is handling labor issues, expediting required investments, and attending to key processes such as repair and kitting.

Nevertheless, there have been unexpected problems. As the company transferred its assets and functions, it experienced many headaches as it re-evaluated its routes, counted inventories, and contacted transportation providers. The company's sales force was uncomfortable with the new arrangement, and the logistics provider's personnel had difficulty adjusting to the new products and clients. This upset might have been minimized, in the company's view, if the logistics services provider had hired some of the personnel laid off by the company during this process.

The difficulties encountered in integrating systems, however, were the greatest hurdles. Even now, breakage levels are still higher than expected, and inventory losses are more frequent than originally contemplated. In fact, one of the key lessons learned in the start-up phase, according to one executive interviewed, was to make contingency plans for every likely scenario.

In conclusion, although the overall journey has been positive, the "potholes" have been significant. While it is unlikely that the company will revisit its decision to outsource, it is planning to transfer remaining functions at a slower pace than originally planned. Still, the company acknowledges the benefits that third parties can bring, especially internationally, and anticipates fewer problems as it enters the next phase in its outsourcing rollout.

The First Six Months

Clearing the initial hurdles is often the toughest part in implementing a logistics outsourcing arrangement. Once the activities to be outsourced are identified and providers selected, then what happens? From our interviews with both providers and users, we gleaned the following tactical insights on activities that should be pursued simultaneously during the first three to six months.

First, develop and sign a *detailed contract* before work begins. This document should stipulate what the respective roles and responsibilities are so as to minimize potential conflicts and establish accountability.

It should cover:

- Logistics services providers responsibilities
- Client responsibilities
- Rates and charges
- Loss and damage
- Liabilities and indemnities

Clearing the initial hurdles is often the toughest part in implementing a logistics outsourcing arrangement.

Second, establish and agree upon key *policies* and *procedures*. During our interviews, several outsourcers complained that the services provided did not meet their high expectations. They expected “state-of-the-art” and got “better than average.” So, it’s critical that both sides spell out policies and procedures for the activities to be outsourced, including:

- Inbound receipts
- Warehouse operations
- Order processing
- Outbound shipments
- Transportation

Third, put in place a *communications process* that keeps all affected parties informed on a regular and appropriate basis. Communications should effectively guide both internal and external expectations. Fourth,

name a *transition team* to assume responsibility for the implementation process. And, finally, develop key *performance indicators* and *measurement processes*.

Lessons Learned

Based on our research, we believe that there is plenty of opportunity for both Operational Excellence players and Integrated Solutions players to succeed if they broaden their portfolio of services and develop efficiencies and sophistication.

Many logistics functions that could be presently outsourced are not, because current providers have not yet proven their capabilities. As they demonstrate their cost and quality advantages in the lower end of the logistics spectrum, they will gradually be given the opportunity to provide more value-added, solutions-driven services (e.g., multimodal distribution management, tracking, order management, etc.). These opportunities are particularly important for companies within the Integrated Solutions group, since they are the ones aiming to become “one-stop shops” for supply chain management.

The demand is certainly there. In Brazil, there is growing interest among manufacturers and retailers in logistics services outsourcing.

In short, the contract logistics services market in Brazil offers many opportunities:

- Expansion of supply chain services
- Further information systems development activities
- Ability to lower customer costs
- Reverse logistics
- Growth in the size and scope of contracts
- Home delivery
- Consulting services

...while presenting management with significant challenges:

- Shortage of qualified professionals
- Inexperience in managing partnerships and alliances
- Inability to develop improved processes
- Limited information technology literacy
- Underdeveloped management skills

To achieve long-term success, logistics services providers will need to make the recruitment and retention of qualified staff a top priority. Finding qualified people is, by far, the industry's most pressing challenge.

Many logistics functions that could be presently outsourced are not, because current providers have not yet proven their capabilities.

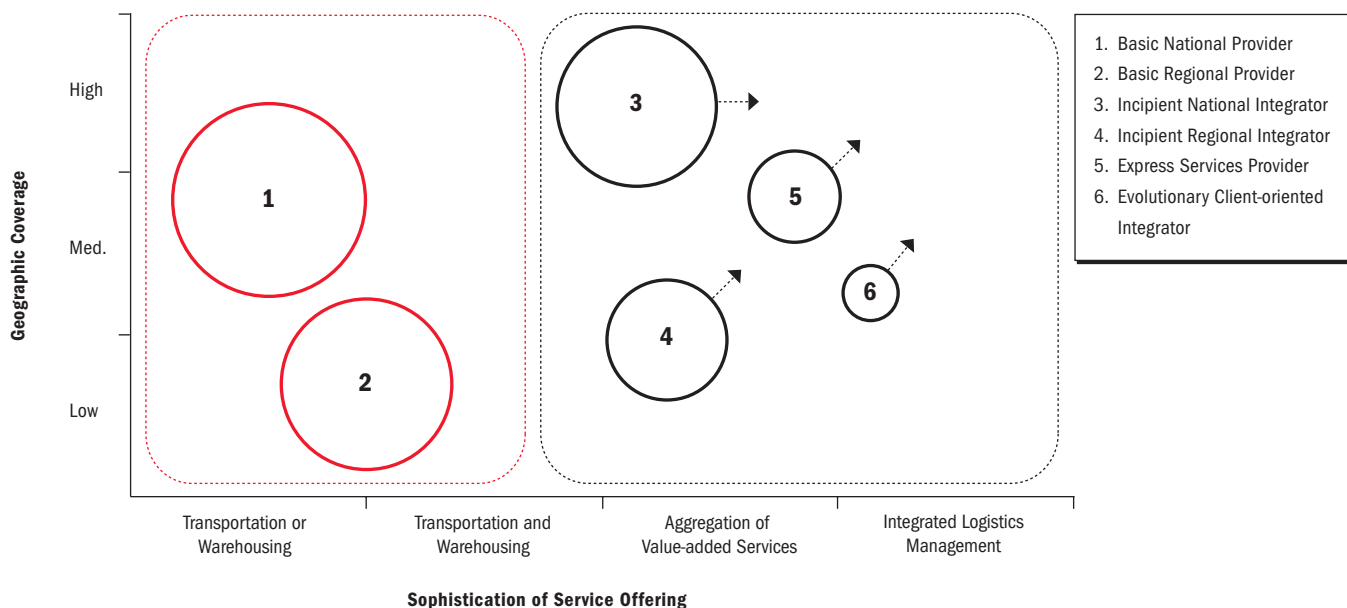
We anticipate that the clusters of companies in the Integrated Solutions group will migrate toward an integrated logistics management platform and grow in size. Meanwhile, the Operational Excellence group will retain a large share of the contract logistics market and remain divided between national and regional providers (see Exhibit 12).

The survivors in this marketplace will be those who recognize the future opportunities today and position themselves to take full advantage. That means making key investments in people and technology. That also means building a more complete and sophisticated service offering across three dimensions — geographic coverage, target industries, and service mix.

Over the next three to five years, we see the market growing substantially as customers begin to appreciate the value inherent in outsourcing and as the competitive playing field changes. While weaker providers will likely fail, new international and nontraditional competitors will take their place. As the industry consolidates, many firms will merge.

Booz Allen Hamilton and CEL/COPPEAD expect that Brazil will have a more mature contract logistics market in the near future as a result of four factors: intensified

Exhibit 12
Expected Evolution of Contract Logistics Market



Source: Booz Allen Hamilton

managerial training (on both the user and provider sides), approval of Brazilian tax reform, expanded service offerings, and increased IT adoption.

To achieve long-term success, logistics services providers will need to make the recruitment and retention of qualified staff a top priority.

While there is no generic strategy or answer that will apply in all cases, there are common elements in various companies' winning formulas. Whatever particular strategy a provider decides to pursue, its implementation should leverage three major enablers:

- *Assets* — mobilizing an adequate fleet profile and warehouse footprint for the operation
- *Technology* — using the Internet, both as an interface with clients and as a new sourcing, marketing, and sales channel
- *Relationships* — leveraging current market connections to reach new target clients with specific proposals; strengthening position through mergers, acquisitions, and strategic alliances.

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Logistics Services Providers

Abrange Logística	EBX Express do Brasil	Mercúrio Logística e Armazéns Gerais	Toniato Transportes
ALL Intermodal	Empate Logística	Mesquita Transporte e Serviços	Tora Transportes Industriais
Alpha Logística	Exata Logística	Metropolitan Logística	Total Express AS
Argimpel Logística em Armazenamento	Exel Logistics do Brasil	OTM Serviços de Logística	Transportadora Binotto
Armazéns Gerais Columbia	Expresso Jundiá	Ouro Verde Transporte e Locação	Transportadora Cardoso Minas
Centro Logístico Eichenberg & Transeich	Expresso Mirassol	Proativa Cargas	Transportadora Cometa
Coimex Logística Integrada	Faster Logistics	Rio Grande Logística – Transcontinental	Transportadora Itapemirim
Comfrio Armazéns Gerais	Hércules Sistemas Logísticos	Rodoviário Líder	Transportadora Julio Simões
Cotia Penske Logistics	Hod Kether Ass Logística e Distribuição	Rodoviário LiderBrás	Transportadora Tegon Valenti
CSI Cargo Logística Integral	Intecom Serviços de Logística	Ryder do Brasil	Transporte Excelsior
Danzas Logística	Integral Transporte e Agenciamento Marítimo	Schenker do Brasil Transportes Internacionais	Transsivil Transportes e Logística
Delara Brasil	Interfreight Logistics	TA Logística Consultoria e Armazenagem	Tropical Transportes Ipiranga
Delta Record Com Serv Armazenagem	K&D Logística e Transportes	TAC Transp. Armazenagem e Logística	Universal Armazéns Gerais e Alfandegados
DHL Worldwide Express	Keepers Logística	Tam Express	
Di Ci Logística Armazenagem e Transporte	KN Deicmar	Target Logistics	
Disporte Distribuição e Transporte	Logisplan	TM Logística	
EBA – Empresa Brasileira de Armazenamento	Maia Logística	TNT Logistics	
	Marbo Logística Integrada		
	Matra Logística & Multimodal		
	McLane Distribuição		

Manufacturers

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 FIAT Automóveis
 MERCK Indústrias Químicas Brasil
 Unilever Best Foods

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CEL/COPPEAD is the most prestigious center for logistics teaching and research in Brazil. Founded in 1994 in response to the growing need among Brazilian industries for logistics knowledge and expertise, CEL/COPPEAD has had but one mission since its inception: to create and spread logistics knowledge to both academia and private enterprise.

In 1997 the institute offered the first logistics management course, in conjunction with Michigan State University. In addition, CEL/COPPEAD provides in-company training, short courses, and a Master of Business Administration (MBA) in logistics. CEL/COPPEAD authors have contributed extensively to academic publications, specialized magazines, and industry conferences. To learn more about CEL/COPPEAD, visit www.cel.coppead.ufrj.br.

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Luiz Vieira, a Vice President in Booz Allen Hamilton's São Paulo office, leads our operations and logistics consulting in Latin America. He consults with clients across a range of industries in areas of operations, logistics, business strategy, and restructuring.

Paulo Fernando Fleury, the Titular Cathedratric Professor in the Ipiranga Chair of Strategy and Operations, is the Director of CEL/COPPEAD's Logistics Study Center. He has published extensively in international periodicals and books and has been teaching and consulting in operations strategy and enterprise logistics for more than 20 years.

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