

A C K E R M A N  
**WAREHOUSING  
 FORUM**

*The industry publication dedicated to helping warehouse managers and their bosses improve productivity and manage more profitably with tips, comments and articles written by practicing professionals.*

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## Why We Need To Re-invent Logistics Outsourcing

By Jim Eckler, President, Eckler Associates

*Editor's Note: In this article, our guest author provides a wake-up call for logistics professionals. For some, his message may be controversial, but few would quarrel with the facts that support it. As the recently retired CEO of a major logistics service company in Canada, Jim has the experience and the perspective to discuss innovation. KBA*

The logistics outsourcing business is maturing. It has grown up. The exuberance of its youth has passed and the steady cadence of on-going, continued service is now the norm. Those involved in logistics outsourcing are the Logistics Services Providers (LSP) including Third (and Fourth) Party Logistics (3PL) providers.

While this seems like good news to most of us, there is a negative side to it. Overcoming the challenges of the bad news, while leveraging the good news, will require change in the industry, perhaps through a re-invention of the business model. It will not be easy or comfortable for some, but it will lead to a service industry that is more vital and powerful than the current one. The process is explained in this article.

First, the good news. Along with maturity comes understanding and respect, and that is what we have today. Unlike 20 years ago when relatively few knew much about this business, most industry participants today know an LSP when they see one, have a pretty good idea of what they do, and know how to create value from the relationship. Most, in fact, have had some kind of direct involvement with an LSP. While not all are perfectly happy with their LSP relationship, surveys indicate that most derive reasonably good value from them.

The bad news is that, upon reaching maturity, the industry has encountered issues, and LSP managers must move on and introduce a new approach or a fundamentally new service.

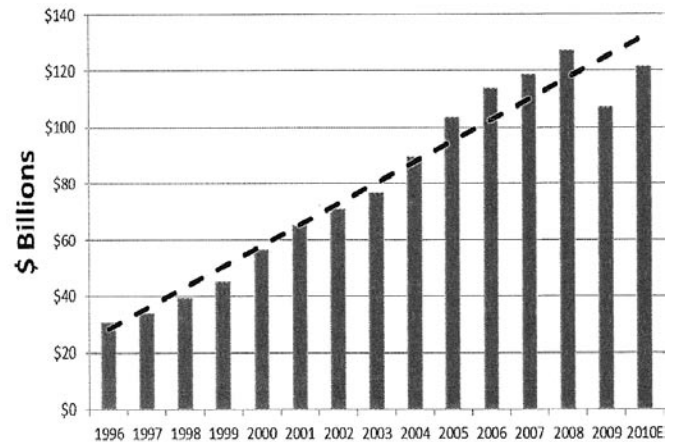
### The Impact of Maturity

Why do we believe that the LSP industry has achieved maturity? One clear indicator is the revenue trend of the past 14 years. While the published data looks quite rosy, with revenue increasing each year by a rate well above GDP, the underlying trend shows diminishing growth rates each year. This is demonstrated on the two charts in Figure 1 and Figure 2, which apply specifically to 3PLs.

Annual 3PL revenue levels from 1996 to 2010 are shown in Figure 1.

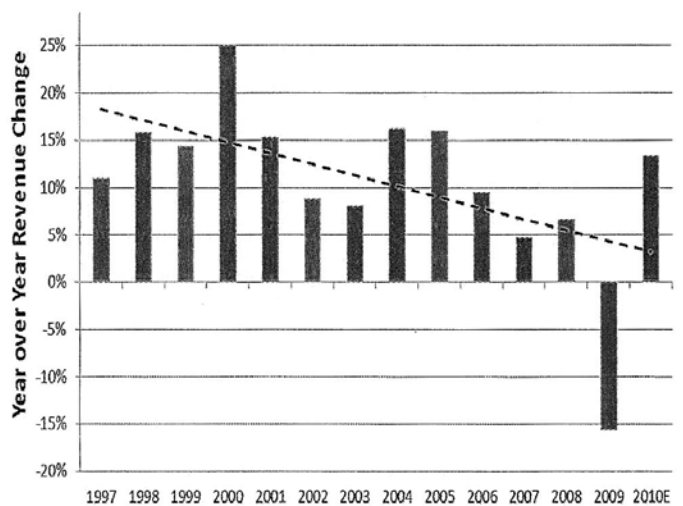
Most organizations would be very pleased with the overall 10% compound annual growth rate (CAGR) shown.

**Figure 1: Revenue Trend for North American 3PLs -- 1996 to 2010**



Source: Armstrong & Associates

**Figure 2: North American 3PLs -- Year Over Year Revenue Change**



Source: Armstrong & Associates and Eckler Associates

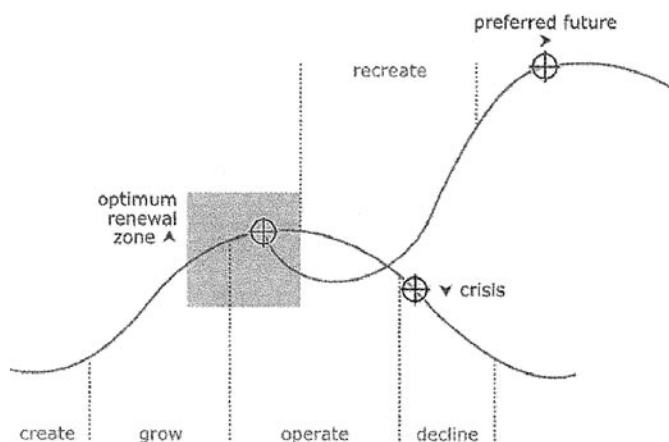
However, when we plot the year-over-year growth rate, we find another disturbing trend. Each year the annual growth rates are getting lower.

For example, industry revenue grew from \$30.8B in 1996 to \$34.2B in 1997, which amounts to an 11% annual growth rate. In 2002 and 2003, the corresponding growth rates were only 9% and 8% respectively. Later years have been even lower. While there have been a few 'up' years during this period, the trend line for this data shows a clear negative slope, as presented in Figure 2.

If this trend continues, the annual growth rate eventually will decline to zero, and has the potential to turn negative.

This reduction in growth rates may come as a surprise to many who view the LSP business as a high growth industry. As with any growth business, it will follow a typical growth trajectory through its life cycle. At a certain point with any business, growth begins to level off and then decline, unless it is renewed. The *business life cycle* and the point in the cycle, *optimum renewal zone*, when renewal must be introduced to counteract the decay of a maturing business are shown in Figure 3.

**Figure 3: Business Life Cycles**



Source: Next Institute

Prior to peaking, any industry must go through this renewal process. If not, revenues will drop and crises will prevail. A renewal may manifest itself as a fundamental change in the business model, a significant new product or service introduction, or a transformational cost reduction that dramatically improves the price point. Based on the data, the LSP industry is reaching its peak and has entered the optimum renewal zone. The LSP industry is at the point where such a change is necessary and it is time for renewal. What changes should we pursue and how will the industry and clients react? One answer lies in the rate of innovation, or lack thereof, within the LSP industry.

### ***Innovation in the Logistics Industry***

The logistics services industry has fine companies with managers committed to the success of their clients; however, the track record for innovation is not strong. While it may appear as though there have been improvements and new services at LSPs, many of these services are those within the broader supply chain field and would have been implemented by the LSP clients, themselves. True innovations, those that are unique to LSPs and would be other-

wise unavailable to their clients, are surprisingly limited and scarce. This lack of true innovation is a serious indictment for any industry.

When we consider reasons for lack of innovation, we find a potential conflict within pricing structures. In many cases, an innovation resulting in greater productivity will lead to lower revenue for the provider. When that also results in lower profits, the LSP and its shareholders take notice and are penalized in the short term.

Clearly, providers who have a long-term perspective of competitiveness see the fallacy in avoiding innovation and lower revenue in the short term. Still, as human beings and as quarter-end retentive organizations, there is a tendency to succumb to the short term perspective. Fortunately, most logistics providers do take the long term view, and most realistic participants in this market are aware of this dilemma. But the issue does arise and conflicting objectives do exist. One practical solution to stimulate innovation would be a redesign of the contract between the LSP and its client to reward *both* parties for productivity improvement.

Another driver of innovation resistance in the LSP industry is an aversion to risk. Margins in the LSP business are low, which limits the amount of risk that a LSP will take. Investing in new services or new technology, without a client to underwrite the risk, does not happen as often as it should. LSPs, and their clients, need to push the envelope to create new and innovative service offerings. Unfortunately, during the past 20 years, relatively few fundamentally new services have been introduced in the logistics services industry.

### ***Examples of LSP Innovation***

While the LSP industry itself has not introduced many true innovations, there are two notable recent examples of individual LSP innovation.

The first example is a new service created by SCI Group, a Canadian-based 3PL, that provides support for enterprise supply chain transactions to a group of hospitals in Southeastern Ontario. SCI directly manages all transactions from the creation of the purchase order, to the payment to vendors, through just-in-time fulfillment, and to the billing of client hospitals. By utilizing SCI's enterprise transaction management engine in its SAP system, SCI has created a new logistics services offering which dramatically simplifies the sourcing and delivery of medical surgical supplies to its hospital clients. As well, through this process the hospitals and the buyers have far greater access to consumption data, enabling them to better control procurement and consumption. While SCI must accept risks, such as nominal inventory ownership, the value to client organizations is compelling.

One of the most fascinating examples of transformational innovation in the LSP industry is the work being done by Kate Vitasek and her colleagues at the University of Tennessee. They believe that LSPs should have vested interest in the overall corporate success of their clients so that the LSP is compensated for supporting their client's achievement of its corporate targets. They call this Vested Outsourcing. It gives real meaning and substance to the

concept of partnership between a LSP and its client. The implementation of this concept fundamentally changes the business relationship of the LSP deal, and enables the introduction of innovative pricing structures that can benefit both the client and the LSP. At the same time, it introduces a significant risk to the LSP if it does not perform. While some LSPs may struggle with this type of risk, hopefully most will embrace it.

## Conclusions

Clearly the logistics services industry and its clients have much to gain by introducing and promoting innovation in processes and services. Although most LSPs have invested in new supply chain technology and practices, most of their innovation is available to their clients with or without the LSP. The market needs LSPs to introduce innovations that are unique to the LSP and not generally available to clients. Such innovations are necessary for the industry to reinvent itself, if it is to meet the needs of its clients.

An innovative culture will lead to increased client satisfaction, increased value delivery, and ultimately, long term client relationships. Successful innovation requires both a long-term perspective and a willingness to accept manageable risks. Both providers and their clients need to accept risks and encourage true innovation.



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## What Have You Done Lately?

Critics of the logistics service industry frequently point out that service companies lack creativity. Plenty of excuses can be found. Buyers seldom reward innovation, nor do they encourage creativity. In lean times, it is the leanest of service providers that are those most appreciated by their customers.

When the sustainable creativity of Pixar was examined in a recent issue of *The Economist*, the author pointed out that this Hollywood cartoon company is a poster child for creativity. While many hit machines run out of steam, Pixar continues to be sustain its creativity. The company puts more emphasis on people than on projects. It also devotes a lot of effort in getting people to work together. The company asks its teams to conduct postmortems of every completed film. Each review must identify at least five things that did not go well, as well as five that did.

Pixar is not the only company that tries to maintain a culture of creativity. 3M, DuPont and General Electric are others that have made strenuous efforts to constantly develop new products.

But what about sustainable creativity in logistics services? Consider three companies that have made their mark with creativity: Cat Logistics, FedEx and GENCO. The logistics division of Caterpillar was the first service company to create awareness of the value of effective distribution of replacement parts as a logistics service activity. The parent company recognized that they have a superior ability to deliver replacement parts for a broken down bulldozer in Siberia. They knew that the function has always existed, but nobody in the service industry had seized the opportunity to develop this service.

Fred Smith, founder of FedEx, came up with the concept of overnight air delivery as a student at Yale University and received a low grade from his professor when he submitted a paper describing the concept. FedEx invented the concept, but it was not protected by patents. Competi-

tors entered the market, and FedEx works each day to maintain a competitive edge established when it was the only company offering overnight delivery service.

GENCO virtually invented the outsourcing of customer returns. Its chief executive got the idea after visiting with a neighbor who owned a retail drug chain. There is nothing new about reverse logistics, or the handling of returns. However, GENCO has maintained leadership in this field through constant innovation and improvement of the function. At the same time, the company has funded academic research in reverse logistics and has worked to stay ahead of the competition.

If you examine the three logistics examples mentioned above, none of them was primarily stimulated by a request from a customer. In each case, a creative leader saw a better way. It is never too late to innovate. What have you done lately?

## Measuring Warehousing Effectiveness

Most of the metrics are concerned with productivity, but perhaps the most important ones deal with quality. The most important of these is average order cycle time, or the time elapsed between knowledge of the need to make a shipment and delivery of that shipment to the customer. Getting the job done correctly is equally important, so a critical measurement is the number of errors as a ratio of total units handled. Warehouse damage is a quality barometer, and damage should be compared to number of units handled. Customer complaints do not always involve warehouse operations, but it is prudent to compare the number of complaints received and maintain a ratio of complaints to total shipments. Inventory discrepancies are a sign of trouble, and these should also be compared to the total number of pieces handled.



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# WAREHOUSING TIPS

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## *Keeping the Stars*

As the economy improves, it could be difficult to retain some of the workers who joined your team recently. Here are some ways to retain the best people:

- Always identify growth opportunities. If you hired Joe as a lift truck operator, does he have the potential to become a supervisor? If Susan was hired as a customer service representative, does she have the potential to become a manager? Be sure your people are aware of the opportunities they have to move ahead in your organization.
- Don't expect new hires to be workaholics. You may be one, and many senior managers do spend seven days a week on the job. Don't assume that your employees share your zeal. Give them the time they need for themselves.
- Be sure your door is really open. The best productivity suggestions are likely to come from your newest employees, simply because they see the job with a fresh pair of eyes. They need to know that you are always interested in learning about their ideas to improve the business.
- Is your compensation in line? Money is not always a motivator, but inadequate pay could be a de-motivator.



## *Selecting a Service Provider*

The first step in the process is to be very specific in deciding what services you want. At the same time, quantify the level of performance that you need for the purchased service. Consider how to deal with the challenges of scalability — can the provider double the throughput. At the same time, address the risks of scalability both up and down. If the volume is cut in half, can the provider survive with reduced revenue? Productivity improvements should be expected, and the way to handle them is subject to negotiation. A gain sharing program should allow the provider to enjoy some of the benefits of improved productivity. If there are subcontractors as well as contractors involved, be sure you know everyone you are doing business with.



## *Safety And Lack Of Tools*

While inspecting a warehouse this summer, we observed a worker climbing on shelves to retrieve product that was stored 10 feet high. The practice is obviously unsafe, and an accident would have attracted the attention of OSHA. However the real problem is the fact that the worker did not have a reasonable alternative. While there was a rolling ladder in the facility, it was well hidden. In the absence of any way to get the product, the employee solved the problem in the easiest way. Do your people have, easily available, the tools they need to get their work done safely as well as efficiently?

## *When Micromanagement Is Really Necessary*

Writing in *Forbes* this summer, Professor C.M. Riordan of University of Denver outlined the five times when it makes sense to micromanage:

- When the strategy is changing, some folks may not adapt to the change. Close attention is needed to ensure that everybody is on the same page.
- When your company gets a new customer, close supervision is necessary to ensure that the new client's procedures are understood and observed.
- When there is a new person on the team, either a leader or team member, extra care must be taken to ensure that the new person understands the culture.
- When a project lingers, or a team member fails to execute, management should micromanage to discover the source of the slippage and correct it.
- When a customer registers a significant complaint, careful investigation is needed before corrective action can be taken.



## *When Leadership Training Is Urgently Needed*

As logistics companies recover from recession, many find that training has been neglected because funds were not available. If your firm is struggling to compete in a recovering market, leadership training is more critical than ever. With new people on the team, the effectiveness of the team leader is critical.



## *The Importance of Slotting*

The process of determining where each item should be located is called slotting. Slotting should enable you to use space intelligently and to avoid wasting time in the process of order selection and put away. Every slotting decision should be based on analysis of data. Here are some of the things that should be considered in making decisions regarding slotting:

- The total number of active SKUs
- Cubic displacement of each SKU
- Order profiles, including lines and units per order
- Product velocity profile (which SKUs move fast)
- Identify SKUs that always ship together
- Kitting or assembly operations
- Special storage requirements (high security or temperature control)

The best slotting arrangement will place the fastest moving items close to the docks. Where rack or shelving is used, the fastest movers are in the "golden zone" between waist and shoulders.

A key decision in slotting is whether to store product families together. Another decision is whether to establish a forward pick line of the most popular items. Finally, management must determine the number of pieces to be stored in each forward pick slot, and that determination is based upon usage.

# KEN'S COMMENTS

## *Hire For Attitude*



Planned Companies is a real estate company (www.plannedcompanies.com) based in New Jersey. Not all of its services, such as janitorial work are attractive jobs. Facing this situation, management developed its own selection process to attract people who are both “passionate” and loyal. After studying procedures used by Southwest Airlines and Nordstrom, management devised its own testing procedure.

The test is administered only face-to-face or by telephone, and it is designed to measure five qualities:

- Integrity. Is the person likely to be honest?
- Passion. Does the candidate see anything in life that excites true passion?
- Longevity. Are they seeking a career or just a job?
- Positive attitude
- Task knowledge

Success is measured. Test questions and employment practices are constantly reviewed. A dashboard is used to measure the people who quit or are terminated as a percentage of the total hired. Employee turnover rate today is lower than the average for its industry, and management expects improvement.

This is a powerful example for the logistics service industries. The job of freight handler, lift truck operator or truck driver is far more attractive than janitor. Employee turnover in logistics companies is high, because many hire for skills rather than for attitude.



## *Criteria For A Productivity Measurement*

Don't fail to ask these questions as you consider the installation of a measurement system:

- Is the measurement valid? Is measuring by piece more realistic than measurement by weight?
- Does the measurement cover all of the activities involved in the process?
- Is the measurement comparable. The measurement should be usable in different warehouse locations and at different times?
- Is it truly useful? Don't hesitate to delete measurements that are no longer valid or significant.
- Is it cost-effective? It does not make sense to spend dollars to measure pennies.

Productivity measurement is an ongoing process. Once installed, you should review and adjust the system.

## *Four Alternatives To Full-Time Hires*

One reason why job creation has been weak this year is that employers have other options. Here are the most frequently used alternatives:

- Temporary workers from a staffing service
- Student interns
- Freelance contractors
- Overseas outsourcing services

Those using a staffing service often negotiate a “temp to hire” program which allows them to offer a full-time job to outstanding temporary workers. This allows the employer to learn a lot about the worker before deciding to hire that person.

If you live in the university community, offering part-time work to a student intern has several advantages. You avoid expensive benefits provided for full-time employees and for the student who is specializing in logistics, an internship provides an invaluable addition to the resume. Freelance contractors are increasingly common in today's economy, and a contractor who specializes in your business may offer substantial experience as well as extraordinary flexibility.

In some developing countries, such as India, there are outsourcing services run by American firms that offer specialists in many areas. Sometimes the workers have substantial education and experience. Furthermore, because of the time change, an assignment transmitted at the end of the day in the USA may be processed and delivered on the following morning.



## *A Culture Of Creativity Begins At The Top*

As we survey the wreckage of the Great Recession and recognize that warehousing has always been a lagging indicator, it is useful to realize that a few companies made enormous progress during the 1930s depression. The DuPont Co. introduced some of its greatest inventions in that decade. The successful innovators always benefit from a senior executive culture that is dedicated to change. If you don't set the example by welcoming and rewarding new ideas, creativity will never blossom in your organization. The spirit of innovation must start with you.



## *The Fulfillment Pioneers*

Only those ignorant of history will be persuaded that warehouse fulfillment is a phenomenon of the late 20th century. Sears Roebuck opened a mail-order plant in Chicago in 1906. With more than 3,000,000 square feet of floor space, it was the largest business building in the world. Building fulfillment plants was one thing, making them operate efficiently was another. To correct operating problems, Sears developed a time scheduling system that caused each outbound item to be placed in the correct bin at an assigned time. Henry Ford visited this mail-order plant to study the assembly-line technique used in the Sears system.

## 3PL Perspectives

*Inbound Logistics*, July 2010, pg. 96.

In this annual issue devoted to third-party logistics — better known as logistics service providers, the editors report on a survey of both shippers and providers. The greatest teaching of this survey is differences of opinion between the two. Most notable was the question: what is the number one reason 3PL partnerships fail? 47% of providers said that the primary reason is “failed expectations,” but 52% of the shippers say that the primary reason is poor customer service. “Failed expectations” is not well defined, but we assume that vendor and buyer failed to communicate realistic expectations during the negotiation process, thus causing the buyer to expect service levels that were not contemplated by the service provider. Customer service difficulties can be controlled when the provider has an effective system for monitoring service satisfaction. The disparity between the views of the operator and the shipper certainly suggest opportunities for improvement in the process of buying and implementing the delivery of logistics services.

## The Sun Will Come out Tomorrow

By C. F. Lynch, *CSCMP Supply-Chain Quarterly*, 2010 special issue, pg. 36.

Now that the economy is improving, LSP managers must adopt new techniques and management strategies. They must boost service offerings and establish new ones. Those who were creative and innovative during the downturn will be best able to handle higher volumes at lower costs.

## Go Fetch

By D. Maloney, *DC Velocity*, May 2010, pg. 62.

This case study describes how Del Monte foods utilizes laser guided lift trucks, LGVs. Some of these vehicles are forklifts that carry one pallet at a time. Others carry four pallet loads. The larger vehicles move product from the plant to the distribution center, and the smaller ones handle order picking. The vehicles are purchased from Elettric 80, an Italian automation specialist. More than 20 conventional lift trucks were replaced by the LGVs.

## Location, Location, Location

By Steve Blackburn, *Focus*, July 2010, pg. 46.

This British article describes how vehicle tracking systems can save money in a delivery operation. Fuel savings come from more efficient routing and avoiding unnecessary journeys, as well as engine idling. Real-time tracking improves dispatching and driver productivity. Specific case examples are provided.

## Forklift Buyer's Guide

*Inbound Logistics*, August 2010, pg. 73.

Only three manufacturers are listed in this far from complete guide, but among them are some trucks that are unusual. The Bendi B45AC-HL is a truck with a maximum lift height of 39 feet and a four-wheel articulating drive that allows it to work in aisles as narrow as 6.5 feet. Raymond has an “i battery module” which notifies managers of key battery statistics, such as charge/discharge cycles, high and low temperatures, and low battery water levels. These controls will prolong the life of the battery. Yale's ERP030-040VF is an electric truck with front wheel motors that rotate drive tires in opposite directions, allowing for a zero turn radius.

## The Innovation Machine

*The Economist*, August 26, 2010 pg. 57.

This article reviews the work of Dartmouth professors V. Govindarajan and C. Trimble in their book titled *The Other Side of Innovation: Solving the Execution Challenge*. Some companies focus on the supply side of innovation, by encouraging all employees to think big thoughts. 3M asks every worker to spend 15% of their time on independent projects, and Google goes further and ask them to spend 20%. The authors suggest that this produces far too many ideas, and managers waste time sorting through the chaff to find a few grains of wheat. A second approach closes the loop between ideas and results. Steelmaker Nucor offers bonuses to workers who can produce steel more efficiently. This approach offers incremental improvements but has little chance of producing a big breakthrough. The authors recognize that innovation is unnatural. Large firms such as Harley-Davidson, BMW and Allstate developed teams to solve a problem with an innovative approach. The challenge is to conquer new territories while continuing to cultivate the old ones.

## iPad in the Warehouse

By A. K. Reese, *Supply & Demand Chain Executive*, September 2010, pg. 14.

This case study describes how Markley Enterprises is using the Apple iPad as an order picking tool. The device is mounted on a picking cart and combined with an application offered by Red Prairie. Another unit is mounted on a forklift for receiving and put away. A companion article lists several other sources of warehousing applications for the iPad: sterlingcommerce.com, managementdynamics.com, NetSuite.com, nextviewsoftware.com, and vai.net.