

Achieving Closed-Loop Transportation Spend Management

New Strategies for Improving Procurement and Payment

January 2008

Executive Summary

A traditional approach to reducing logistics costs has been to develop best practices in tactical planning and execution functions such as improved load building and routing guide compliance. While this can often reduce a large percentage of operating costs, companies are growing more and more aware of the impact of inefficient internal processes for *transportation procurement and payment*. As a result, companies are beginning to focus on improving and automating functions such as bid analysis, contract awarding, and freight audit and payment.

Research Benchmark

Aberdeen's Research Benchmarks provide an in-depth and comprehensive look into process, procedure, methodologies, and technologies with best practice identification and actionable recommendations

Best-in-Class Performance

Aberdeen used three key performance criteria to distinguish Best-in-Class companies:

- Overall freight spend: decreased year-over-year
- Contracted freight rates: >5% decrease year-over-year
- Average cost per invoice processed: \$1 to \$10

Competitive Maturity Assessment

Survey results show that the firms enjoying Best-in-Class performance are:

- Twice as likely as their peers to practice closed loop transportation spend management today
- 27% more likely than their peers to allow expressive carrier bidding
- 46% more likely than their peers to automatically audit freight invoices against electronic rate tables
- Twice as likely as their peers to perform extensive analysis of historical freight spend data and convert it into an RFP

"We're optimistic that we can save \$3 to \$4 million dollars in reduced contract and accessorial rates."

~ Gregg Bostick, Vice President
of Transportation, Pinnacle
Foods

Required Actions

In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must:

- Begin improving transportation spend management by automating either contract procurement or freight audit and payment depending on the level of executive support for the project
- Complete the spend management loop by using detailed transportation spend data to manage a more effective carrier bid process
- Consider community benchmarking for even greater reduction of contracted rates

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Table of Contents

Executive Summary.....	2
Best-in-Class Performance.....	2
Competitive Maturity Assessment.....	2
Required Actions.....	2
Chapter One: Benchmarking the Best-in-Class	5
Business Context	5
Achieving Best-in-Class Performance.....	6
Maintaining the PACE.....	7
Market Pressures	7
Chapter Two: Benchmarking Requirements for Success	10
Competitive Assessment.....	12
Ways to Improve Carrier Bidding	13
Ways to Automate Freight Audit and Payment.....	15
Managing the Hand-off	16
Enabling Technology	19
Three Success Stories - Three Different Approaches	21
Chapter Three: Required Actions	25
Laggard Steps to Success.....	25
Industry Average Steps to Success	26
Best-in-Class Steps to Success	27
Appendix A: Research Methodology.....	28
Appendix B: Related Aberdeen Research.....	30

Figures

Figure 1: Freight Spend and Average Cost Per Invoice.....	5
Figure 2: No Central Visibility of Data.....	6
Figure 3: Executive-Level Support Matters	8
Figure 4: Closed Loop Appears on the Radar.....	8
Figure 5: The Transportation Management Wheel.....	10
Figure 6: Top Companies Practice Closed Loop Spend Management	11
Figure 7: How Top Companies Automate Procurement.....	13
Figure 8: How Top Companies Automate Audit and Payment	15
Figure 9: Levels of Automatic Data Conversion.....	16
Figure 10: Top Companies Have Better Spend Analytics.....	18
Figure 11: Data Model for Transportation Spend Management	20
Figure 12: Essential Tools in a Closed Loop System	21

Tables

Table 1: Top Performers Earn Best-in-Class Status.....	7
Table 2: Best-in-Class PACE Framework for Spend Management.....	7

Table 3: The Competitive Framework..... 12
Table 4: The PACE Framework Key 29
Table 5: The Competitive Framework Key 29
Table 6: The Relationship Between PACE and the Competitive Framework
..... 29

Chapter One: Benchmarking the Best-in-Class

Business Context

A traditional approach to reducing logistics costs has been to develop best practices in tactical planning and execution functions such as improved load building and routing guide compliance. While this can often reduce a large percentage of operating costs, companies are growing more aware of the impact of inefficient internal processes for *transportation procurement and payment*. As a result, companies are beginning to focus on improving and automating functions such as bid analysis, contract awarding, and freight audit and payment.

In Aberdeen's survey of over **300** shippers in January 2008, 54% of companies indicated that they planned to improve their internal ability to analyze freight spend in the coming year. The number two initiative for companies is to improve their ability to source and negotiate freight rates. As companies focus on transportation procurement and payment - the front and back ends of transportation management - a growing number of them have embraced the concept of "closed loop spend management."

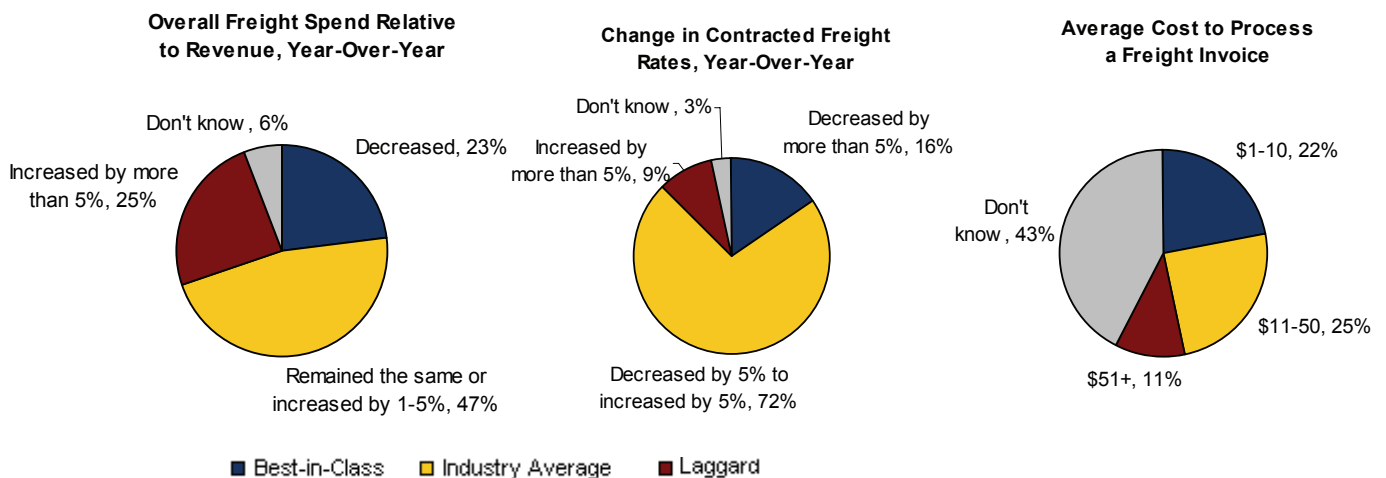
Challenges to the Bottom Line

Over the past year, 49% of companies have watched overall freight spend rise relative to revenues. A large component of freight spend is contracted freight rates - a corresponding 45% of companies have seen contract rates increase relative to the previous year. Furthermore, 36% of companies are paying more than \$10 on average to process an invoice (Figure I). This administrative cost often gets ignored when considering transportation improvement initiatives.

Fast Facts

- ✓ Only 16% of companies have decreased contracted freight rates by more than 5% year-over year
- ✓ Only 22% of companies have processing costs of less than \$10 per invoice
- ✓ Only 34% of companies have transportation procurement and payment data in shared databases at the global level
- ✓ Best-in-Class companies are twice as likely as their peers to have corporate mandates to improve transportation spending control
- ✓ Only 23% of companies have a formal strategy to achieve closed-loop transportation spend management

Figure I: Freight Spend and Average Cost Per Invoice



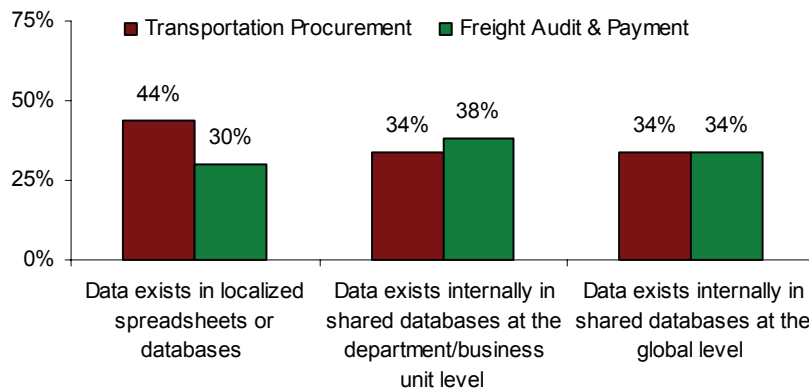
Source: Aberdeen Group, January 2008

Despite these rising costs, 27% of companies are performing only limited analysis of freight spend when beginning their contract procurement process, and another 25% bid out basically the same requirements year to year, with only minor adjustments for new volumes and / or trade lanes.

Challenges to Success

Many companies handle procurement, audit, and payment transactions in disconnected department-level silos. Almost half of the companies surveyed indicated their procurement data exists in localized spreadsheets or databases, exemplifying the silo scenario.

Figure 2: No Central Visibility of Data



Source: Aberdeen Group, January 2008

Breaking away from departmentalized data is not always easy to do - especially if the procurement, logistics, and accounting groups are holding information in applications that are unique to their department.

Achieving Best-in-Class Performance

Better management of transportation procurement and audit and payment is enabling companies to negotiate reduced rates and lower the costs to process invoices. Aberdeen identified "Best-in-Class" companies based on an organization's ability to reduce overall freight spend, as well as to reduce or contain contracted rates and invoice processing costs.

Table I can be used by companies to benchmark their own performance in transportation spend management, and determine if they are a Best-in-Class, Industry Average, or Laggard organization compared to their peers.

Table 1: Top Performers Earn Best-in-Class Status

Definition of Maturity Class	Mean Class Performance
Best-in-Class: Top 20% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ Overall freight spend: decreased year-over-year ▪ Contracted freight rates: >5% decrease year-over-year ▪ Average cost per invoice processed: \$1 to \$10
Industry Average: Middle 50% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ Overall freight spend: 0% to 5% increase year-over-year ▪ Contracted freight rates: 5% decrease to 5% increase year-over-year ▪ Average cost per invoice processed: \$11 to \$50
Laggard: Bottom 30% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ Overall freight spend: >5% increase year-over-year ▪ Contracted freight rates: >5% increase year-over-year ▪ Average cost per invoice processed: >\$51

Source: Aberdeen Group, January 2008

Maintaining the PACE

Best-in-Class companies have found that successfully managing transportation spend requires a combination of strategic actions, organizational capabilities, and enabling technologies that can be summarized in Table 2.

Table 2: Best-in-Class PACE Framework for Spend Management

Pressures	Actions	Capabilities	Enablers
<ul style="list-style-type: none"> ▪ Rising freight costs 	<ul style="list-style-type: none"> ▪ Improve internal ability to analyze freight spend ▪ Improve internal ability to source and negotiate freight rates 	<p>Overall:</p> <ul style="list-style-type: none"> ▪ Procurement and payment are both automated and fully integrated <p>Procurement:</p> <ul style="list-style-type: none"> ▪ Incremental bidding ▪ Multi-round bidding ▪ Expressive bidding <p>Freight audit and payment:</p> <ul style="list-style-type: none"> ▪ Formal root cause analysis for repeat invoice errors ▪ Tracking of total freight cost including accessorials ▪ Electronic invoice presentment and payment with carriers 	<p>Best-of-breed approach:</p> <ul style="list-style-type: none"> ▪ Online sourcing, procurement, bid optimization tools ▪ Transportation management software ▪ Freight audit and payment applications ▪ Spend analytics <p>Supply chain suite approach:</p> <ul style="list-style-type: none"> ▪ Transportation management software suite

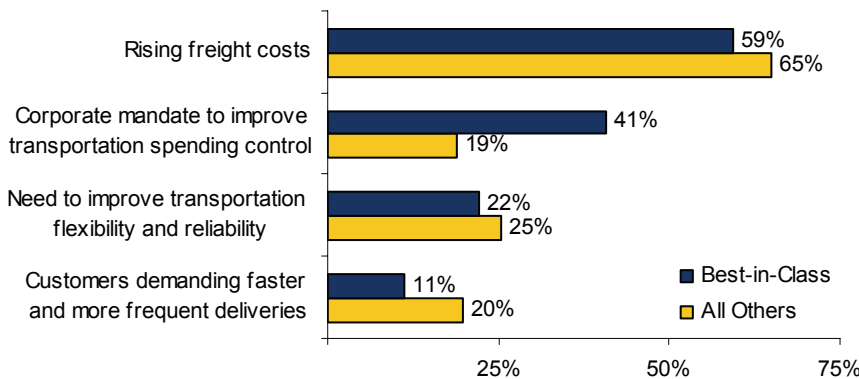
Source: Aberdeen Group, January 2008

Market Pressures

While freight costs are the main looming pressure among companies, Best-in-Class organizations are more than twice as likely as Industry Average and

Laggard companies combined to be pressured by executives to reduce freight spend (Figure 3). When the executive team is open to organizational changes and new processes, transportation initiatives are more successful.

Figure 3: Executive-Level Support Matters



“A key reason for our success has been that senior management has allowed us to select the right tools for the job at hand.”

~ Ann Deming, Transportation Manager for Dry Truckload Freight, Unilever

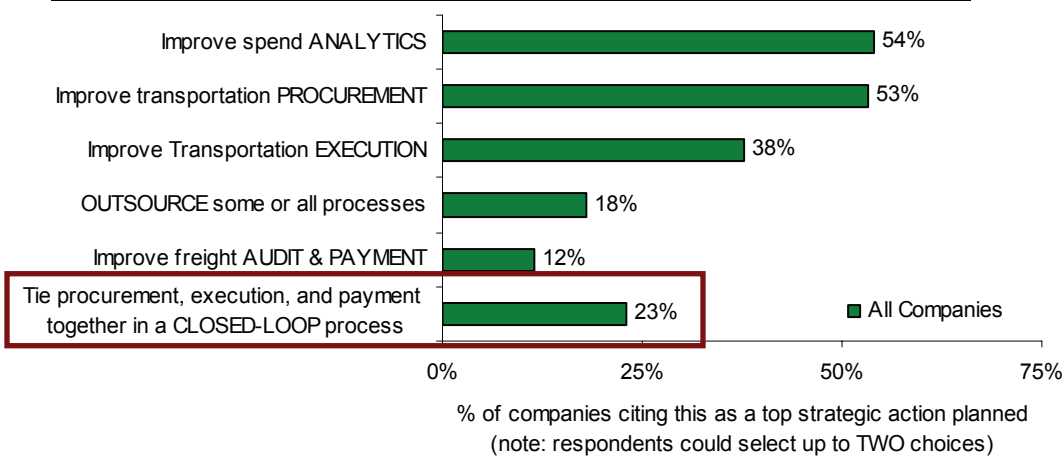
Source: Aberdeen Group, January 2008

Part of the reason so few companies comprehensively improve transportation management is the siloed nature of data, processes, and ownership. It takes a true corporate-wide initiative to unite disparate units and achieve a vision of interdepartmental work-flows.

Actions

In response to rising freight rates, most companies are planning to attack individual pieces of the spend management process, as opposed to focusing on overall process improvement (Figure 4).

Figure 4: Closed Loop Appears on the Radar



Source: Aberdeen Group, January 2008

Most companies feel that improved analytics and procurement will have the greatest affect on reduced rates. An increasing number of companies,

however, are beginning to embrace the concept of "closed-loop" transportation spend management. Chapter Two will explore what this term means and the specific capabilities and enablers that are required to follow through on these actions.

Aberdeen Insights — Strategy

Best-in-Class companies are 58% more likely than their peers to outsource freight audit and payment functionality. Why do top companies display a propensity for outsourcing these functions?

Without some level of automation, auditing 100% of freight invoices can be a labor-intensive process, and administrative costs eat away at whatever monies are recovered due to closer scrutiny of invoices. Companies that don't possess tools to assist with the process either throw labor at the problem, or choose to only audit a small percentage of freight invoices. The former solution is very expensive; the latter fails to identify invoicing errors, and, more importantly, fails to provide an accurate shipment history database that can be used to improve the entire spend management process. A shipment history that only contains total cost on an invoice, and is not broken down by accessorial charges is of limited benefit when analyzing ways to improve network efficiency.

Best-in-Class companies are more likely to be honest with themselves about the importance of the auditing process, and realistic about their own abilities to do it well. Consequently, these companies often choose to outsource freight audit and payment, either as a permanent solution, or as an interim step until such time as they can improve their internal ability to do it. This is a strategy that has produced results, as evidenced by the fact that Best-in-Class companies that outsource freight audit and payment were more likely than their peers to possess the following capabilities through their managed service providers:

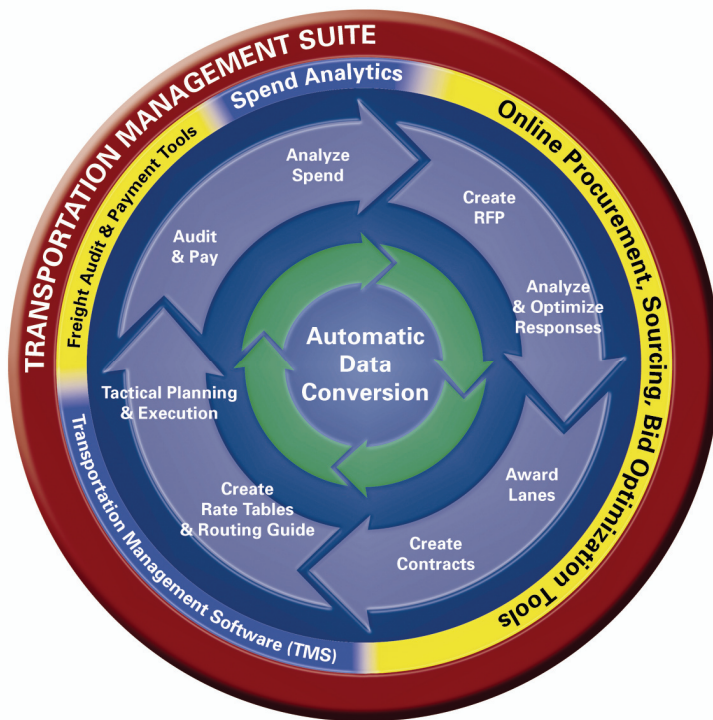
- Practice electronic invoice presentment and payment with carriers
- Practice formal root cause analysis for repeated invoice errors
- Automatically audit invoices against electronic rate tables
- Tracking of total freight cost including accessories (e.g. detention and stop-off charges), fuel charges, and invoice dispute costs

This is a testimony to the fact that managed service providers have made strides in improving their capabilities to serve the market.

Chapter Two: Benchmarking Requirements for Success

A key finding of Aberdeen's research is that companies are departing from thinking about transportation management in a linear format and, instead, as a closed loop, with each step in the process feeding the subsequent ones. Figure 5 depicts the "closed-loop spend management" cycle, with the capabilities shown on the inner circle, and the enabling technologies that drive integration and automation in the two outermost circles. A common, but less effective alternative to the closed-loop concept involves having the electronic flow of data "stop" at the audit and pay step. The model shown below completes the loop by having the shipment history from the audit and pay step flow directly into a spend analytics step, which is then used as a tool to create the request for proposal in the procurement process.

Figure 5: The Transportation Management Wheel



Source: Aberdeen Group, January 2008

In their steps towards closing the loop, Aberdeen found that companies take two distinct approaches with enabling technology: using a best-of-breed model or a single application suite. The best-of-breed model involves using a combination of specialized bid optimization tools, Transportation Management Software (TMS), audit and payment applications, and spend analytics solutions to produce a feature-rich platform of integrated applications. Alternatively, with a Transportation Management Suite, the various steps in the loop are all offered by a single software developer. In

Fast Facts

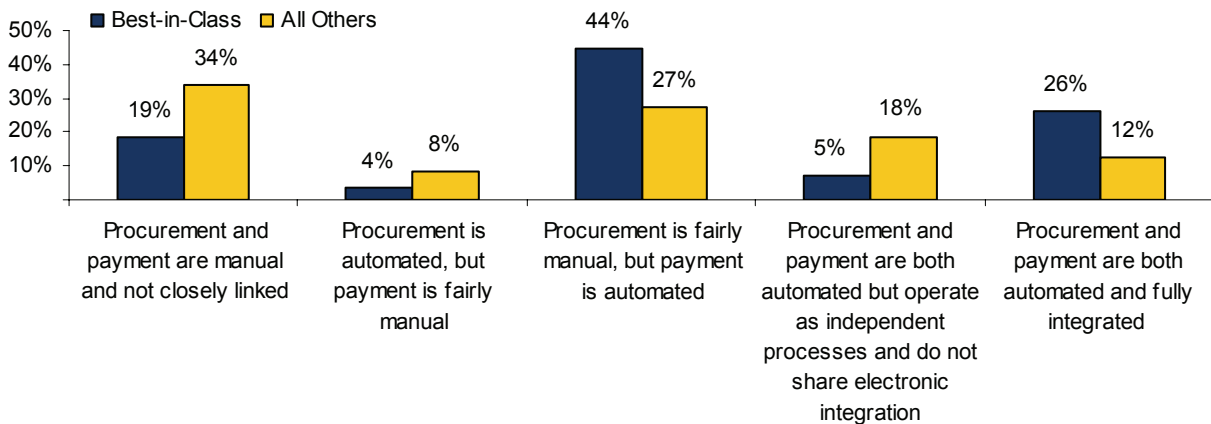
- ✓ Best-in-Class are *twice* as likely as their peers to practice closed loop transportation spend management today
- ✓ Best-in-Class companies are 27% more likely than their peers to allow expressive carrier bidding
- ✓ Best-in-Class companies are 46% more likely than their peers to automatically audit freight invoices against electronic rate tables
- ✓ Best-in-Class companies are *twice* as likely as their peers to perform extensive analysis of historical freight spend data and convert it into a request for proposal

each case, the critical link to the disparate processes is automated data conversion to ensure that there is an efficient information exchange at each step in the cycle.

Closing the Loop

Best-in-Class are twice as likely as their peers to practice closed loop transportation spend management, as evidenced by their achieving both automation and integration of procurement and payment (Figure 6). Automation and integration are key characteristics because they allow data to flow from step to step in repeatable processes. Industry Average and Laggard companies are still more likely to have manual processes in place, or to have automated one, but not both of the key areas of spend management.

Figure 6: Top Companies Practice Closed Loop Spend Management



Source: Aberdeen Group, January 2008

Interestingly, most companies are in a situation where they have automated their audit and payment processes in some way, but have no similar levels of automation in procurement. This is often due to the fact that for many companies, transportation procurement is not even centralized. It is performed at the local or department level based on legacy carrier relationships, and managed through the use of rudimentary tools like spreadsheets. Audit and payment are more likely to have at least a base level of automation due to the fairly widespread use of electronic invoice presentment and payment technology, as well as companies' greater propensity to work with managed services providers in this area.

Achieving a closed-loop system is usually a multi-step transition. Recognizing that procurement and payment are unique functions in most companies, this report expands upon these two primary categories at the front and back ends of transportation spend, highlighting Best-in-Class methods for managing each.

Competitive Assessment

The Aberdeen Group analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories: (1) **process** (the approaches they take to execute their daily operations); (2) **organization** (corporate focus and collaboration among stakeholders); (3) **knowledge management** (contextualizing data and exposing it to key stakeholders); (4) **technology** (the selection of appropriate tools and effective deployment of those tools); and (5) **performance management** (the ability of the organization to measure their results to improve their business). These characteristics (identified in Table 3) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

Table 3: The Competitive Framework

	Best-in-Class	Average	Laggards
Process	Procurement and payment are automated and fully integrated		
	26%	14%	11%
	Allow carriers to suggest alternate routing or service levels		
	52%	46%	26%
	Incremental bidding as requirements change mid-term		
	37%	26%	13%
	Formal root cause analysis for repeated invoice errors		
	44%	35%	13%
Electronic invoice presentment & payment with carriers			
	44%	40%	26%
Organization	Transportation procurement performed at the global level		
	56%	39%	37%
	Freight audit and payment are performed at regional level		
	44%	32%	26%
Knowledge	Data exists internally in shared databases at global level		
	37%	35%	29%
Technology	Use transportation procurement module of TMS		
	30%	21%	18%
	Use freight audit and payment module of TMS		
	25%	21%	11%
	Use specialized freight audit and payment tool		
	41%	32%	5%
Use specialized spend analytics software			
	26%	21%	18%
Performance	Monitored carrier performance		
	85%	44%	40%
	Monitored own performance		
	74%	39%	29%

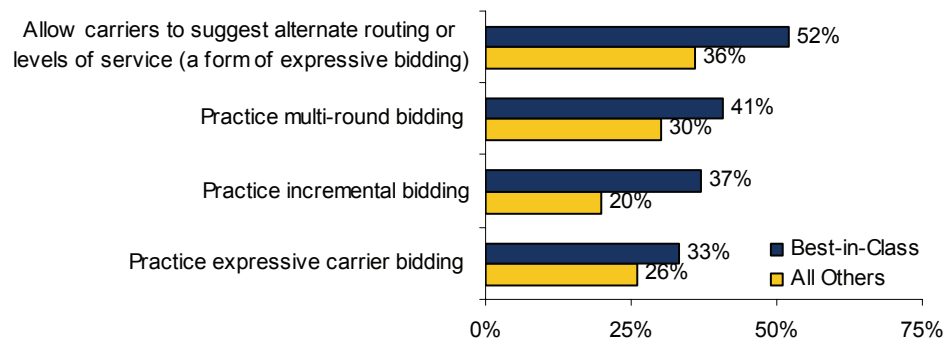
Source: Aberdeen Group, January 2008

Ways to Improve Carrier Bidding

The benefits in automating carrier bidding can usually be realized immediately, and aren't limited to simply reducing freight rates. Companies that have automated the transportation procurement process enjoy ease of communication with carriers, improved bid response quality, as well as reduced costs associated with the bidding process.

Best-in-Class companies are utilizing specific procurement capabilities in order to connect and automate specific procurement steps, such as enabling carriers to suggest alternate routes or levels of service and practicing multi-round and incremental bidding (Figure 7).

Figure 7: How Top Companies Automate Procurement



Source: Aberdeen Group, January 2008

Best-in-Class companies are:

- ✓ 85% more likely than their peers to practice incremental bidding
- ✓ 37% more likely than their peers to practice multi-round bidding

Expressive Carrier Bidding

Simply put, expressive bidding is allowing carriers to say, "If 'x' happens, then we can offer you a discount of 'y'." Allowing carriers to communicate complex volume discounts, and suggest alternate routing and service levels is a high ranking capability among Best-in-Class companies. These types of innovative suggestions from carriers offer companies visibility to transportation and rate options that they might never contrive on their own. In order to control carrier expressiveness, it is important to maintain a two-pronged approach: allow for a level of expressiveness, but moderate it by retaining the ability to compare bids in a uniform manner, even if the rate structures differ from one another. This scenario creates a win-win situation for both parties: carriers are able to have greater control of routing and shipment volume, and with this improved lane utilization, the shipper's rates are lowered.

Carrier expressiveness is most effective when the bid application provides carriers with a user-friendly interface. Rather than simply sending carriers a spreadsheet to fill out, some of the more advanced tools feature a web portal with drop-down menus that allow carriers to respond to a bid, as well as describe complex rating and discounting provisions. In this manner, innovation is encouraged, but data entry still conforms to standards.

Instances of data entry errors are minimized, as is the amount of time required to "clean up" carrier responses and convert them to usable data.

Incremental Bidding

While an annual contracts secure rates and provide a buffer to the impact of rate spikes and lulls, incremental bidding provides a level of flexibility when freight requirements change mid-term.

Some companies rely on spot bidding as their general means to make mid-course corrections. Companies using this unpredictable method of placing each load separately on the market for bidding can, at times, receive freight rates below the average. The drawbacks to spot bidding, however, are significant for many companies; namely, there is an immense amount of work involved in this tactic and it offers no guarantees of rates or capacity.

Best-in-Class companies are 46% more likely to have automated incremental bidding. Incremental bidding allows for individual trade lanes or segments of shipments to be bid out, either to incumbent or new carriers. Shippers still benefit from leveraging their overall shipment volumes where possible, and are able to secure rates and capacity as needs change.

Bid Analysis Automation

In most cases, a company's primary assurance that they are paying competitive rates is to compare a given rate against a carrier's competitor's price (81% of all companies) or a comparison against the carrier's own historical pricing (52%), the latter of which provides limited value. A smaller number of innovative shippers (46%) have begun to compare their rates to those of their peers. This is often facilitated through the use of transportation management software deployed in a Software as a Service (SaaS) model. SaaS software vendors are in a unique position because they can compare a tremendous amount of transportation spend data from multiple shippers. These vendors are usually contractually restricted to only use such data in aggregate, but even in this form it provides a shipper with a window into how their own freight spend compares with their peers in key areas. Furthermore, some vendors have facilitated the formation of councils to allow shippers to collectively negotiate for better rates and performance from carriers. This use of community data is changing the landscape of transportation procurement and putting powerful data in the hands of shippers.

Automating the bid analysis process is practiced by only 29% of companies; however, without it, capabilities like expressive carrier bidding are far less effective. Expressive carrier bids are much more difficult to analyze, since they reflect so many dimensions of discounting. Complex scenario analysis tools are required to navigate through this rich sea of data and determine which course to take.

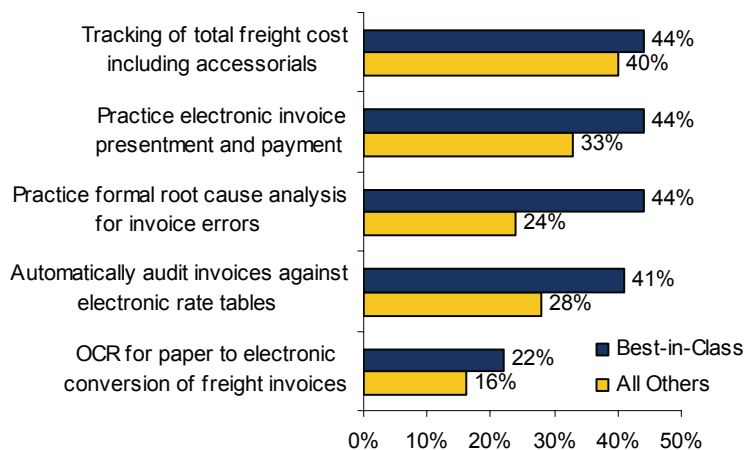
Ways to Automate Freight Audit and Payment

One of the reasons that the freight audit and payment process is so labor-intensive is that it is highly transactional and collaborative. Auditing an invoice demands more back and forth communication with different departments within an organization, and with carriers outside of an organization. Furthermore, a good infrastructure must be in place to handle the key pieces of data involved in automated freight bill payment.

Electronic Audit and Pay

As Figure 8 shows, Best-in-Class companies are 46% more likely to perform a full electronic audit - that is, to be able to compare an electronic invoice against electronic rate tables. Top companies are also 33% more likely to practice electronic invoice presentment and payment (EIPP). This capability is the backbone of automated audit and payment systems, without which the entire process becomes manual. However, top companies have taken these capabilities a step farther.

Figure 8: How Top Companies Automate Audit and Payment



Source: Aberdeen Group, January 2008

Best-in-Class companies are:

- ✓ 83% more likely than their peers to practice formal root cause analysis for repeated invoice errors
- ✓ 46% more likely than their peers to automatically audit freight invoices against electronic rate tables
- ✓ 33% more likely than their peers to practice electronic invoice presentment and payment

Tracking Accessorial Charges

A key component to automated audit and payment is the ability to manage a complex schedule of accessorial charges (Figure 8). When a shipper can track spend at this granular level, it allows for a far more insightful analysis that will have a big affect on the next contract procurement cycle. Nearly half of companies have the ability to audit at this level.

An added benefit to tracking cost components at this level is the improved ability it provides a company to calculated Total Landed Cost (TLC) and total cost to serve a customer. These metrics are a valuable aid to making improved decisions about product pricing and network decision.

Formal Root Cause Analysis

Best-in-Class companies are 83% more likely than their peers to practice formal root cause analysis for repeated errors. This exception analysis capability saves many hours of dialogue between shipper and carrier by addressing the primary reason for the discrepancy.

Self Invoicing

A key opportunity that presents itself once a company automates audit and payment is self invoicing. Instead of waiting for the bill, a company proactively sends a payment to the carrier based on their own calculation of the amount. In this manner, the burden of auditing and recovery is shifted to the carrier, rather than the shipper. Most carriers, however, are willing to make the trade-off. Since this process usually involves a commitment from the shipper for faster payment, carriers also benefit from self invoicing. Twenty-two percent (22%) of companies currently practice self-invoicing.

A key piece of data that can help shippers convince their carriers to embrace such a program is the percentage of carrier-friendly shipments that the shipper makes. However, no more than 20% of shippers track this information with any regularity. When carriers are convinced that a shipper is doing its part to contain accessorial costs, they are often more willing to allow that shipper to self-invoice, as the percentage of charge-backs after a carrier audit should theoretically be reduced.

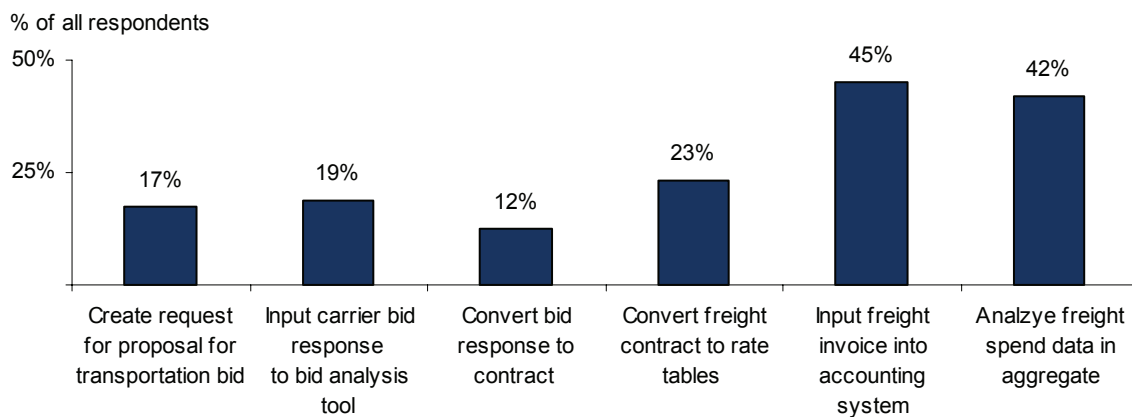
Percentage of shippers that track carrier-friendly shipments:

- ✓ Driver wait times: 20%
- ✓ Driver-assist usage: 7%
- ✓ Driver-friendly trips: 5%

Managing the Hand-off

As noted earlier, closed-loop spend management can sometimes involve using multiple software applications, and others times only one. The key to making the process work is the automated conversion of data from one step to the next. Figure 9 illustrates the level of automation that companies currently have, showing most companies have limited levels of procurement automation. Even in the more advanced area of audit and payment, levels of automation are still below 50%.

Figure 9: Levels of Automatic Data Conversion



Source: Aberdeen Group, January 2008

Manually converting data from one step to the next and from one system to the next creates a time-consuming process with high potential for errors. The following list identifies some of the productivity killers that can creep up without some level of automation in the data conversion process:

- Creating RFPs and reworking any standardization misalignments or misused templates when bid responses are received.
- Sorting through bids on spreadsheets, and inputting data to a bid analysis tool
- Converting bid responses to carrier contracts
- Manually entering contracts into a rate table / routing guide in the TMS

The goal of a closed loop process is to have each step interact with the next, with data transferred automatically and accurately to the appropriate parties. The next section discusses some of the larger data conversion points in the cycle.

Bid Award to Contracts

Awarding a carrier a contract is the first handoff in the cycle. The costing information is final at this point - the carriers have been selected and rates negotiated. An electronic process to convert bid responses ensures data is accurately transferred from award to contract.

Companies should be concerned with more than just the accurate transmission of rates at this step. A secondary benefit of contract automation is document control. As contract language, terms, or conditions are changed either by the internal legal department or by the carrier, it is important that a contract is developed from the most recent template to avoid costly errors.

Contract Conversion to Rate Table

The request for proposals, bid analysis, lane awards, and contract creation are often handled in the same application. Once the contract is developed, the information can enter the first key interface with a different application - the TMS that is usually the repository of the rate tables and routing guides. If there are errors leading up to this phase, the potential for the rate table to be fed incorrect data is increased.

While manually converting contracts to a rate table consists largely of data entry, the individual doing the entry must have a high level of familiarity with the complexities and nuances of each individual carrier contract. Accessorial charges must be correctly tabulated, and the business rules governing when conditional discounting is applied must be incorporated. If a company is using spreadsheets or taking data from one system to a different system, the process involves finding the carrier, rate, volume requirements, and other specifications data and accurately keying that into the transportation

department's system. If a rate table contains errors, this will corrupt the planning or execution phases.

Depending on a company's technology footprint, this process can be fairly seamless if the procurement tool and TMS operate on the same platform. The same business logic that is built into the bid analysis tool is easily applied to the contract creation and then to the rate tables. Best of breed software vendors that offer point solutions as opposed to an entire suite of applications often have professional services teams that assist with converting the business logic surrounding the rate structure from one system to the next.

Invoice Audit and Payment

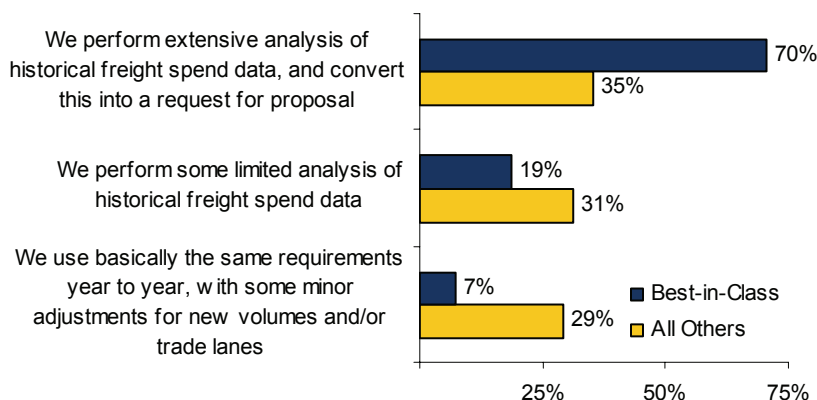
For this step to function in an automated fashion, several key pieces of information must be processed or stored electronically:

- Carrier and shipper must be able to transmit electronic invoices
- An electronic record of open shipments must exist in the shipper's TMS to compare against the carrier's invoice
- An electronic rate table must exist to audit the charges against

Audit and Pay to Creation of Request for Proposal

Utilizing historical spend data to create a more effective procurement process is the final bend in the metal that closes the loop and creates a set of fully interdependent processes. It's notable that Best-in-Class are twice as likely as their peers to perform extensive analysis of historical spend data and convert it into an RFP, as seen in Figure 10.

Figure 10: Top Companies Have Better Spend Analytics



Source: Aberdeen Group, January 2008

It is not advisable to base a procurement process solely on the previous year's spend, regardless of the quality of the data. Supply chains evolve over time, as distribution centers are consolidated, customer service requirements change, and new products are introduced. It is important to

Methods of Invoice Transmission

- ✓ EDI (direct system-to-system)
- ✓ Web portal (provided by shipper)
- ✓ Manual paper-to-data conversion (can be outsourced to managed service provider)
- ✓ Optical character recognition (OCR) for paper-to-data conversion

Fast Facts

- ✓ Best-in-Class companies are twice as likely as their peers to perform extensive analysis of historical freight spend data and convert it into a request for proposal
- ✓ Industry Average and Laggard companies are four-times more likely than Best-in-Class companies to simply bid the same transportation requirements year over year with only minor adjustments

plan for and model various scenarios rather than simply arbitrarily adjusting last year's freight spend to account for growth.

Companies analyzing historical freight spend gain visibility to both rate data as well as performance data. For example, a shipper can gain visibility into a carrier's on-time delivery, on-time pick-up, invoice accuracy, and the quality of data transmissions. Shippers are also able to track their own performance to contract, which for many companies includes checking against volume commitments, payment times, and driver-friendly shipments. This is powerful information to have during carrier negotiations.

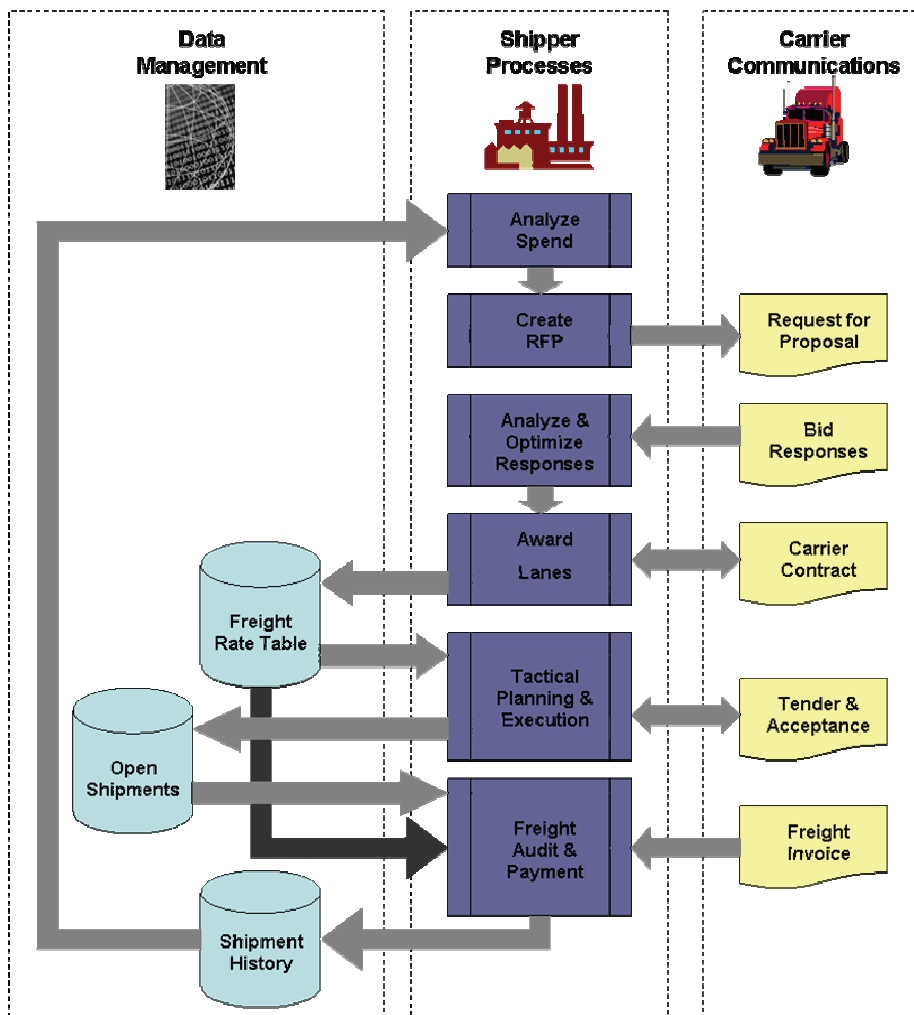
Aberdeen Insights — Don't Forget Non-Production Spend

For many enterprises, optimizing non-production spend is an overlooked opportunity for cost containment, especially in the area of parcel shipping. When office staff need to send expedited correspondence, samples, and other materials, they often utilize a parcel carrier that has been contracted with at the local, rather than the enterprise level. This type of renegade spend can be significant over the course of time, and frequently is not factored into an enterprise-level spend analysis. Companies optimizing transportation procurement should capture volume levels for this non-production spend, and use the full force of their purchasing power to negotiate favorable rates in this area.

Enabling Technology

Companies that have had success in reducing contracted freight rates or that have lower invoice processing costs than their peers have utilized a wide array of enabling technology. It is notable that the most common tools used to manage both processes are still spreadsheets. However, spreadsheets alone can never create a true closed loop process from procurement to payment and back again. Figure 11 illustrates a typical way in which transportation data is housed, and the manner in which the logistics applications interact with that data. This basic structure must exist at some level to achieve closed loop transportation spend management. The key differentiator for companies is **where** the three databases on the left side reside—are they in a single application suite, or are they in several different applications?

Figure 11: Data Model for Transportation Spend Management

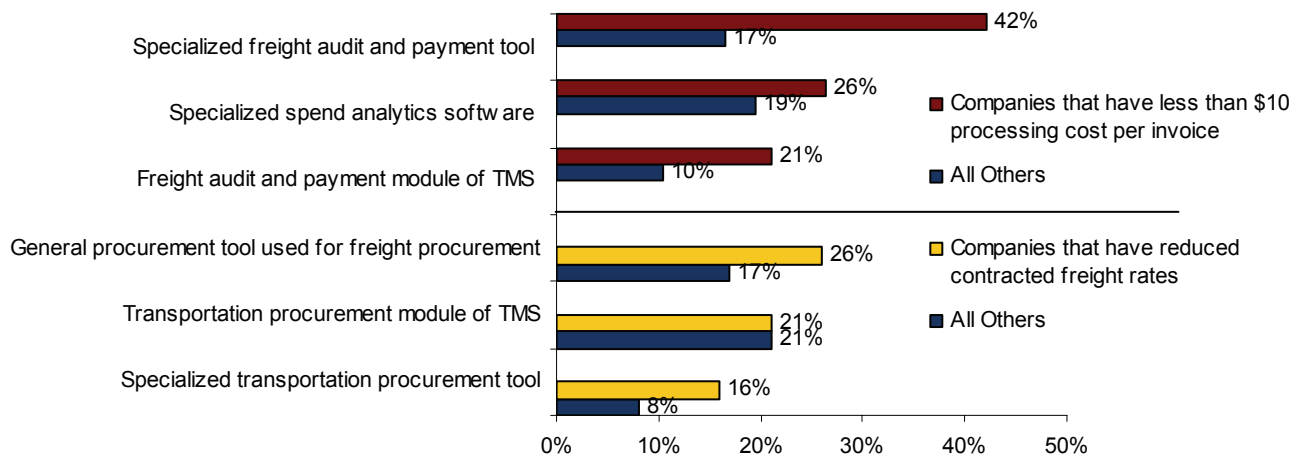


Source: Aberdeen Group, January 2008

Spreadsheets do not allow for common access of data across disparate processes, and are, at best, a means of performing rudimentary data analysis at individual steps in the process.

Figure 12 shows current adoption levels for technologies that enable improved transportation spend management. Spreadsheets have been omitted from the chart for clarity, though it should be noted that significant numbers of Best-in-Class, Industry Average, and Laggard companies are using them, either as a stand alone tool or in addition to more complex applications.

Figure 12: Essential Tools in a Closed Loop System



Source: Aberdeen Group, January 2008

Three Success Stories - Three Different Approaches

The decision of whether to adopt a best-of-breed architecture, a TMS Suite, or hiring a managed service provider should be carefully considered. These options all lead to the same "closed loop" result, but through different means. Consider the examples of three different companies that each implemented closed-loop transportation spend management, but took very different approaches to achieve the same goal.

Fast Facts

- ✓ Companies that have less than \$10 processing cost per invoice are more than twice as likely as their peers to use a specialized freight audit and payment tool.
- ✓ Companies that have reduced contracted freight rates are twice as likely as their peers to use a specialized transportation procurement tool

Aberdeen Insights — Technology

Best-of-breed solutions may be tailored for the needs of a particular industry, or offer specialize features that fill a unique requirement. Companies choosing this route should be aware that they will need to take greater responsibility for application integration. Conversely, Transportation Management Software Suites may offer all of the required capabilities from a single vendor, but may not have certain best-of-breed features. There is no right or wrong approach - but companies should understand the trade-offs with each method and be comfortable with them.

A company with limited resources might consider working with a vendor that also offers managed services-one that has the ability manage the day-to-day processes initially or can help run the first carrier bid. Then, if it is desired, the shipper can wean itself off of the services and bring the processes in-house.

Unilever Wins with Best-of-Breed Approach

The best of breed approach is best represented in the example of Unilever, a \$58 billion USD consumer goods manufacturer. In 2001, the company was managing carrier contract procurement in a decentralized process, with each of the three corporate divisions running a separate bid process using

manual tools. With \$185 million in freight spend for dry truckload shipments in North America, they could no longer afford to ignore the tremendous cost savings associated with optimizing this process.

That year, the company embarked on a plan to create a closed loop process through a best-of-breed technology platform involving three key vendors. An Online Procurement tool from a sourcing vendor provides a web-portal that allows carriers to make “expressive bids,” specifying volume breakpoints and other key events that will trigger a rate discount. The tool analyzes multiple scenarios for how Unilever can award the freight, based upon allocating volume in various ways. Unilever chooses how to award the business, and the data is converted to a carrier contract with Unilever’s legal verbiage and sent to the carrier. Upon acceptance, the contract is converted to a rate table that resides on the Online Procurement tool.

For tactical planning and execution functions, Unilever uses an On-Demand TMS system from a different vendor. This system accesses the rate table in the Procurement Tool, makes the day-to-day mode and carrier selection decisions, and tenders the loads to the carriers. After tendering, an open-shipment record with a Bill of Lading resides in the TMS.

When the freight carrier submits an invoice to Unilever, it is sent to the company’s managed service provider for freight, audit, and payment. The payment provider has access to two of Unilever’s key databases—the rate table in the Procurement Tool, as well as the Open Shipment history in the TMS. These two pieces of information, coupled with the carrier invoice, are all that are required for the provider to audit each invoice and approve it for payment. On completion, a record is created in the shipment history database that lists each invoice, and is broken down by each financial variable that made up the final rate, including accessorial charges and fuel surcharges. This information is then passed back to the Procurement Tool and is used to manage a more effective bid processes the next time around.

In the first bid that was managed with the new technology, the company realized 20% savings over the previous year’s contracted rates! Furthermore, Unilever has seen consistent savings each year, with the most recent bid returning an 8% savings.

“A key reason for our success has been that senior management has allowed us to select the right tools for the job at hand,” says Ann Deming, Unilever’s Transportation Manager for Dry Truckload Freight, a 28-year veteran of the company.

“Our next step is to move towards self-invoicing to further reduce our invoice processing costs. We’re confident that our network of technology partners will work with us to make this project a success as well.”

~ Ann Deming, Transportation
Manager for Dry Truckload
Freight, Unilever

Pinnacle Foods Chooses Application Suite; Starts With Audit and Payment

Pinnacle Foods is a large food manufacturer with household brands such as Duncan Hines, Vlasic, and Swanson. Prior to 2006, the company had been completely outsourcing its transportation execution as well as audit and payment to a managed service provider, but was only enjoying limited success. Shortly after hiring a new Vice President of Transportation in 2006,

the company chose to set out on the path of closed-loop transportation spend management to better handle their \$125 million USD in annual spend.

Unlike Unilever, Pinnacle chose the application suite approach, with a single software vendor providing the various components in the spend management wheel. Pinnacle chose a TMS with a Software as a Service (SaaS) model, and began the project by implementing tactical planning and execution. Because Pinnacle had a closed-loop vision in mind, the company decided to proceed next with improving the audit and payment side of the wheel. The Return on Investment (ROI) in this area might be less than it would be to improve procurement, but Pinnacle knew that the data that resulted from a better audit and payment process would allow them to realize those procurement savings to an even greater level—they would just have to wait a little longer to see it. The company chose to bring their outsourced audit and payment process in-house by using a freight payment module from their TMS provider. Pinnacle chose to implement self-invoicing. After the carrier submits an electronic proof of delivery to Pinnacle via the online system or through EDI, they are given an additional five days to submit any accessorial charges that may have been incurred. At that point, Pinnacle's TMS calculates the amount the carrier is due and makes a payment. Carriers are normally paid net 28 days, but Pinnacle agrees to pay within seven days if the carrier is willing to offer a discount for such services. The results of this process have been significant—Pinnacle has saved \$120,000 USD annually over paying a third party provider to perform this service, and they have not had to commit any additional administrative labor to audit and payment.

To close the loop, Pinnacle chose the same TMS provider to host their first ever national transportation bid, scheduled to be completed in late March, 2008. Since the company already automated their audit and payment process, a rich database of freight spend data exists so that Pinnacle can host a very accurate bid process. In addition, their on-demand TMS provider is making use of community spend data to identify areas where Pinnacle is paying rates that are much higher than their peers. The TMS provider was able to bring an additional 70 carriers to the bid table who might offer more competitive rates in those areas.

“For us, it made sense to use a single technology platform for as much of the process as possible,” says Gregg Bostick, Vice President of Transportation for Pinnacle. “Our existing carriers are already communicating with us electronically through our TMS, so it was logical for us to use the same set of tools to host our freight bid. We're optimistic that we can save \$3 to \$4 million dollars in reduced contract and accessorial rates.”

Papa John's Chooses Application Suite; Starts with Procurement

Papa John's International, Inc. operates and franchises over 3,000 pizza delivery and carryout restaurants in the United States and other countries.

In 2007, the company decided that it needed to be more efficient in its handling of its inbound freight shipments. Like Pinnacle, Papa John's chose the application suite approach, but decided to begin the process at very different part of the wheel. The first step for Papa John's was to implement a TMS system to transition their inbound freight from supplier-controlled pre-pay and add contracts to collect shipments that they control directly. Simultaneous to implementing this functionality, Papa John's began laying the groundwork to manage a large-scale carrier bid. How would they do this without the benefit of an extensive database of detailed historical spend?

"Fortunately, our vendors and internal reporting tools were able to provide us with a great deal of spend data for their portion of the business," says Eric Hartman, Senior Director of Logistics for Papa John's. "We then worked with our software vendor to aggregate that data and perform an analysis of how to best structure our bid."

Papa John's invited 50 carriers to bid on their overall inbound freight requirements, and hosted an initial round of bidding to evaluate each carrier's cost structure and service capabilities. Through a web-based bidding system, the top twelve carriers were able to suggest optimization strategies to Papa John's, based upon the company guaranteeing volume levels in key lanes. Based on these suggestions, Papa John's awarded freight contracts in June of 2007. By the end of the year, they had already realized 15% savings in overall freight spend over the previous year.

"We're excited about what we've done so far," says Hartman. "The next project for us will be expanding EDI communication and then we plan to automate the audit and payment process."

"Fortunately, our carriers were able to provide us with a great deal of spend data for their portion of the business. We then worked with our software vendor to aggregate that data and perform an analysis of how to best structure our bid."

~ Eric Hartman, Senior
Director of Logistics for Papa
John's International

Chapter Three: Required Actions

Whether a company is trying to move its performance in transportation spend management from Laggard to Industry Average, or Industry Average to Best-in-Class, the following actions will help spur the necessary performance improvements:

Laggard Steps to Success

- **Map out the entire chain.** Even if the plan is to start by implementing just one of the links in the cycle, the entire chain of processes must still be mapped out and planned for. First, define the ideal organization structure and roles. Who will control what data and how will that data be shared? Who will own the various processes that make up transportation spend management? The majority of Best-in-Class companies (56%) manage procurement on a global level, while freight audit and payment is either managed regionally (44%) or globally (41%). Best-in-Class companies are more likely than their peers to house transportation data in shared databases at the global level.

Next, determine which technology approach your company will take - the best-of-breed approach or the application suite approach. It is helpful to have a dialogue with both types of vendors - those that offer application suites, as well as best-of-breed providers. For best-of-breed providers, make sure to explore the vendors' integration abilities and their capability to achieve automated data conversion in a closed loop. For application suite providers, make sure to focus on features and functionality to make sure that your business's unique needs can be fully supported by the vendor you choose. The tools for this initiative will control and convert data, allow departments and trading partners to collaborate, and provide key decision-making tools, so it's vital to do your homework at this step.

- **Implement the first link.** There are two distinct scenarios a company can follow in taking the initial step. The first involves starting with implementing audit and payment. This scenario should be followed by companies that are "spiritually" committed to the idea of closed-loop spend management at the corporate level. Most companies instead are focused on improving the procurement side of the process first, because the greatest savings are perceived to be achieved through reducing contracted freight rates. This is usually true, but without accurate data to feed the procurement process, much of the effort will be expended inefficiently. Visionary companies will put the effort first into the audit and payment process, reap the initially modest returns here, but later reap the

big rewards of managing a highly efficient global bid process with extremely accurate spend data.

- The second scenario for starting down the path of process improvement involves beginning with transportation procurement. If a company hasn't made that holistic commitment to the closed-loop process, often the only way to garner project approval at the executive level is if the short-term ROI is compelling, which is usually true of a procurement initiative. Companies taking this approach have found it helpful to work with a vendor with ample consulting capabilities to initially guide them through managing the bid and optimizing it. Such vendors can help fill some of the gaps in the spend data by drawing on aggregate data from other companies to approximate costs in different trade lanes. Large dollar savings can come from this process, which can then fund the subsequent initiatives to optimize the remaining links in the loop.

When audit and payment optimization follows, future savings are in the pipeline once a company begins to use the improved data to run a more accurate bid process in year two. This approach may result in a longer overall time to achieve closed loop spend management which can make it a less ideal scenario, but still a viable choice for companies struggling to get executive level approval.

Industry Average Steps to Success

- **Practice contract management.** Assuming historical freight spend data is available, companies should utilize this information to put a scorecard system in place. Best-in-Class companies view on-time delivery (93%), invoice accuracy (67%), and on-time pick up (56%) as the primary metrics to measure carrier performance. Companies should also measure tender acceptance rates (the percentage of time that a carrier agrees to handle a load when requested). Only 30% of companies measure this, despite the advantages that can be derived from it during carrier negotiations as well as in selecting which carriers should even be considered. Carrier data quality is also measured by only 34% of companies, despite the fact that it is a key challenge to success in spend management.

Internal score-carding offers similar advantages, by enabling a shipper to track its own commitment to contract. If a company does not track its adherence to volume commitments, significant discounts can evaporate. Additionally, proving that a shipper operates a driver-friendly organization with a quantified record is an important point to make in carrier negotiations to help obtain more favorable rates.

- **Close the loop.** A number of companies have already made great strides in optimizing and automating individual links in the spend management loop. For most organizations, the remaining break in

the loop occurs when shipment history is not properly analyzed to feed a more efficient bid process. Among Best-in-Class companies, only 26% are effectively closing the loop in this way, but it is still twice the levels of Industry Average and Laggard organizations. Remember, manual transportation processes involve information crossing departments and being painstakingly converted from one step to the next. Automating and closing the loop removes most of the data entry and conversion, and allows each step to benefit from improvements and innovation in the previous one.

Best-in-Class Steps to Success

- **Practice self-invoicing.** Thirty-seven percent (37%) of Best-in-Class companies plan to acquire this capability in the next 24 months. When a shipper has access to contracts and open shipments, self-invoicing is a service that benefits both shipper and carrier. The shipper is not allocating resources to audit invoices and the carriers receive on-time payments.
- **Practice community benchmarking.** On-demand TMS models allow providers to maintain an extensive database of community freight spend and what service levels are being delivered on by carriers in return. Benchmarking against this data can identify opportunities for savings and performance improvement that might not be revealed through other sources.

Aberdeen Insights — Summary

Closed loop transportation spend management is no small undertaking, but it is an important concept that should be the end goal of any company struggling to contain logistics costs. In order to avoid tunnel-vision, and focusing on only one link in the loop, it is necessary to have an executive level sponsor to tie disparate departments and processes together. Two very viable technology approaches are available (best-of-breed and application suite) and companies should evaluate both routes before deciding on the solution that is the best fit for their needs. The benefits to having a closed loop process range from reduced freight spend to lower administrative costs in the accounts payable department-key accomplishments for any supply chain executive. While their peers focus on cost cutting in more traditional areas of logistics like load planning and routing guide compliance, innovative companies can achieve Best-in-Class status by focusing on transportation procurement and payment and tying these processes together in an efficient closed-loop process.

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Appendix A: Research Methodology

Between December, 2007 and January, 2008 Aberdeen examined the use, the experiences, and the intentions of more than 300 enterprises engaged in transportation spend management.

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on spend management strategies, experiences, and results.

Responding enterprises included the following:

- *Job title / function:* The research sample included respondents with the following job functions: logistics/supply chain (66%), procurement (16%), business process management (4%), and information technology (3%). Job titles included manager (40%), director (22%), vice president (12%), and senior management (CEO, COO, President; 10%).
- *Industry:* The research sample included respondents from the following industries: consumer goods (24%), transportation/logistics (12%), food/beverage (12%), chemicals (12%), retail (8%). Some 27 other industries were also represented to a lesser degree.
- *Geography:* The majority of respondents (75%) were from North America. Remaining respondents were from Europe (16%), Asia-Pacific (6%), Middle East/Africa (2%), and Latin America (1%).
- *Company size:* Fifty percent (50%) of respondents were from large enterprises (annual revenues above US \$1 billion); 41% were from midsize enterprises (annual revenues between \$50 million and \$1 billion); and 9% of respondents were from small businesses (annual revenues of \$50 million or less).
- *Headcount:* Ten percent (10%) of respondents were from large enterprises (headcount between 1 and 99 employees); 30% were from midsize enterprises (headcount between 100 and 999 employees); and 60% of respondents were from small businesses (headcount greater than 1,000 employees).

Solution providers recognized as sponsors were solicited after the fact and had no substantive influence on the direction of this report. Their sponsorship has made it possible for Aberdeen Group to make these findings available to readers at no charge.

Study Focus

Responding executives completed an online survey that included questions designed to determine the following:

- √ The process capabilities which exist in various areas of transportation spend management
- √ The extent to which these capabilities are automated and integrated in a closed-loop process
- √ The technology used to enable these capabilities

The study aimed to identify emerging best practices for transportation spend management, and to provide a framework by which readers could assess their own capabilities.

Table 4: The PACE Framework Key

Overview
<p>Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:</p> <p>Pressures — external forces that impact an organization’s market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</p> <p>Actions — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product / service strategy, target markets, financial strategy, go-to-market, and sales strategy)</p> <p>Capabilities — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)</p> <p>Enablers — the key functionality of technology solutions required to support the organization’s enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)</p>

Source: Aberdeen Group, January 2008

Table 5: The Competitive Framework Key

Overview	
<p>The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance:</p> <p>Best-in-Class (20%) — Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance.</p> <p>Industry Average (50%) — Practices that represent the average or norm, and result in average industry performance.</p> <p>Laggards (30%) — Practices that are significantly behind the average of the industry, and result in below average performance.</p>	<p>In the following categories:</p> <p>Process — What is the scope of process standardization? What is the efficiency and effectiveness of this process?</p> <p>Organization — How is your company currently organized to manage and optimize this particular process?</p> <p>Knowledge — What visibility do you have into key data and intelligence required to manage this process?</p> <p>Technology — What level of automation have you used to support this process? How is this automation integrated and aligned?</p> <p>Performance — What do you measure? How frequently? What’s your actual performance?</p>

Source: Aberdeen Group, January 2008

Table 6: The Relationship Between PACE and the Competitive Framework

PACE and the Competitive Framework – How They Interact
<p>Aberdeen research indicates that companies that identify the most influential pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute those decisions.</p>

Source: Aberdeen Group, January 2008

Appendix B: Related Aberdeen Research

Related Aberdeen research that forms a companion or reference to this report include:

- *Winning Strategies for Transportation Procurement & Payment*; Beth Enslow; February, 2007
- *Integrated Transportation Management—How Best-in-Class Companies View the World Differently*; Ian Hobkirk; June, 2007
- *The International Transportation Management Benchmark Report*; Ian Hobkirk; October, 2007

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.

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