



Supplier Logistics Management
Leveraging Technology and Supplier Relationships to Gain
Competitive Advantage

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**SUPPLIER LOGISTICS
MANAGEMENT – The Next
Strategic Layer of
Competitive Advantage**

Supply chain executives are challenged by senior executives to find new and innovative ways to reduce costs.

Through improved supplier logistics management, supply chain executives can provide senior management with the silver bullet they are seeking.

Supply chain executives are in the hot seat given the flat economy and a slow down in revenue growth. They are challenged by senior executives to find new and innovative ways to reduce cost, while still meeting customer needs. However, in today's customer-centric environment, meeting customer's expectations is not a competitive advantage, but a fundamental necessity of existence. Delivering products on time, at a higher level of service, is now a standard expectation, leaving limited room to leverage performance as a sustainable competitive advantage.

To reduce costs and gain a competitive advantage, supply chain executives need to focus on supplier management inefficiencies in their supply chain. Ignoring upstream supply chain activities can be costly. For instance, it has been estimated that the food and beverage industry loses \$7 to \$12 Billion per year through incorrect data flows between suppliers and retailers.¹ Additionally, when European consumer goods and food retailers lost more than \$17 billion in inventory last year, they could only explain about 41% of these losses.² Results like this point to the strategic advantage supply chain executives can obtain by focusing on improving their fragmented and complex supplier logistics networks. Through improved supplier logistics management, supply chain executives can provide senior management the silver bullet they are looking for to minimize operational inefficiencies, reduce costs and gain a sustainable competitive advantage.

Technology Enables Supplier Logistics Management

THE INTERNET

Until the availability of the Internet, supply chain executives did not have the opportunity to successfully implement supplier logistics solutions. Electronic Data Interchange (EDI) provided the primary means for companies to integrate with large suppliers. This option turned out to be cost prohibitive and stifled its rapid adoption across small to medium size suppliers.

¹ 'Kraft In Sync with Shaw's Supermarkets' Consumer Goods Technology, Ralph Bernstein, June 2001

² 'Unexplainable Losses', Traffic World, John Parker, June 4, 2001

The Internet provides companies and their suppliers with an affordable platform to share and access data in a real-time environment.

To complicate matters, EDI did not provide real-time information transfer and, because the process was heavily dependant on batch driven algorithms, mission critical information would often arrive too late for companies to make time-sensitive decisions.

The Internet provides companies and their suppliers with an affordable platform to share and access data in a real-time environment. Using languages like XML, the Internet lets companies extend their communication footprint across their entire supplier base in a flexible and inexpensive manner. Common communication platforms, like EDI and Fax, do not allow companies to communicate real-time with their suppliers. Companies can now be alerted immediately when supply chain disruptions occur and take the necessary corrective action to rectify the problem without impeding the movement of goods.

Net-Native applications are built and designed for the Internet and this architecture is fundamental for companies to manage supplier relationships.

NET-NATIVE APPLICATIONS

When identifying supplier logistics solutions, companies must look for platforms that are Net-Native. Unlike Web-enabled client-server applications, Net-Native applications are built and designed for the Internet. This type of architecture is fundamental for companies to manage their supplier relationships. Net-Native applications provide significant benefits:

1. Centralized information platform for multiple parties to access

Supply chain information exists, however it is often decentralized. In today's environment companies are required to search carrier websites to track shipments and request pickups. Net-Native applications provide a single data source from which companies can manage their supply chain. The centralized information platform also extends itself to be a hub where companies can manage and monitor their partner activity.

The centralized information platform of a Net-Native application provides a single data source from which supply chains can be managed.

Net-Native applications are built to accommodate the many entities in a company's supply chain.

2. Built with the intention to scale to multiple companies

Net-Native applications are built with a multi-tenant data model. Multi-tenancy allows entire communities to operate within a single instance. Existing web-based, client-server applications were developed with the concept of one customer per application install. These applications must be re-designed to allow for multi-tenant data model in order to accommodate the many entities in a company's supply chain.

Net-Native applications remove a company's dependency on scarce and costly UNIX and database administrators.

3. Inexpensive and easy to deploy

Net-native applications are less disruptive and require minimal involvement from in-house IT personnel for deployment. Because Net-Native companies provide these resources, as well as the hardware and software necessary to run the application, they remove a company's dependency on scarce and costly UNIX and database administrators. According to Forrester Research, the cost to implement traditional applications is approximately \$1,090,000, while the typical Net-Native application implementation cost is just \$240,000.³

Most training for Net-Native applications can be conducted on-line without costly implementation consulting.

Since Net-Native applications were designed for the Internet, a significant emphasis has been placed on the user experience. User-Interfaces are straightforward and most training can be conducted on-line without the assistance of costly implementation consulting.

These factors result in rapid application deployment, mitigation of risk and quick return on investment for companies.

4. Long-term planning not needed for upgrades

Upgrades to Net-Native applications occur overnight and product enhancements are received immediately.

All companies on Net-Native Applications access the same code base. Custom coding is limited and upgrades to existing applications occur overnight and without company resources.

³ Net-Native Apps Emerge, Stacie McCullough Kilgore, Forrester Research, March 2001,

New features are the focus of Net-Native applications due to the expediency of upgrade and enhancement delivery.

Companies receive product enhancements immediately, leaving time for Net-Native application vendors to focus on building new features rather than focus on supporting multiple installations of the code base. According to Stacie McCullough-Kilgore of Forrester Research, “Sixty percent of client/server development efforts is spent supporting prior releases or other platforms, while Net-Native applications focus development resources on rapidly adding new features rather than supporting prior releases and other platforms – so clients get access to new features in one-third of the time it normally takes to upgrade the client/server counterpart.”

Supplier Logistics Management Targets Seven Fundamental Issues

Supplier Logistics Management (SLM) offers the opportunity for considerable improvement in efficiency as well as cost reductions.

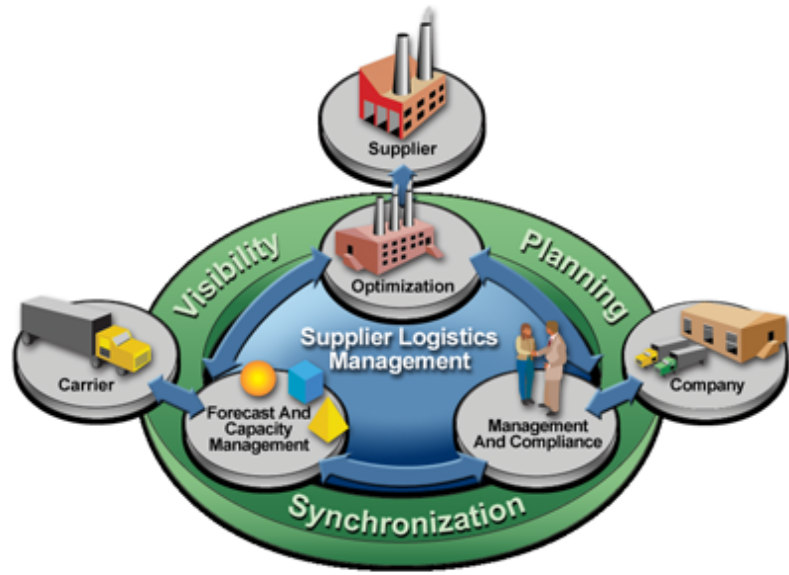
With the Internet as the road and Net-Native applications the vehicle, supply chain executives have the opportunity to drive significant efficiency improvements and cost reductions through Supplier Logistics Management (SLM).

SLM enables companies and their suppliers to successfully synchronize information.

SLM enables companies and their suppliers to successfully synchronize information; thereby, allowing companies to extend supply chain optimization and process flows to their supplier base. With SLM in place, companies can target seven fundamental supply chain issues facing the management of successful supplier fulfillment:

1. Order Visibility and Event Management
2. Inbound Planning and Optimization
3. Information Synchronization
4. Supplier Management and Compliance
5. Available-to-Promise
6. Forecasting and Capacity Management
7. Resource Scheduling

SLM allows companies to proactively identify risks upstream; giving time to react prior to shipment arrival.



ORDER VISIBILITY AND EVENT MANAGEMENT

Today, purchase order visibility is primarily a truck arriving at a company's distribution center and identifying order discrepancies at the dock door. SLM seeks to eliminate this fortune telling visibility by allowing companies to proactively identify risks upstream, giving time to react prior to shipment arrival. This would allow companies to cut cycle times by as much as 33% and reduce inventory by as much as 30%, both while improving in-stock customer service⁴. "Inaccurate information that arrives late, or not at all, has traditionally been the Achilles' heel of supply chain management resulting in excess inventory, inefficient processes, higher costs, and unhappy customers. Therefore, having better visibility, along with exception management and workflow capabilities, allows companies to respond quickly and effectively to changes, and, in light of today's highly-dynamic business environment, this ability ultimately translates into a competitive advantage", states Adrian Gonzales, a Senior Analyst with the ARC Advisory Group.

Through SLM, companies can cut cycle time by as much as 33% and reduce inventory by as much as 30%.

⁴ Consumer Goods Technology, Maximizing Your Return on Logistics, May 2001

SLM provides complete purchase order visibility throughout the entire supply chain path.

Using SLM, companies issue suppliers purchase orders with desired order quantities and delivery dates. The suppliers are able to see and act upon the information related to the purchase order. Any changes or adjustments the supplier makes to the purchase order triggers a proactive event notification to the company's buyers. The process carries forward to suppliers creating shipments from the purchase orders, tendering shipments and transporting shipments. Along the entire supply chain path the company has complete purchase order visibility and is notified of any discrepancies from what was transmitted to the supplier. Allowing buyers to be proactive instead of reactive and to troubleshoot purchase order issues with the supplier prior to delivery, eliminates surprises when orders arrive.

INBOUND PLANNING AND OPTIMIZATION

Buyers are able to be proactive instead of reactive and can troubleshoot purchase order issues early on through SLM.

Prior to SLM, real-time systematic inbound planning and optimization was not a reality. Companies were forced to plan inbound shipments based on stale and dated information from suppliers. Many company's models were not scalable, requiring their suppliers to call shipments into dispatch centers for carrier routing information. This inefficient approach excludes opportunities for consolidation and continuous moves, resulting in a rudimentary view of the supply chain instead of a holistic one.

Centralized information through SLM provides companies with a complete picture of their inbound shipments.

SLM provides companies a central view of all shipments from its suppliers. "Prior to SLM, companies did not have the tools to effectively take into account the wide range of interactions between its suppliers", states Karl B. Manrodt, assistant professor Georgia Southern University, "SLM expands visibility and creates an information hub to coordinate inbound logistics processes, allowing successful transportation optimization. This change is one that benefits both shippers and carriers."

The merging of inbound and outbound activities into a centralized platform gives rise to continuous move opportunities.

Centralized information provides companies with a complete picture of their inbound shipments, allowing them to optimize smaller LTL shipments into cost-effective truckloads. Companies like Dollar General, who have already implemented consolidation programs, experience cost savings of 20% on their inbound freight costs.⁵

Linking inbound and outbound shipments and carriers allows companies to increase asset utilization.

Two related factors, lower truckload rates and the minimization of carriers and trailers arriving at a facility, reduce the labor requirements of facilities and contribute to cost savings. In addition, as companies merge inbound and outbound activities onto a centralized platform, continuous move opportunities arise, allowing companies to achieve a lower transportation rate by linking inbound and outbound shipments and carriers to increase asset utilization.

INFORMATION SYNCHRONIZATION

By providing a single communication platform, SLM allows suppliers and companies to see synchronized information across their networks.

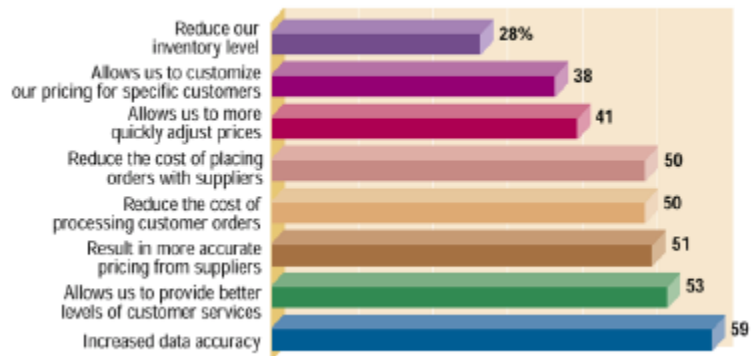
The lack of information synchronization currently plagues the relationship between suppliers and their customers. Studies have shown 30% of the data shared between suppliers and companies is incorrect.⁶ In fact, a 2000 Food Logistics survey highlighted the most frequent benefit resulting from the adoption of e-technology was 'increased data accuracy'⁷ (see figure 1). Existing error prone communication vehicles, including phone, fax and keystrokes, result in data that is often mis-entered and mismatched in the various supplier and company systems. SLM bridges this gap by providing a single communication platform, allowing suppliers and companies to see synchronized information across their networks. A two-way view into the purchase order and shipment notifies all parties of changes and discrepancies, eliminating the asynchronous flow of purchase order information from company to supplier and shipment information from supplier to company.

⁵ 'Delivering Value at Dollar General', Inbound Logistics, May 2001

⁶ 'Kraft In Sync with Shaw's Supermarkets' Consumer Goods Technology, Ralph Bernstein, June 2001

⁷ 'The Coming e-Supply Chain- How the Internet will shape the food/CPG Industry', Food Logistics, Ronald Margulis and Mina Williams, July/August 2000

Figure 1: Perceived Benefits From E-Supply Chain Adoption



Source: Food Logistics and University Of Maryland

SUPPLIER MANAGEMENT AND COMPLIANCE

SLM brings efficiency to suppliers and their customers by the leveraging of a customized on-line, inbound routing guide.

Historically, supplier management and compliance have been an administrative and labor-intensive headache for both companies and their suppliers. Companies typically devote teams of individuals to ensure suppliers comply with corporate routing guides, ordering instructions and appointment scheduling. Suppliers, on the other hand, are flooded with frequently updated paper based routing guides from multiple customers. (For example, one large retailer sends its' suppliers routing guide updates as frequently as every two weeks.) In addition, long hours are spent on the phone waiting to schedule appointments. SLM brings efficiencies to both suppliers and their customers by reducing overhead for both entities. By leveraging a customized on-line, inbound routing guide, paper correspondence is rendered obsolete and inbound carrier selection and shipment tendering is completely automated.

Through appointment scheduling automation, suppliers and carriers can schedule pickup and delivery appointments without human intervention.

Through appointment scheduling automation, suppliers and carriers, can schedule pickup and delivery appointments without human intervention. On average, shippers and consignees spend upwards of 40% of their time on the phone scheduling and managing appointments⁸. (As an example, one large grocery chain frequently keeps suppliers on hold for upwards of an hour to schedule an appointment, while one large retailer does not answer appointment requests of suppliers until the next day.)

⁸ Overdriveonline, Martin Labbe Associates Study for Truckload Carriers Association, August 1999

Technologies such as integrated voice response and PDA give carriers the opportunity to reschedule appointments as necessary.

By adopting technologies such as integrated voice response and PDAs, carriers have the opportunity to reschedule appointments when they anticipate pickup or delivery problems due to weather, traffic or other operational problems. Mutual benefits exist as companies become more flexible to free dock space. In addition, for carriers, excessive wait time due to late pickups or deliveries is eliminated. Companies enjoy improved labor management at facilities as well as strengthened relationships with carriers.

Excessive wait time for carriers can be virtually eliminated.

Automating routing and appointment scheduling processes allow companies to successfully measure and monitor supplier and carrier routing guide and appointment compliance. By proactively identifying and addressing potential weak points, these types of metrics enable companies to keep a pulse on their supply chain. Taking full advantage of the compliance benefits that SLM offers enables companies to redirect employees from tactical operations, such as appointment scheduling and vendor compliance, to more strategic operations such as process improvements and customer care.

Fully utilizing the compliance benefits that SLM offers allows companies to redirect employees from tactical operations to those more strategic.

AVAILABLE-TO-PROMISE (ATP) COMMITMENTS

Accurate delivery dates can be easily determined through SLM by factoring supplier sourcing locations and transportation transit and service restrictions.

The goal of ATP is to ensure that companies make real-time service commitments to customers through a quick evaluation of supply chain constraints. Too often companies commit to order delivery dates without considering all supplier constraints. Transportation service restrictions are typically not considered when committing to delivery dates. This overlook results in a trickle-down effect that communicates unrealistic delivery dates and creates a disruption in the flow of goods; sending ripple effects down the supply chain. SLM circumvents this issue by factoring supplier sourcing locations and transportation transit and service restrictions to determine accurate delivery dates. By providing accurate transit and service requirements, companies can produce an achievable plan with compliant supplier dates and attainable customer commitments.

FORECASTING AND CAPACITY MANAGEMENT

A dynamic stochastic mode enables companies to successfully create daily, monthly, quarterly, and yearly equipment forecasts.

SLM solutions can be leveraged to manage carrier commitments; ensuring flawless execution.

Without an information hub capturing actual order and shipment history, companies struggle to determine seasonal equipment requirements and actual shipment volumes when negotiating carrier contracts. Through a dynamic stochastic mode, companies capture all information related to inbound order and shipment flows and provide the tools to enable the successful creation of daily, monthly, quarterly, and yearly equipment forecasts. The output of this model allows companies to plan for seasonal capacity requirements and ensure managers are equipped with adequate information to negotiate favorable capacity commitments and contract terms. Upon the creation of these highly effective forecasts, managers can leverage Supplier Logistics Management solutions to manage carrier commitments; ensuring flawless execution and minimizing potential service disruptions.

RESOURCE SCHEDULING

Automated appointment scheduling offers logistics managers a clear picture of the resources required for a day's work – enabling appropriate staffing.

With improved order visibility, companies can see, in real-time, when assets will arrive; allowing procurement of continuous moves and use of private fleets.

When limited to no visibility of inbound activities, companies often struggle to determine the labor requirements for their facilities as well as the assets (such as containers, trailers and railcars) available in their supply chain network. By leveraging appointment scheduling, inbound consolidations and order visibility aspects of SLM, companies can more accurately forecast their resources and better identify available assets in their network. Automated appointment scheduling offers logistics managers a clear picture of the resources required for a day's work. This enables appropriate staffing; thereby, eliminating costly overtime and nonproductive time. Inbound consolidations help to minimize the number of power units and trailers arriving at a facility. This reduces the number of labor resources required for a facility. Finally, with improved order visibility, companies now have the ability to see, in real-time, when assets are actually going to arrive. This visibility assists a company's outbound planners in the efficient movement of assets through the company's supply chain, allowing them to take advantage of continuous move opportunities and private fleet utilization.

Recommendations

SLM solutions offer supply chain executives the next generation of supply chain technology.

Because SLM is still in its infancy, it offers companies a tremendous competitive advantage. By implementing an SLM solution, supply chain executives will experience a dramatic impact on the bottom line, including efficiency gains in process management, increases in inventory velocity and reductions in inventory and transportation costs. Executives will observe a cultural shift among their employees as employees begin to consider the impact of their actions, not only within their own organization, but also across all suppliers. This holistic supply chain view will improve supplier relationships and ultimately improve the process of delivering products to market. Supplier Logistics Management offers supply chain executives the next generation of supply chain technology which will enable their companies to soar beyond competition.