innovative logistic providers. Few logistic providers are in a better position than the port companies to take advantage of the circumstantial opportunities. Greater operational control over what has traditionally been a fragmented transport infrastructure can only enhance services already provided to customers. It may be however, that necessity rather than desire will dictate the future control of the rail system.

The continued focus of New Zealand’s economy on forestry, agricultural and horticultural products will ensure the survival of most of our regional ports. Though international trends foretell rationalisation in pursuit of economic advantages through economies of scale. It has become apparent that many regional ports in New Zealand will continue to play a key role in particular import and export trades that will not traditionally fit a centralised theme.

About the Author

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Internet-Driven Logistics: Practical Applications for the Forest Products Industry in North America

Richard Vlosky

Overview

Internet-driven logistics (eLogistics) has been receiving quite a bit of attention in recent years as supporting business strategies that can dramatically improve competitiveness and efficiency. There has been much written on the way in which the Internet is changing the way logistics business is carried out. The big players such as the integrators, the international freight forwarders and shipping companies have been rushing to bring out new software systems to enable customers to take advantage of Internet access in the supply chain process. (Cox 2000, TimesNet Asia Web Page: http://web3.asia1.com.sg/timesnet/fetpindx.html)

Companies require complex multi-user systems and broad based physical infrastructure capabilities while receiving high quality services at low cost and with no distraction to core business activities. The goal is to eliminate phone calls, faxes, update requests, lost documents, and repetition that are all-too-often present in the freight industry. By tying everyone together in the shipping process, the Internet can dramatically improve the shipping and tracking process. (FreightWhiz.com 2000- http://www.teamlogisticscorp.com/introa.htm).

eLogistics systems can provide shipment tracing from booking to delivery instantly linking shippers, agents, brokers and consignees 24 hours a day. Specific functions that can be addressed on an Internet environment include:

- Fulfillment services
- Multi-user systems and physical infrastructure
- Inbound supplier management
- Warehousing and inventory management
- Delivery
- Returns management
- Generating bills of lading, arrival notices, etc. directly from the system, instead of having to attach scanned documents.

- Improved customs functionality for brokers.
- Creating more search options to look for shipments faster.
- Motor carrier management and optimization
- Claims management
respectively. This has implications for eBusiness as the majority of early adopters are typically larger companies which are intimately intertwined can lead to a number of structural business benefits. Both the supplier and customer benefit by eLogistics. For example, supplier benefits can include:

- Increased efficiency, cost reduction and information accuracy in channel systems are the primary goals of eLogistics management. Specific objectives are to reduce inventories and channel costs. The goal is NOT to shift inventory holding costs to other channel members, but rather to reduce system costs whereby all channel members gain. A second goal is to increase responsiveness to customers in the marketplace. In an increasingly competitive world, responsiveness is not a luxury, it is a prerequisite for survival. A third overall goal of eLogistics is to acquire flexibility in production (supplier), delivery (supplier or carrier) and replenishment (customer) capabilities. These goals, which are intimately intertwined can lead to a number of structural business benefits.

- An assured source of supply
- A greater supplier focus
- Demand predictability
- Investments in productivity
- Technology sharing and synergy with customers
- Cycle time reduction
- Error-free communication
- Improved quality
- Gains in productivity
- Increased profits

In addition to many of the benefits listed for suppliers, customer benefits can include:

- Management coordination
- A greater customer focus
- An assured source of supply

This paper discusses eBusiness and Internet applications to logistics between channel members in the wood products industry in North America drawing on studies conducted by the author.

EBusiness and eLogistics and The North American Forest Products Industry

EBusiness was studied in the context of the forest products industry in the United States and Canada. One thousand solid wood products and 300 pulp and paper companies were surveyed. Respondents were asked to discuss their current or planned eBusiness strategies and the impacts that they believe eBusiness will have with customers and suppliers.

In the pulp and paper sector, market pulp, printing paper and specialty papers were the products most cited. With regard to solid wood product respondents, lumber, by far, was the most frequently manufactured product.

Fifty-eight per cent of respondents said that large companies were their primary customer base. This included wholesalers, distributors and retailers, at 22.4 per cent, 21.9 per cent and 13.2 per cent of respondents, respectively. This has implications for eBusiness as the majority of early adopters are typically larger companies that often do business with larger, technology-capable customers.

Use of eBusiness

Sixty per cent of respondents said their companies do not currently use the Internet to conduct business. Of these, 56 per cent said their company does not have plans to develop such capabilities in the future. Larger companies were more likely to have already adopted Internet technologies and are also more likely to do so in the future.

Implementation of eBusiness by respondents has taken place in the recent past. 89.4 per cent respondents developed eBusiness technologies in the past three years. Earlier implementation (before 1996) was done by larger companies, typically lead adopters of technology. Funding for eBusiness is relatively low with 44 per cent of respondents spending less than $10,000, primarily for WWW home page development. Nearly 8 per cent spent more than $250,000 for more sophisticated applications such as Internet-EDI and eCommerce.

EDI (Electronic Data Interchange) is the movement of business data electronically between or within firms (including their agents and intermediaries) in a structured, computer “processable” data format. EDI permits data to be transferred without re-keying from a computer-supported business application in one location to a computer-supported business application in another location. eCommerce (electronic commerce, or selling products and services online) represents a new way of bringing vendors and customers together. The convenience and flexibility of the Internet, its suitability for micro-marketing, reduced operating costs, and the ability to integrate with Just In Time (JIT) inventory systems achieves significant savings in inventory management, provides cost benefits, enhances customer relationships, and overall is often a more effective way of selling products.

Current and planned use of eBusiness applications

Respondents were asked to identify eBusiness practices that they currently use or plan to use in the next year. Customer contacts were the most frequently cited practice closely followed by having a home page and marketing by 47 per cent, 45 per cent and 44 per cent of respondents, respectively. The next tier of applications included vendor contacts (33 per cent of respondents), product promotion (32 per cent), product or price inquiries (31 per cent) and sales to customers (eCommerce) (31 per cent). Although one tends to think of using the Internet for sales to customers, purchases from suppliers is also done. Eighteen per cent of respondents indicated that they currently, or planned, to make purchases from vendors.

Currently, only a small percentage of forest products industry companies in North America are using the Internet for logistics purposes. At the bottom of the list...
are order administration activities such as shipping notices, order tracking, inventory management and overall logistics.

Respondents were asked to give specific examples of how their company has leveraged eBusiness to their benefit. The wide range of responses indicates how flexible eBusiness technologies are in adapting to the diverse needs of companies. These responses are not hypothetical but rather indicate how forest products companies have the ability to take full advantage of eBusiness opportunities including market segmentation, promotion, distribution, pricing, information management, and improving customer satisfaction. From the over 100 responses received, below is a list of those that deal with logistics.

Examples of How Respondents Benefit From eLogistics:

- Customers can look up order and shipment status on-line.
- Reduced inventory by broadcasting available stock to customers via Internet.
- Better inventory control because of better info on inbound product locations & ETA.
- Increased market share in large developing accounts by managing customers inventory.
- Shorter lead time.
- Truck line information system. This provides web browser accessible information to trucking line scheduled to ship our outbound finished product. This has made it much easier for us to look at bad planning and loading internally and greatly reduced the work involved associated with communicating with the 20+ trucking lines that service our largest facility.
- We set up an inventory system at a customer’s warehouse.
- Insure mill spare parts inventory (categories with high rotation) by automatic re-order.
- Cost of searching out year 2000 solutions has been reduced through extensive use of Internet.
- Accessing information from suppliers greatly reduces lead-time as well as allowing better price shopping.

Conclusion

eBusiness is one means for developing competitive advantage in an ever-changing world. Logistics is one set of activities in the value-chain that can benefit greatly from the Internet. The forest products industry in North America is slowly moving up the Internet adoption curve for higher order business applications. As is the case with all major industrial business-to-business sectors, eventually eLogistics will possibly become simply logistics.

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