

CHAPTER 6

FOREST PRODUCTS IN THE ELECTRONIC MARKET PLACE

Highlights

- The Internet, as a new market channel, has the potential to change the traditional way forest products are traded.
- Electronic marketplaces allow customers to search for suppliers and vice versa.
- Companies use the Internet to enhance corporate image, improve customer and supplier relations, and to improve competitive advantage.
- Many forest products companies now have individual homepages on the Internet, however few forest products are currently traded electronically.
- Concern for security is the primary reason for reluctance to adopt electronic commerce.
- *Extranets* offer additional advantages of improved, secure, communication with a company's customers, suppliers, vendors, shippers and other partners.

Secretariat introduction. Information for this chapter came from a variety of sources, most of them from the World Wide Web (WWW), but also from a study by Dr. Richard Vlosky¹ and a study by Mr. Jarkko Taskinen².

6.1 Introduction

Like companies in other sectors, forest products companies have used electronic means to streamline and improve their trading relations for some time. For instance many use electronic data interchange (EDI) to communicate internally and with customers and suppliers. Many now have websites to advertise themselves and their products. This chapter concentrates on a more specialized feature, the use of the Internet for trading – finding buyers and sellers, agreeing on prices and terms of sale, etc.

A new marketing channel, the trade of wood products via the Internet, has made considerable strides since being mentioned in the last two *Annual Market Reviews*. While many forest products companies have established websites on the WWW, a homepage alone is an advertisement of the company and its products and services, and an invitation to communicate. In addition to the sawn hardwood trading site mentioned last year (and below), today many more sites exist where sellers offer their stocks of wood products and buyers can place orders. Called “electronic commerce”, “E-business”, “eBusiness” or simply “ebiz”, this new trading channel offers significantly more than advertising; it offers a new means of marketing forest products in the ECE region and around the globe.

The electronic marketplace can bring together both small and large buyers, sellers and agents on a level playing field. At the present, it seems that major forest products companies are watching from the sidelines, maintaining their current sales channels, augmenting their current communication channels with e-mail, and waiting for future opportunities. The complexity of the sites, shown through examples below, influences the degree of transactions: simple homepages are announcements of availability, while actual transactions take place in electronic markets.

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Despite the growing importance of electronic commerce, today the vast majority of forest products trade worldwide is conducted by conventional means, i.e. through personal contact and via telephone and fax. However, eBusiness is expanding rapidly. Nearly all of the Global Fortune 500 companies, which include six forest products companies, are currently using or developing Internet-based business systems to augment current channels (Vlosky 1999). And as these “marketplaces” are in their infancy, the next few years will likely show rapid growth, which will continue well into the next millennium.

The most important thing to understand about eBusiness is that it is first and foremost about business, rather than technology. Technology, while important, is only one aspect of electronic commerce. The real challenge lies in managing the changes in business strategies and institutional processes that must take place for enterprises to take advantage of eBusiness (Stewart 1999). Application extensions of the Internet include “intranets” for sharing information within the corporation and “extranets” for sharing information with customers, suppliers, shippers, bankers and other partners.

Electronic commerce took off in the 1980s with the introduction of electronic data interchange (EDI) and the introduction of barcoding for automated data capture. EDI is a technique that allows the electronic exchange of structured data between companies such that administrative and logistical processes can be automated. EDI has shown a tremendous potential to simplify and automate transactions between companies such as by reducing operating costs, the re-entry of data, data entry errors, and delays in stock selection and delivery. However, it is mostly implemented by large companies due to the considerable initial effort required to establish EDI links. EDI's use within the timber industry apparently is not widespread.

With the rapid spread and acceptance of the Internet, a new paradigm in electronic commerce is taking shape. Electronic commerce on the Internet has the potential to be a lot more than just a means of conducting transactions. It creates a new business environment, different from any seen so far, because it lets a business put its entire set of processes and practices online (Barksdale 1999). This provides an unprecedented opportunity to improve the total performance of the business processes.

The primary vehicles for eBusiness are telecommunication networks and the Internet. The key issue in communicating in electronic commerce is only partly of technological nature. It lies more in the fact that the partners are outside the traditional framework of the commercial entity. Analyzing the relationships

between the commercial entity and the components of its external environment, such as suppliers, banks and regulatory authorities, will allow identifying the factors that are important to the business objectives. The opportunities provided by the information and communication technologies – business relevance of the technology – are then implemented in support of the core business.

6.2 What types of sites are available on the WWW for forest products trade?

To date sites on the web can be classified as homepages, bulletin boards or electronic market places.

(i) Homepages

A homepage can be a simple announcement of the existence of a company with information about its mission, its products and services and a means to contact the company by e-mail, fax or telephone. A simple homepage may be no different in function than an advertisement in a newspaper or trade journal. Many forest products companies have their own pages, and these companies are frequently linked together at association pages. There are even sites that link member associations, an “umbrella” site for associations and their members. A web user who does not wish to bookmark individual companies can maintain lists of groups of companies through these association lists, which has another advantage of being more up-to-date with the individual sites' addresses.

(ii) Electronic bulletin boards

Some bulletin boards where forest products can be advertised, or customers can post their needs, are now available on the WWW. An example would be the Puupörssi site (“tree exchange” in English) which is a notice board for small companies and private individuals to list their products and services and consumers to list their wood requirements. At this site there are listings of companies and customers but the bulletin board users have the responsibility to make the links. Timber Web is another example.

(iii) Interactive forest products trading sites

At the present the top of the hierarchy of sites are interactive trading sites. A few sites now exist where wood products are actually traded and because of new developments it would be impossible to include a comprehensive listing. Two examples are the International Timber Exchange (*International Holzboerse*) and Hardwood.Net. Another example where sawn softwood is sold is the JSOP Woodmarket where buyers and sellers find each other in an

electronic market place. (While theoretically it does not matter where in cyberspace the marketplace is located, this site originates from Finland). Buyers announce through a series of questions the type of products being sought and their specifications. From the other side, sellers announce, in this case, sawnwood that is available. If the grade, species and other specifications match, the buyer and seller are put in contact with each other to negotiate price and terms of delivery.

At Woodmarket confidentiality is maintained by using encoded passwords to allow a buyer to conduct simultaneous negotiations with several sawmills that have been suggested according to the product criteria submitted to the database. Conversely, sellers reportedly can offer lots of sawnwood for sale, and buyers can electronically bid, to which the sawmill responds electronically to confirm the order. Electronic forms are available for inquiries, tenders, counter offers and confirmations as well as buyer and seller profiles.

Other advantages of the electronic marketplace:

- It is an online, real-time commercial trading tool which reduces transaction time and associated costs;
- Cost of services are charged based on time used while in the system, plus fees for electronic messages and forms;
- Purchasers can rotate stocks faster;
- Trading is not dependent on traditional working but distribution follows traditional channels;
- The system allows quick response to changes in price, delivery or other conditions (Woodmarket.Net).

Another example for sawn hardwood is called HardwoodSearch. Sawn hardwood buyers browse a marketplace developed by the *Hardwood Market Review* in Charlotte, North Carolina, USA. After selecting the species and quality of sawnwood desired, a buyer is given a list of supplies and suppliers available and then the buyer "submits" a request which is simultaneously e-mailed and faxed to advertisers. In turn, advertisers contact the prospective buyer to complete the transaction.

At the International Timber Exchange, a multilingual (7 languages) site, buyers can choose roundwood, sawnwood, veneer, various services and even energy wood.

6.3 North American electronic commerce

(i) How many forest products companies conduct electronic business in North America?

One study³ showed that 40% have Internet technologies in their companies and of the 60% who do not, half do not plan to develop capabilities in the future (Vlosky, 1999). This is an important consideration for companies trying to reach that "third" of the North American market by electronic means. Another study found that 64% of forest products companies surveyed use the Internet for business, up sharply from 43% in 1997 (*Southern Lumberman*, 1998). The 1998 survey indicated that primary Internet usage was divided between use for e-mail (31%), marketing purposes (22%), learning about new equipment and supplies (19%), establishing a website (20%), and monitoring lumber prices (8%). Internet usage varied greatly between softwood and hardwood producers, with 80% of the softwood producers surveyed reporting Internet use, compared to only 46% of hardwood producers. Of the total respondents to the 1998 survey, 36% process hardwoods, 25% softwoods and 36% process both. Half of the companies are privately owned, 33% are family owned, and 8% are publicly owned.

(ii) Cost of electronic commerce

66% of the respondents in the Vlosky survey had spent less than \$50,000 on purchasing and installing Internet technology, while 7% spent over \$250,000. This wide range can be attributed to different strategies. Companies can establish simple websites or "corporate calling cards" for less than \$10,000 or can spend considerably more to undertake sophisticated applications such as EDI and electronic business. There was a positive correlation between company size and expenditures for eBusiness technology, with smaller companies showing more limited expenditures on information technology.

(iii) Why North American companies are enthusiastic about eBusiness

Companies using electronic commerce felt that it improved competitive advantage through:

- improved customer contact (gaining new and retaining current customers);
- increased sales;
- more access to and easier purchases from vendors;

³ "Internet-based eBusiness in the forest products industry" by Dr. Richard Vlosky, 1999.

- faster communication with and responsiveness to partners;
- enhanced corporate image (Vlosky, 1999).

In addition, ebiz permits customers to compare product specifications and prices and to reduce transaction time (*Timber & Wood Products*). Another advantage is that an Internet marketplace is not constrained by traditional office hours. This should equally be an advantage for trading with different time zones, such as Asia, North America and Europe.

Respondents to the Vlosky study did not anticipate reduced administrative costs as a result of using the Internet. Rather, the focus was on competitive advantage in the market.

(iv) Impediments to implementation of electronic commerce

The prime obstacle to forest products companies embracing electronic commerce is concern for security and confidentiality (Vlosky 1999). Many trading sites have avoided this problem by using the web as the first step in the marketplace where buyers and sellers are brought together. Market-oriented sites ask buyers what they are searching for and then seek to fulfil their needs. Alternatively, a seller announces the products available and buyers respond via e-mail, fax or telephone for those goods which meet their needs.

Some of the strongest impediments to Internet implementation were found to be a lack of understanding about the benefits of ebiz and a lack of adequately -trained information technology staff.

6.4 Electronic commerce in Europe

British timber importers and agents have the intention of using Internet as a business channel in the future (Taskinen, 1999). Currently they have fewer company websites than their American counterparts, but the United Kingdom trade was found to be conducting a greater share of its actual trade by electronic means at this time than those in the United States.

Europeans have different reasons for using Internet, including information searching, fast communication and doing business (Taskinen, 1999). New users expressed more concerns about security and confidentiality than experienced users. Another reason found for using the Internet was that companies wanted to establish direct customer contacts. Companies anticipated future uses would be for conducting business transactions and establishing new contacts.

In Europe there is no correlation between company size and Internet use (Taskinen, 1999). Indeed one of the advantages to the small player is that the WWW provides a level playing field. A small company in a remote country can appear, via its website, to be the same size as the largest multinational forest products company.

82% of European executives recognize the strategic importance of e-commerce, but only 39% are actually taking action (report by Anderson Consulting cited in *Timber & Wood Products*). The report stated that companies are hesitating to conduct electronic business for lack of international regulations. In North America, the opposite approach, i.e. lack of government regulations, has been credited for spurring electronic commerce.

6.5 The role of the ECE Trade Division in electronic commerce

The UN/ECE Trade Division is home of the United Nations Centre for the Facilitation of Procedures and practices for Administration, Commerce and Transport (UN/CEFACT).

Underlying the work of UN/CEFACT is the understanding that the growth and scope of world trade can only be achieved through the convergence of facilitating business processes and the opportunities provided by the information and communication technology. Therefore, the Centre works to reduce international trade barriers and lowering transaction costs by producing standards and recommendations to simplify and harmonize business processes. In particular, UN/CEFACT is responsible for the development and maintenance of the international standard for EDI, UN/EDIFACT, which provides the essential rules for electronic business.

UN/CEFACT's major contributions to electronic business are encapsulated in recommendations for best practices and standards for process related. They can be categorized into instruments in support of establishing the ground rules for the digital marketplace, and work to enhance the legal environment for electronic business.

Concerning the ground rules for the digital marketplace, there are currently 26 UN/CEFACT Trade Facilitation recommendations, five of which have become ISO standards. Some of them have their purpose to reduce the complexity of existing procedures while others strive to harmonize transaction data or the methods used for transmitting the data.

To enhance the legal environment for eBusiness, the Legal Working Group of the Centre analyses current legal processes and issues, identifies legal constraints that adversely impact electronic business and recommends possible solutions. The Group makes recommendations with regard to best practice and the removal of national legal and commercial practice barriers to electronic business. It works closely with UNCITRAL in order to ensure that the practical needs of users are taken into consideration in such recommendations.

6.6 The future

This new electronic business channel is in its infancy and the means by which communication and business are conducted today will undoubtedly change in the next decades. Still there has been dramatic growth over the last few years in the exchange of information within the forest products sector thanks to the Internet. The Internet has evolved quickly from being an information tool to being an electronic marketplace which facilitates commerce.

For some companies ebiz has become a new means of doing business. With the current restructuring of the forest products industry, resulting from mergers, buyouts and take-overs, the new corporations will eventually rely on Internet links, including intranets and extranets. Firms engaged in extranet marketing activities will need to actively maintain and enhance their product offerings to keep pace with the technological advances of the competition.