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The Paper Industry: Strategic Alliances, Joint Ventures, and Electronic Commerce Are Reshaping Our Business Models

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Businesses must have a global perspective in order to identify opportunities and threats of today's marketplace. Although warding off threats from global competitors is necessary, firms should also actively seek to penetrate foreign markets. The optimal choice of entry mode depends on the strategy of the firm. One way for a firm to enter into a foreign market is to create a strategic alliance. A global strategic alliance is an agreement among two or more independent firms to cooperate for the purpose of achieving common goals such as a competitive advantage or customer value creation (Harris, Moran, & Stripp, 1993). The term "strategic alliance" is often used loosely to embrace a variety of arrangements between actual or potential competitors.

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Firms ally themselves with other organizations for various strategic purposes. An alliance allows firms to share the fixed costs (and associated risks) of developing new products or processes (Hill, 2000). It is also a way to bring together complementary skills and assets that neither company could easily develop on its own. In addition, it can make sense to form an alliance that will help the firm establish technological standards for the industry that will benefit the firm. However, if a firm is not careful, it can give away more than it receives.

A strategic alliance may take the form of a collaborative effort, licensing of technology, or joint venture (Berryman, 1998). A collaborative effort occurs when two companies agree to work together to the mutual benefit of both. Licensing technology is affected when one company licenses its production or service methods to another firm. A joint venture occurs when two independent firms agree to jointly produce a product or service. A joint venture is the most frequently utilized approach to gain access to foreign markets (Berryman, 1998). Today, joint ventures and strategic alliances are routine aspects of international business when allies share costs, establish a pool of joint resources, and create a synergistic effect in the problem-solving process. With the increases in strategic alliances, the way in which businesses view themselves and their competition is being drastically altered.

A successful venture can bring in enormous profits, while a failed one can drain organizations of both financial and human resources. The disadvantages associated with alliances can be reduced if firms select partners carefully, paying close attention to the issues of reputation and structure of the alliance so as to avoid unintended transfers of know-how. According to Badaracco (1991), the success of an alliance is based on three main factors: partner selection, alliance structure, and the manner in which the alliance is managed.

A good ally, or partner, has three principal characteristics (Badaracco, 1991). First, a good partner helps the firm achieve its strategic goals. Second, a good partner shares the firm's vision for the purpose of the alliance. The chances are great that the relationship will not work if two firms approach an alliance with drastically different agendas. Third, a good partner is unlikely to try to opportunistically exploit the alliance for its own ends. These characteristics suggest that the firms with reputations for "fair play" probably make the best allies.

Perhaps the biggest danger is that the firm will give away more to its ally than it receives. Firms can reduce this risk by carefully structuring their strategic alliances. Having selected a partner, the alliance should be structured so that the firm's risk of giving too much away to the partner is reduced to an acceptable level. Managing an alliance successfully seems to require building interpersonal relationships between the firms' managers. Hence, it appears one of the keys to making alliances work is building trust and informal communication networks between partners, while a second key seems to rely on taking steps to learn from alliance partners.

In developing alliance strategy, Harris et al. (1993) argue that the partners must avoid "niche collision." Alliance members may be involved in other partnerships that are conducting business in the same or similar markets. This involvement puts corporations in the position of both cooperating with and competing against their partners. It also increases the risk that a partner will use information gained through the alliance to betray the partnership. To avoid potential losses, corporations should consider strategic alliances to be a new form of competition. The objective is to gain a form of strategic synergy in which the corporation gains the benefits of cooperation without forgetting that the partner is an actual or potential competitor.

Electronic commerce (E-commerce) is the paperless exchange of business information (Anders, 1998). Ultimately, E-commerce will take place in virtual marketplaces. These trading posts will allow buyers and sellers, who may not know each other, to meet electronically and trade products and services without the aid or cost of traditional agents and brokers. While electronic commerce is still in its infancy, it is already possible to spot different ways that it is taking hold in various industries. Some of the most far-reaching implications are occurring in the supply chains of traditional manufacturing companies and in the way the transportation sector keeps track of goods. On-line trade is making rapid headway in high technology, consumer goods, and financial services though its ultimate growth may be limited in all those fields.

The electronic commerce revolution has transformed the face of international business. It had previously been projected that by the year 2000, U. S. internet commerce would be anywhere from $31 billion to $51 billion, according to different research firms. Zona Research Inc., Redwood City, California, suggested that more than three-quarters of the total would be business-to-business (B2B) commerce. It was estimated that direct sales to consumers would be $7.2 billion, or 23 percent of the total (Anders, 1998).

For businesses, on-line commerce is enticing mainly because of its efficiency. For companies that manufacture anything from trucks to cardboard boxes to telecommunications equipment, the Internet is proving to be a powerful tool throughout supply and manufacturing processes. Such companies have traditionally relied on a mix of paperwork and intricate connections between mainframe computers. Switching to the Internet avoids the inefficiencies and high costs of paper records while also avoiding the data-support challenges needed for traditional computer-to-computer links. The recent astronomical growth of the Internet and the World Wide Web (which utilizes the Internet to communicate between World Wide Web sites) will contribute to the ease of joint ventures and strategic alliances.

The following cases will be used to demonstrate how the forest products industry, among others, is beginning to utilize the benefits of E-commerce and, in some instances, entering partnerships with traditional rivals, making for strange bedfellows.

Illustration I: PaperExchange.com

PaperExchange.com, headquartered in Boston, Massachusetts, is a leading global E-commerce marketplace for the pulp and paper industry. PaperExchange.com was formed in 1998, and by year's end, it had 12 employees and 250 members. Today, it has a staff of more than 60 employees and registers more than 3,500 corporate members and 4,500 individual members located in more than 80 countries around the world (NPTA Interviews, 2000).

PaperExchange.com does not own or sell any products itself; it simply provides a marketplace forum for buyers and sellers. The pulp, paper, and packaging industry represents approximately $500 billion of sales globally and more than $182 billion in North America (Cody, 2000). Industry products include containerboard, paperboard, newsprint, fine paper, and paper tissue.

Prior to PaperExchange.com, the paper industry did not have a centralized marketplace where buyers and sellers could monitor market products, prices, and trends. PaperExchange.com enables buyers and sellers to negotiate pricing and directly transact with one another through its marketplace. PaperExchange.com charges its seller members a commission (3%) on the total speculative value of any successful transaction conducted through its site (www.paperexchange.com, 2000). All paper is bought and sold by members through private, secure transactions. PaperExchange.com does not share its list of members nor its transaction information. It does not charge buyers to use its site and does not charge sellers any subscription fees, membership fees, or listing fees.

PaperExchange.com aggregates buyers and sellers in a centralized forum, thereby reducing search time and overall transaction costs for all concerned. It also offers additional value-added services such as logistics and credit. It provides origin-to-destination logistics quotations and credit clearing services for approved members. Other PaperExchange.com site services include the capability of purchasing and selling industry equipment, such as converting machines. Also provided are industry news, job listings, industry event information, and a resource directory (NPTA Interviews, 2000).

Membership is free to producers, brokers, and consumers in the paper industry (The Internet Offers, 2000). Transactions take place within the PaperExchange.com "Trading Floor." The seller, only, is charged a commission (3%) on successful transactions. The buyer never pays a fee. PaperExchange.com also offers credit-clearing services for transactions and can arrange transportation for U. S. domestic and international shipments. For international shipments, PaperExchange.com also manages the customs and associated paperwork.

PaperExchange.com has strategic partnerships and alliances in four general areas or industries:

1) Internet providers of E-commerce,

2) Paper product manufacturers, suppliers, and customers,

3) Transportation and logistics, and

4) Quality assurance and certifications.

It has been building this team of industry experts solidly over the past two years. Within the Internet providers of E-commerce industry are three major alliances or partnerships that have been forged:

a) VerticalNet, Inc.,

b) Impresse, Inc., and

c) Noosh, Inc. (www.paperexchange.com, 2000).

Each Internet company brings its particular expertise to the PaperExchange.com team.

VerticalNet, Inc., owns and operates 47 industry-specific websites designed for on-line business-to-business (B2B) communities, known as vertical communities. These vertical trade communities provide users comprehensive sources of information, interaction, and E-commerce. This strategic partnership was announced in October 1999 (www.paperexchange.com, 2000).

Impresse, Inc., headquartered in Sunnydale, California, is a leading provider of B2B E-commerce solutions for the purchasing and production of commercial print. This strategic partnership was formed in

February 2000 (www.paper exchange.com, 2000).

Noosh, Inc., founded in 1998, is a B2B Internet-based communication and collaboration service for enterprise critical printing. It helps strengthen printer relations so that corporate buyers, printers, and creative agencies may work together efficiently to manage complex contract printing in real time. Noosh, Inc., joined with PaperExchange.com in April 2000 (www.paper exchange.com, 2000).

Within the paper product manufacturers, suppliers, and customers industry are five major alliances or partnerships:

a) International Paper, Inc.,

b) Asia Pulp and Paper Company, Ltd.,

c) Staples, Inc.,

d) Bowater, Inc., and

e) Port Townsend, Inc. (www.paperexchange.com, 2000).

Each of these five agreements adds to PaperExchange.com's growing stature in the electronic marketplace for pulp and paper products.

International Paper, Inc., headquartered in Purchase, New York, is the world's largest paper and forest products company. International Paper has operations in 50 countries, employs nearly 100,000 people, and exports products to more than 130 countries. This strategic alliance and listing agreement is a major event in PaperExchange.com's brief history and was announced in February 2000. Concurrently, PaperExchange.com announced another strategic alliance and listing agreement with Singapore-based Asia Pulp and Paper Company, Ltd., which has manufacturing facilities in Indonesia, China, and India. It markets its products in more than 60 countries on six continents (Zuhl, 2000).

Staples, Inc., headquartered in Boston, Massachusetts, is the pioneer in the office superstore industry. It is a $9 billion retailer of office supplies, furniture, and technology to consumers and businesses in the United States, Canada, United Kingdom, Germany, The Netherlands, and Portugal. Staples, Inc., signed an agreement in February 2000 to post a subset of its cut-sheet paper requirements on the PaperExchange.com site (Zuhl, 2000).

Bowater, Inc., headquartered in Greenville, South Carolina, is a global leader in newsprint and is one of the world's largest consumers of recycled newspapers and magazines. In an April 2000 agreement, Bowater announced that it would offer newsprint for sale over the Internet on PaperExchange.com. Port Townsend Paper Corporation, headquartered in Portland, Oregon, announced in June 2000 that it, too, would begin listing its products on PaperExchange.com (www.paper exchange.com, 2000).

In February 2000, within the transportation and logistics industry, PaperExchange.com announced its strategic partnership with C. H. Robinson Worldwide, Inc., one of North America's largest providers of multimodal transportation services and logistics solutions (NPTA Interviews, 2000). The company was founded in 1905, and its headquarters is in Eden Prairie, Minnesota, just outside Minneapolis. C. H. Robinson Worldwide operates through a network of 131 offices in the United States, Canada, Mexico, Europe, and South America. Its 1999 revenues were in excess of $2.3 billion.

Lastly, in the quality assurance and certification industry, PaperExchange.com announced in April 2000 an agreement with SGS, Inc., the world's leading quality assurance and certification company with more than 30,000 employees in more than 140 countries (NPTA Interviews, 2000). Through the partnership with SGS, PaperExchange.com will enable its members to efficiently order a variety of testing and quality assurance services for all products available on its PaperExchange.com website.

With these significant strategic alliances, partnerships, and agreements, the "dot com new economy" has again invaded another one of the traditional "old economies." According to Kent Dolby, president and chief executive officer of PaperExchange.com, the paper industry buys and sells products (sometimes more than once) valued at more than $500 billion (NPTA Interviews, 2000). There are more than 1,850 producer mills and 275,000 converting plants. But Dolby states that the industry is fragmented. He believes the industry needs a marketplace that allows participants to trade products in any manner they desire whether by auction or exchange, with cradle-to-grave transaction service, and industry information and indices that improve decisionmaking at all levels. Mr. Dolby sees PaperExchange.com as the leader in this new direction for the pulp and paper industry (NPTA Interview, 2000).

PaperExchange.com enables buyers and sellers of paper to negotiate products and prices and conduct direct communication in its marketplace. The paper is bought and sold through private, secured transactions, and PaperExchange.com will assist with logistics and credit, if desired. The dot com company will integrate its technology with its alliance partners and accelerate existing operations into the full capabilities of E-commerce.

PaperExchange.com offers buyers and sellers round-the-clock access to all major grades of paper products, including secondary fiber, pulp newsprint, towel and tissue, packaging and containerboard, and printing and writing grades. By combining pulp and paper industry domain experience with access to multiple trading models delivered on a common platform, PaperExchange.com provides its members with both expanded business opportunities and increased transaction and manufacturing efficiencies.

Printers, print buyers, and paper/print specifiers can also use PaperExchange.com for paper specification and sourcing. Additionally, PaperExchange.com provides up-to-the-minute industry news, up-to-date stock quotes and company information, as well as resource listings for associations, suppliers, and publications. Users can also buy and sell equipment or post and find industry jobs. All posted offers and requests on PaperExchange.com are immediately confirmed with an email to the member. After a transaction is closed, no billing occurs until shipment. Immediately following shipment, the seller sends PaperExchange.com a copy of the invoice, which is used to calculate the transaction commission. Payment terms are net 30 days (www.paperexchange.com, 2000).

PaperExchange.com recognized that global electronic commerce will only flourish in an environment in which information is treated in a sensitive and private manner. By incorporating transaction security using Secure Sockets Layer (SSL) technology, PaperExchange.com maintains an environment in which privacy and confidentiality are of paramount importance (www.paperexchange.com, 2000). In order to execute any transaction, member password verification is required. In addition, PaperExchange.com underwent the CyberProcess Certification process from Ernst & Young. Besides mandating the use of state-of-the-art technology by PaperExchange.com, the Ernst & Young CyberProcess Certification involved an examination of PaperExchange.com's management of all customer specific information (www.paper exchange.com, 2000). These certifications insure user anonymity and privacy, as well as highlight PaperExchange.com's independence and neutrality.

PaperExchange.com currently offers credit clearing services on a limited basis to qualified buyers. Bids placed by credit approved buyers will appear in the "CreditApproved" column on the PaperExchange.com "Trading Floor." They will also appear with a PaperExchange.com "CreditApproved" symbol on the Activity and Details page. Interested buyers must apply to the PaperExchange.com Credit Services Department for this credit application and approval process.

The E-commerce industry is exploding, particularly the business-to-business segment. The paper industry is ripe for change, particularly because it currently lacks an efficient marketplace. The transaction and manufacturing efficiencies and cost savings offered by new business-to-business E-commerce companies like PaperExchange.com will motivate the paper industry to enter the e-business arena. Economists at Goldman Sachs & Co., recently said the efficiencies produced by business-to-business E-commerce will add about one-quarter of a percentage point to the annual growth of major industrialized countries during the next 10 years, *The Wall Street Journal* reported in February 2000. That amounts to $23 billion in U. S. goods and services each year. The economists, *The Journal* reported, say on-line transactions between companies, which now account for only 0.5 percent of all such business, will account for 10 percent by 2004 and significantly reduce costs in many industries (www.paperexchange.com, 2000).

Illustration II: International Paper, Georgia-Pacific, and Weyerhaeuser

The three largest U. S. forest product companies, International Paper (IP), Georgia-Pacific, and Weyerhaeuser, agreed in February 2000 to start a global, business-to-business, on-line marketplace linking them to their suppliers and customers (Starkman, 2000). The new portal, Forest-Express, will allow customers to purchase a broad range of paper and other forest products on-line. The companies say the venture will operate independently with its own board and management team and may be taken public, and more partners are expected to join the group. ForestExpress will supplement or provide an alternative to company sales forces, distributors (known as "paper merchants"), and other traditional sales channels. By working together to establish an on-line marketplace, these industry leaders believe they can benefit customers by simplifying the transaction process, improving information flow, and decreasing delivery time while decreasing costs. The availability of procurement and sales functions allows member companies to streamline purchasing, reduce inventories, trim internal costs, and improve return on capital employed.

The three companies, which represent about a quarter of the U. S. industry's sales, say the site will provide a marketplace for paper industry suppliers, including machine makers, maintenance and repair companies, and power, chemical, and timber suppliers (Starkman, 2000). The new entity hopes to handle a large piece of the U. S. industry's $200 billion in annual sales. Competitors are already on-line. PaperExchange.com filed to go public on March 10, 2000. If investors are not sure how the exchanges will end up, neither is the industry's major player, International Paper (IP). The company has hedged its bets, taking a small equity stake in PaperExchange.com as well as spearheading the on-line marketplace. IP announced before its venture with Georgia-Pacific and Weyerhaeuser that it would be joining PaperExchange.com. "We do business a lot of different ways; no one ever said there will only be one solution for the paper industry," said IP spokesperson Robert Cox (www.gp.com, 2000). Other on-line exchanges for forest products currently include Fibermarket and Paperdeals.

ForestExpress follows the launch of similar ventures in steel, chemicals, airlines, and the auto industry, to name only a few. The appeal of B2B ventures is the same one that has always supported consumer and trade-buying clubs—combined purchasing power allows buyers to win concessions from suppliers. All exchanges hope to wring out more profits from suppliers and drastically reduce dependence on middlemen. Some existing exchanges offer financing, risk management, and logistics options to assist in complex international deals.

As with announced exchanges in other industries, no one seems sure just how ForestExpress will evolve. It is one thing to create in-house websites to sell to business customers and to buy supplies. It is another problem altogether to link sites, throw in internal inventory and accounting, and then bring them together in an on-line marketplace. Major hurdles for ForestExpress, and all exchanges, include antitrust laws, merging corporate cultures, and logistics. Another problem is overcoming the strong feeling of distrust in working with traditional competitors. Yet another hurdle is the amount of cooperation and information sharing among competitors that is necessary to make on-line exchanges successful. For example, since 1991, Wal-Mart has used its EDI vendor system to gain a major competitive advantage over rivals Kmart and Sears. As one Wal-Mart spokesperson said, "Why share all that?" (McWilliams, 2000). Dell Computers is another company that is not willing to jump on the on-line marketplace bandwagon.

ForestExpress is doing one thing differently than previous exchanges in forming an on-line business. The forest product companies are bringing in antitrust experts and strategic and financial advisors. According to John Balboni, vice president of electronic business for International Paper, earlier marketplaces selected a technology partner first, then developed a business plan. "We're starting with a plan, and then technology will become the enabler" (Lorange and Roos, 1992).

This strategy is in contrast to many companies that are relying on in-house talent to do the work rather than bringing in outsiders. The advantage of internal development is that executives know the business, products, customers, and channels of distribution. The disadvantage is the learning curve. Many early adopters of on-line exchanges have found it necessary to commit to industry standards that would allow its exchange to work with others.

Bruce D. Temkin, research director for on-line marketplaces at Forrester Research, Inc., said on-line marketplaces are not a panacea for inefficiencies and customer relations (Ansberry, 2000). The thought from the movie *Field of Dreams*, "Build it, and they will come," may not hold true in the electronic economy. In some industries, products must be redesigned, and supplier relationships have to be adjusted to meet the pricing, availability, and delivery terms of the current marketplace. One size does not fit all customers, nor does it fit all businesses. Sometimes the existing process a business has in place is more efficient than an Internet solution that is all things to all people. The forest products industry, as a whole, is notoriously inefficient in both manufacturing and distribution. Therefore, members of Forest-Express should be careful in their approach to on-line marketing.

Joining companies with inefficient manufacturing and distribution processes may not guarantee success. Many on-line exchanges have already gotten off to a bad start. SciQuest, which has built an on-line marketplace for scientific products, saw its shares drop from above $80 to $10 in May 2000, and shares of Neoforma, an on-line medical supply provider that went public in January 2000, dropped from the high $70's in February 2000 to about $13 in May 2000 (McWilliams, 2000).

Conclusions and Implications for Managers

The emergence of E-commerce is all about using technology to gain a sustainable competitive advantage in the global marketplace. The new value proposition for business today is to give customers what they want, when and how they want it, and at the lowest cost. To meet increasing customer demands, companies must wring out inefficiencies and improve customer service. Businesses that meet customer demands at the lowest cost will indeed gain a competitive advantage. Customers will still turn to the most reliable sales channel that fulfills their needs; they do not care about who is involved behind the scenes, only that promises are kept. So when businesses collaborate to deliver on the promises, no debate over whom to include occurs. Partners are suddenly rewarded not just by unloading their own inventory, but by participating in the sale to the end customer. The only requirement of every partner in a voluntary on-line marketplace is that all partners add value to the process. Suddenly, business partners will no longer compete but instead work in concert to meet end-consumer demand. Whether that demand is on the Internet or in the retail outlet or showroom, the collective competitors will be the ones who change the game and expand their markets, one satisfied customer at a time.

Electronic commerce is fulfilling its early promise for B2B trade. The number of marketplaces connecting buyers and sellers are up and running in many industries and creating value by making trading more efficient. On-line marketplaces (OLMs) are a small but growing E-commerce model that B2B manufacturers need to understand. OLMs will not dominate all B2B markets, but where viable, they force changes in the supply chain. The potential for manufacturer cost-savings and market coverage is huge, but OLMs will force manufacturers to restructure their distribution channels, guard against price erosion, and discover a new basis for competition by clearly understanding how and where they add value for their customers in an E-commerce world. It is, therefore, time for businesses to consider how they might participate in E-commerce strategic alliances to create value for themselves and prevent it from shifting to competitors.

For managers, lessons gained from the PaperExchange.com example include how they have been successful in creating more ways to add value for their customers. Managers can look for ways to improve market inefficiencies as PaperExchange.com did in a somewhat fragmented industry by setting up and serving as a clearinghouse for the paper industry. Managers have improved the marketplace with unprecedented linkage of suppliers of paper products and customers of paper products. Although the old marketplace still functions, efficiencies provided by the Internet and information technology have greatly reduced time and location factors for the seller and buyer.

As president of PaperExchange.com, Kent Dolby's extensive background in the paper industry and his visionary image of the electronic marketplace are examples of old business exploring the application of new technology to create a new business model. Managers must always scan the horizon for new and better ways to leverage technologies in order to sustain and advance business enterprises. They must know their product/service line, customer needs, and industry direction so they can use new information-age tools and advances in information technology to move businesses forward.

For managers, lessons gained in examining the ForestExpress example show how firms can enlist a strategic, multi-alliance business solution, thereby creating opportunity in their industries for increasing customer value. Thus, managers may be able to eliminate or reconstruct their distribution channels and change the ways that businesses compete by reducing costs or delivering speedier products. These industry consortiums face some overwhelming challenges. Despite the lack of resources relative to industry consortiums, such as ForestExpress, OLMs, and PaperExchange.com, may have an advantage over bureaucratic corporate giants. Given the headaches of a simple joint venture between two corporations, the viability of a joint venture with many players sounds highly problematic in the long run. If internal strife does not kill the consortiums, regulations from the Federal Trade Commission may do so.

The B2B sector seems to be at a crossroads. Companies can use B2B marketplaces to strengthen their existing trade relationships, discover and develop new ones, and promote faster and more efficient trading. However, today, as in the B2B sector, companies are saying, "we can do that ourselves," or "we can make money at this, too." For example, when FreeMarkets developed the reverse auction, it was new. But now it is available in everybody's package. Ariba even offers an off-the-shelf reverse auction package. Also, many companies can, and have, developed their own similar technology solutions.

Another challenge to managers is fighting the status quo. Most big companies continue to use electronic data interchange (EDI), the established method of corporate commerce. EDI still accounts for the majority of B2B commerce today. This news is bad for many small and mid-size suppliers who, unable to afford the latest and greatest in EDI technology, perhaps stand to gain the most if big companies strongly embrace and adopt Internet marketplaces. Recall the example of Wal-Mart; it refuses to give up its EDI advantage to a consortium.

Finally, information may prove to be a valuable asset for on-line marketplaces. Information has always been key to business success; the Internet has only increased the demand. The Internet has made available unprecedented levels of information, provided a highly accessible and efficient method for sharing it, and made possible real-time exchanges. In some situations, the value of the information captured may be greater than its products. The information may be the business.

Author's Note

A German firm, PaperSpace Gmbh, has acquired the PaperExchange.com IT technology and operates the open marketplace called The PaperExchange under its website, PaperSpace.com. Bob Brenner replaced Kent Dolby as CEO of PaperExchange.com in December 2000.

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