

**The Internet: Business Applications and Relationship Construct
Adaptation in a Forest Products Industry Setting**

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Introduction

The rapidly changing Internet business environment make this study an interesting snapshot in the early stages of Internet relationship marketing research.

The two objectives were to 1) Explore how the Internet impacts the way that companies do business and; 2) Develop an approach to research Internet buyer-supplier relationships.

Current and projected trends in Internet commerce participation were examined. For example, smaller firms with 1995 sales less than \$1 million are the predominant users of the Internet, primarily for consumer sales. However, respondents indicated that within the next two years, many large firms (1995 sales over \$100 million) indicated that they plan to be using the Internet for both sales to customers and purchases from suppliers. A sense of relationship significance and a positive proclivity towards offering process-oriented incentives were found to exist. In addition, an exploratory factor analysis was used to develop four Internet relationship marketing scales (Trust, Commitment/Relationship Strength, Structural Bonding/Incentives and Communication/Relationship Interaction).

The Internet

The Internet came into existence about 20 years ago, out of an effort to connect a U.S. Defense Department network called ARPAnet and various radio and satellite networks (Kroll 1994). Demand for networking applications quickly increased with other government agencies, universities and others seeking a means to communicate in an Internet Protocol (IP) environment. As such, networks proliferated and today the Internet has evolved into a mass array of computers and servers all over the world.

Electronic markets, facilitated by the Internet and the World Wide Web, are experiencing explosive growth. Hundreds of companies are conducting business solely on the Internet while tens of thousands of additional companies are discovering electronic markets as a means for promoting and selling products and services (Vlosky and Gazo 1996). The Internet, which continues to double in size each year currently, has 20 to 30 million users with a reasonable estimate of 200 million people using the system in five years. Electronic based marketing on the Internet can afford companies, regardless of size or marketing expertise, the opportunity to promote their products nationally and internationally. From the smallest localized company to the largest multi-national corporation, the Internet creates opportunities for product promotion, sales and other business activities.

The World Wide Web

The Internet global network is akin to a sanctum of information and commerce with the World Wide Web as the means to enter this domain. The World-Wide Web, also known as WWW or just the web, is a network of servers, talking across the Internet, that display text and graphic information to a variety of desktop clients such as Netscape or Microsoft Explorer. Capable of displaying formatted text, graphics and hyperlinks to other pages, a web page provides the most visual presence possible on the Internet. The WWW, which has only been in existence since 1992, offers the benefits of the “information superhighway” with protocols, client/server technology and takes advantage of the global telecommunications infrastructure that is already in place (Abate 1993). The WWW presents the first tangible example of the world of the future with information just click away and low barriers to entry for information

providers. World Wide Web home pages on the Internet can generate substantial customer interest for companies and general interest for researchers. For example, an average company can receive 1,000 to 2,000 "hits" a day, while well-known companies can get more than 100,000 hits a day (Boisseau 1992). The latest numbers show Web use doubling every couple of months (twice the rate of overall Internet growth) as literally thousands of new businesses, government agencies and other groups of all sizes and types develop Web Home Pages.

Through the Internet, many barriers that were once roadblocks to new markets, resources and competitive positioning are reduced or eliminated. Although businesses vary greatly, along with their depth of participation on the Internet, their goals are often the same: to find new customers; new sources of profit; and new ways of doing business in a global marketplace (Lewis 1994). The Internet levels the playing field as it allows bantam firms to be as visible and accessible as colossal firms. For small businesses, the Internet is a way to market to key groups, search for hard-to-find products and services, create a "virtual organization" for projects and provide product support (Blotzer 1995).

A review of Internet marketing research

The First WWW User Survey was in conducted during January 1994 by James Pitkow, a GVU Ph.D. Candidate at the GVU (Graphics, Visualization, & Usability) Center affiliated with Georgia Tech's College of Computing. The survey provided one of the first ever characterization of Web users (<http://www.gatech.edu/pitkow/survey/survey-1-1994/comments/>). Since then other surveys in regards to Internet consumer preferences, habits

and characteristics have been conducted. These surveys have addressed consumers but have not captured elements of relationship marketing between businesses.

Businesses are using the Internet to disseminate information about new or existing products, and communicate with potential and current customers and suppliers. While extensive use of the Internet for marketing and selling products is limited, the time is rapidly approaching when an e-mail address will be as important to a business as their phone and fax numbers. Lynch (1996) stated that the telephone and Internet are the only two resources that are useful throughout new product introduction. The Internet can be integrated as a critical element in the strategic communications system, saving time and expense.

Consumers are more interested in information than entertainment on the Web (<http://www.portal.com/~dalton/whatsmis.html>). *Conducting Business on the Internet*, a study from O'Reilly & Associates' Online Research Group, confirms that the Internet holds great promise as a business tool, but also points to the Net's current limitations in reach and acceptance. In 1995, 53 percent of medium-sized businesses (101-999 employees) stated that they had no Internet connection and no plans to acquire one. Among medium-sized and small businesses that employed less than one thousand people, the percentage that had no plans for Internet access proved 'surprisingly high' according to the researchers. The perceived primary use of the Internet with the highest value by respondents was in providing product information. The same survey found that large (1,000 employees or more) and medium (101-999 employees) companies in the U.S. and Canada are online in significant and growing numbers. Fifty-one percent of large companies have Internet access, and another 15 percent plan to connect to the Internet by the end of 1996. Twenty-five percent of medium-sized companies

have already connected to the Internet and 17 percent planned to do so by the end of 1995.

This means that even many large organizations do not have an Internet presence at the present time.

There has been an increasing presence of businesses on the Internet, which has contributed to the dramatic growth of the World Wide Web. Thirty-five percent of the large and 20 percent of the medium companies surveyed by O'Reilly & Associates' had created a publicly accessible World Wide Web site. The primary use by businesses of the Internet is for Intranets or Internet types of networks wholly contained within companies. In 1995, thirty-seven percent of large and 23 percent of medium businesses had at least one internal Web site.

According to International Data Corporation (IDC), a market research firm that tracks the Internet, at the end of 1994; 38 million "nodes" (computers) were linked to the Internet. A node may offer access to several users, especially in a university or business setting; therefore the actual number of individuals is considerably larger. It is projected that the number of nodes will increase 48 percent in 1995 and another 58 percent in 1996. The number of nodes with full, worldwide Internet access was expected to grow from one million to five million in 1995 (Andelman 1995).

The verdict was mixed as to the Internet's perceived ability to improve the business environment, more than half (57 percent) of the representatives from large companies and only 42 percent of those from medium companies said that it had. This presents an opportunity for all businesses currently using the Internet to seek ways to improve the exchanges in which they are participating. The Internet provides a forum, just as conferences do, where organizations

can network by responding to and following-up on postings in news groups and mailing lists with people who seem to have similar interests (Blotzer 1995).

One way for businesses to develop business-to-business relationships through the Internet is through client servers (Andelman 1995). Partner firms and/or perspective clients may load information and software remotely making it convenient, cost effective and timely. Many organizations may be leery of the Internet, especially in regards to the security of information. Of special concern to many is putting full credit card information and other account-profile data on the Internet system. Before releasing information haphazardly to potential partners, some firms may choose to wait until adequate trust has been built in the relationship before putting mainframe, host-based information through the Internet.

Business is no longer solely done nine-to-five. Individuals in all types of occupations work at unconventional times. It is during these periods that e-mail plays an especially vital role in establishing contacts and developing channels of communications. With appropriate follow-up, e-mail can serve as both an initiator and facilitator of communication links between business partners. Competitive intelligence is easily gained through the Internet. Though few companies may be taking the time to do it, going on-line can be an inexpensive and valuable exploratory tool to monitor competition, track the industry and find out what customers think. However, this same activity provides the avenue for opportunistic behavior between relationship partners. A Web site designed for business-to-business marketers is Automation News Network (ANN), with more than 150,000 buyers and sellers and 1,000 daily logons.

Business-to-business marketers are both enthusiastic and uneasy about using the Internet as a marketing tool. A survey from Brewer Associates Marketing Communications

found that 43 percent of respondents said they were "apprehensive" about Internet marketing, yet 34 percent were "enthusiastic." Approximately 30 percent of those surveyed said they are already using the Internet for marketing and 77 percent expect to include the worldwide network of computers in their marketing mix within the next five years. Only seven percent said they'd never use the Internet for marketing (Woods 1996). The survey indicated that respondents felt that the biggest benefit in marketing via the Internet was in accessing information, 74 percent of the survey respondents. "Sixty-seven percent said the Internet led to faster communication among companies and 60 percent saw Internet marketing as a way to identify their companies as being "progressive." As is consistent with much of the literature regarding consumer weariness of the Internet, 53 percent of respondents were concerned about the lack of security and confidentiality. Another disadvantage of business-to-business marketing on the Internet was indicated by 48 percent reporting confusion among users. And until there is a standard, the constantly-changing technology was cited by 44 percent as being a disadvantage. Responding to how marketers would prefer to implement an Internet marketing program, 45 percent favored using an Internet specialist, while 24 percent planned on doing it themselves. Eighteen percent would work with marketing communications or advertising agencies.

The Internet is known as the open 24-hour a day, find anything-you-can-imagine store. But it is also used everyday by businesses to hold international conferences, 'send flowers to a customer; research current Securities and Exchange Commission filings or the latest headlines and foreign-currency quotes; hand out electronic sales brochures; send E-mail from one home office to another across the country; broker unused manufacturing capacity, and even plan a

business dinner'. The Internet allows companies to link employees in remote offices; communicate with foreign customers and suppliers regardless of time zones; distribute sales information more swiftly and efficiently; speed product development; cut printing costs; make better use of resources; and, increasingly, advertise and market their services and products (Lewis 1994). The upsurge of interest among companies to do business on the Internet has been fueled by the declining cost of PCs and modems; the proliferation and aggressiveness of Internet service providers; the influx of Internet-savvy college graduates into businesses; and the emergence of software tools for exploring the Internet.

The Internet and relationship marketing

Relationship marketing is attracting, maintaining and enhancing relationships between firms. It requires understanding of the distinction between discrete transactions, which are characterized by short duration and single event transactions, and relational exchanges, which are characterized by long term, and enduring sets of transactions. (Varadarajan and Rajaratnam 1986).

Relationship marketing has previously been examined in regards to a number of attributes including trust (Anderson and Narus 1990, Dwyer, Schurr, and Oh 1987, Mohr and Spekman 1994, and Morgan and Hunt 1994), commitment (Dwyer, Schurr, and Oh 1987, Mohr and Spekman 1994, and Morgan and Hunt 1994), communication (Anderson and Narus 1990, Dwyer, Schurr, and Oh 1987, Mohr and Spekman 1994, and Morgan and Hunt 1994). It is these three attributes, trust, commitment, communication, in addition to process oriented

relationship activities that the authors believe have a significant impact on marketing relationships between Internet business partners.

Relational exchange is based on a social component, largely represented by trust and is characterized by transactions over time, each transaction is a part of a past and anticipated future. Between the two extremes, the absolute discrete transaction to the most complex relational exchange, is an increase in communication and involvement, an increase in time and history, added planning is required, increased involvement of multiple parties, increase of power of one party, increased contractual agreement, and increased trust both implicit and explicit (MacNeil 1980). In 1980, MacNeil stated that in addition to the actual exchange of a product or service for financial compensation, relational exchange participants may experience personal, non-economic satisfactions and engage in social exchange.

We believe that the Internet will change the social exchange and structural aspects of doing business. As businesses seek new marketing partners, engage in exchanges, services, and maintain marketing partners through the Internet, a new marketing relationship paradigm may emerge. Following is a discussion of the relationship attributes we believe will be influenced by this new paradigm.

Trust

Most definitions of trust involve a belief that one exchange partner will act in the best interest of the other partner. Four often cited definitions of trust:

1. A willingness to rely on an exchange partner in whom one has confidence (Moorman et al. 1992).
2. One party believes that its needs will be fulfilled in the future by actions taken by the other party (Anderson and Weitz 1990).
3. A party's expectation that another party desires coordination will fulfill obligations and will pull its weight in the relationship (Dwyer et al. 1987).
4. The belief that a party's word or promise is reliable and a party will fulfill his/her obligations in an exchange relationship (Schurr and Ozanne 1985).

Trust involves a firm's confidence in the continuation of a mutually satisfying relationship, reputation, past performance, personal relationships and social bonds (Thorelli 1986). The outcome of trust is a firm's belief that another will perform actions that will result in positive outcomes for the firm and not take unexpected actions that result in negative outcomes (Anderson and Narus 1990). The literature on trust suggests that confidence on the part of the trusting party results from the firm belief that the trustworthy party is reliable and has high integrity, which are associated with such qualities as consistent, competent, honest, fair, responsible, helpful, and benevolent (Dwyer and LaGace 1986; Morgan and Hunt 1994). The existence of trust and commitment in a marketing relationship encourages marketers to work at preserving relationship investments by cooperating with exchange partners.

The Internet does not facilitate many of the cues such as social bonds, personal relationships and reputation that firms have relied upon as a basis for the formation of trust in relationships. In traditional relationships, trust permits the waving of formal contractual

agreements. Trust and commitment in a relationship allows marketers to view potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically. The Internet may encourage opportunistic behaviors by unscrupulous parties, through the ease in which competitive information may be readily accessed. The tendency of some to shop around for new partners, better offerings, more favorable trade allowances and similar information will be impaired or facilitated by security measures such as passwords that organizations may institute to guard competitive, sensitive or proprietary information.

Commitment

Commitment in regards to relationship marketing is a firm's resolution to perform an activity for which they have made a promise to another firm to execute. Commitment includes both implicit and explicit promises made by firm. This commitment can be measured by three criteria: inputs; durability; and consistency (Dwyer, Schurr, and OH 1987). Commitment to the relationship is defined as an enduring desire to maintain a valued relationship. A firm's valued relationship corresponds with the belief that relationship commitment exists only when the relationship is considered important. Enduring desire to maintain the relationship corresponds with a committed partner who wants the relationship to endure indefinitely and is willing to work at maintaining it (Morgan and Hunt 1994). Commitment not only is a desire to continue a relationship but also a pledge to work toward this continuance (Wilson 1995). Commitment implies importance of the relationship to the partners and a desire to continue the relationship in the future. Hardwick and Ford (1986) point out that commitment assumes that the relationship will bring future value or benefits to the partners.

In a study with implications for Internet relationship market research, Vlosky and Wilson (1994) found that exchange partners that adopt interorganizational systems (IOS) technology experience relationship disruptions in the short-term but have long-term expectations of strengthened relationships. Interorganizational information systems (IOS) are systems based on information technology that crosses organizational boundaries (Bakos, 1991). With regard to effects of IOS technologies adoption on relationships in channels, Clemons and Row (1993) found that new IOS based coordinative interfirm activities are often met with distrust, ambivalence and open resistance by exchange partners. They believe that for some channel segments, potential benefits of cooperation, coordination and supply or buyer base rationalization may never be realized.

Similarly to findings in the IOS relationship literature, we believe that companies that engage in Internet commerce will develop a set of commitment attributes and behaviors that will effect development and sustenance of channel relationships.

Structural Bonding/Incentives

Taking a long-term perspective, Han & Wilson (1993) and Han (1992) posit the notion of technology as a construct in development of structural bonding which, in addition to social bonding, constitute the inputs to relationship development. They suggest that the level of technology of the relationship partner is positively related to the level of structural bonding between the buyer and the seller. Han (1992) describes structural bonding as exchange partners being closely tied together in terms of economic, strategic and organizational reasons regardless of personal or emotional factors. Relationship marketing can provide cost incentives

to enter as together trust and commitment produce outcomes that promote efficiency, productivity, and effectiveness (Morgan and Hunt 1994).

Communication/Relationship Interaction

Understanding of each partners goals and coordination of efforts to achieve those goals is dependent upon the frequency and quality of information exchanged. Two specific aspects of communications particularly relevant to achieving goal compatibility and mutual trust are feedback and mutual participation in goal setting (Anderson, Lodish and Weitz 1987).

Communication and bargaining is described as the willingness to negotiate to reach a position where each party is able to achieve a level of satisfactional benefit greater than the burden and obligation to remain a party to the relationship (Dwyer, Schurr and Oh 1987). Communication captures the utility of the information exchanged and is deemed to be a key indicator of the partnership's vitality.

In the marketing relationship literature there are three aspects of communication behavior that have been pointed to as important to partnerships are: communication quality, extent of information sharing between partners, and participation in planning and goal setting. Communication quality includes the accuracy, timeliness, adequacy, and credibility of information exchanged (MacNeil 1981). Participation refers to the extent to which partners engage jointly in planning and goal setting. When one partner's actions influence the ability of the other to effectively compete, the need for participation in specifying roles, responsibilities, and expectations increases. Input to decisions and goal formulation are important aspects of participation that help partnerships succeed (Anderson, Lodish and Weitz 1987).

The Internet is notorious for informal communication exchanges. The informality of the communication may facilitate more rapid responses between parties. Informality must not give way to incomplete or inaccurate exchanges, which would be detrimental to the need for accuracy and adequacy in information. E-mail has increased the potential to increase the credibility and accuracy of information exchanged on the Internet, as it hastens the response time over conventional mail and e-mail messages are easily forwarded within organizations to the appropriate individuals who can respond directly to inquiries. E-mail, chat rooms, computer conferencing and bulletin boards are various methods that organizations may employ in order to facilitate participation and feedback among marketing partners.

METHODOLOGY

Research context

We examine relationship marketing and the Internet in a business-to-business setting. This paper was developed as part of a larger study that included Internet implementation strategies of United States wood products suppliers. By conducting an extensive search of World Wide Web Home Pages, a sample frame was developed consisting of 257 wood supplier companies that have an Internet presence. Each company was telephoned to confirm Internet use and to identify a key respondent that would be appropriate for this study.

In addition to companies with a known Internet presence, a random sample of the remaining wood products manufacturers in the United States was taken from a purchased list of companies. This resulted in an additional 798 companies for a total of 1,055 companies surveyed in the study.

Based on the literature, an extensive list of topics and questions were generated by the authors. The questionnaire instrument tested constructs using measures developed by the authors and adapted from other sources. This list was reviewed and revised by the authors and a senior executive at the corporate research sponsor. The authors and colleagues at the authors' university reviewed initial drafts of the questionnaire. The corporate sponsor in a number of internal departments and regional divisions conducted questionnaire pre-testing. An iterative process resulted in the final instrument.

Questionnaires were then developed and mailed to 257 Internet wood product manufacturers and 798 additional companies. Pre-addressed, postage paid envelopes and a personally signed cover letter were included with the questionnaire. In addition, copies of an article on the subject of the Internet in the wood products industry was included as a means of encouraging participation. The cover letter promised summary results of the study for completing and returning the questionnaire. In addition to the initial mailing, pre-notification and reminder postcard and a second questionnaire mailing were sent.

Every effort was made to identify all key informants by name and title. However, in the few cases when this was not possible, questionnaires were sent to the attention of the President or VP Marketing.

After accounting for non-deliverable surveys (due to company closures, change of address or deceased), an adjusted response rate of 36 percent was achieved.

RESULTS

Internet Participation

The majority of respondents are mid- to small-size companies with two-thirds having 1995 sales of less than \$10 million. Fifty-two percent of respondents (182 companies) have access to the Internet while 22.5 percent reported having a WWW home page. Of 247 respondents that responded to this question, 33.2 percent plan to develop a WWW home page. Large suppliers are decisively moving toward Internet implementation. Of the 103 respondents that reported when their home page was placed on-line, 43.7 percent have placed their page on-line since January 1996, 37.9 percent went on-line during the last six months of 1995 and 14.6 percent placed their home page on-line between January and July of 1995. Only 3.9 percent noted having their company's home page on-line prior to January 1995.

With the recent growth in WWW home pages, it is easy to recognize why 52.0 percent of the respondents indicated that they believe they were among the first to have an Internet presence. There were 13.3 percent of the respondents that claim to have been the first to have an Internet presence, while 8.1 percent reported that they believe that all companies were on the Internet at the same time. Approximately one-fourth (24.9 percent) believe they will be behind most companies in having an Internet presence and 1.7 percent purport that they expect to be the last company to have an Internet home page on-line.

Current and Projected Use of the Internet

Overwhelmingly, the majority of firms reporting an Internet presence (93 of 103) have a home page with links to related pages. Eighty-six firms reported being listed as a reference on another home page and 52 firms have their home page linked to an industry listing. For firms that have not yet made their presence known by means of a home page, 47 said they would develop a home page within the next two years; 39 said they would have a home page within six

months. For 17 firms, their home pages are currently under construction and another 15 firms report that they have a registered Internet Domain but have yet to develop their home page. Only 16 firms have not discussed developing a home page.

The predominant use of the Internet now and in the predicted in six months is reportedly for e-mail with 127 and 98 responses respectively. Use of the Internet for home pages, product promotion, customer contacts and online services are reported as the secondary use now and planned in six months, among these four uses the planned use for customer contacts will become increasingly important. Tertiary use of the Internet is sales to customers, vendor contacts and use for public relations. Bulletin boards, news, purchases, FTP, list servers and gophers were less likely uses of the Internet presently and planned in six months.

Respondents forecast the biggest anticipated change in planned use of the Internet in two years. At that time primary use of the Internet is planned to be for customer contacts. Following close behind in anticipated use is e-mail, home pages, sales to customers and product promotion. Vendor contacts, purchases and on-line services are planned as tertiary uses in two years. Public relations, bulletin boards, news, purchases, FTP, list servers, and gophers tail the list in their anticipated use in two years.

Cumulatively, now, in six months and in two years the primary use of the Internet will be for e-mail and customer contacts. Product promotion, home page and sales to customers form the secondary use segments. On-line services, vendor contacts, purchases and public relations form the tertiary cumulative use segment. Bulletin boards, news, FTP, list servers and gophers continually rated as least frequent uses of the Internet.

The most significant change between the three time frames is the increased planned use of the Internet for customer contacts moving from a fourth place ranking now to first place ranking in planned use in two years. Another significant change in current use and planned use is the fall of on-line services from ranking fifth in use presently to eighth placed in planned use two years from now.

While company promotion is currently the most cited use of the Internet, the biggest anticipated change in use of the Internet by respondents in two years is for sales and customer contacts. Vendor contacts, purchases and on-line services are also planned additional activities in the next two years but a majority of respondents.

Benefits and Concerns from using the Internet

The principal benefit that respondents perceived they would expect from the Internet is greater exposure to customers, followed closely by greater access to their company by potential customers. Other benefits that respondents perceived that they expect from the Internet, in descending order of response, are: increased access to vendors; timeliness of information exchanged; enhanced image of their organization and being seen as a cutting edge organization; increased sales; increased value to customers; a public relations tool; improved competitive position; lower cost to promote companies products; and improved service to customers. With slight agreement, firms perceive that the Internet will benefit them through stronger bonds with customers, greater access to vendors and better relations with customers.

The Internet was not perceived to be any better or worse method for selling products. Respondents did not perceive the Internet to benefit them by means of lower costs of doing business, faster delivery or lower prices to customers.

Respondents register very little concerns about using the Internet. Most responses to the list of concerns were neutral. Speed of access and cost were the highest reported concerns. Security of information was ranked third, but only as a slight concern. Loss of contact with customers and less contact from the sales force were not seen as concerns.

Internet Relationship Construct Adaptation

A second objective of the study was to adapt and test scales for Internet relationship marketing research. A maximum likelihood factor analysis was conducted on relationship items (Hair et al. 1992) (Table 1). An iterative process resulted in a reduction from eleven items to four underlying factors: Trust, Commitment/Relationship Strength, Structural Bonding/Incentives and Communication/Relationship Interaction. Following is a key for the eleven items found in Table 1:

Table 1.

Internet Relationship Factor Analysis*

Variable	Trust	Commitment/ Relationship Strength	Structural Bonding/ Incentives	Communication/ Relationship Interaction	Communality
RELIABLE	0.995	0.037	0.072	0.049	1.000
TRUST	0.862	0.085	0.009	0.006	0.750
CONFIDEN	0.464	0.144	0.001	0.044	0.238
BONDS	0.101	0.708	0.117	0.027	0.526
VALUE	0.297	0.502	0.327	0.128	0.463
RELATION	0.083	0.906	0.251	0.007	0.892
LOWPRICE	0.086	0.225	0.608	0.035	0.428
SERVICE	0.091	0.469	0.557	0.017	0.538
DELIVERY	0.103	0.113	0.971	0.065	0.971
CONTCUST	0.091	0.027	0.046	0.994	1.000
CONTSALE	0.056	0.087	0.096	0.754	0.588
Variance	2.0919	1.8957	1.8222	1.5842	7.3939
% Var	0.190	0.172	0.166	0.144	0.672

* Rotated Factor Loadings and Communalities, Varimax Rotation

Factor loadings greater than 0.45 were used as separation criteria to reduce the data to four distinct factors. Each of the four factors identified were interpreted and assigned a scale name. These scales can also be construed as being surrogate variables having analytical and managerial implications. Surrogate variables are particularly useful in exploratory research (Hair et al. 1992). These four factors represent 67 percent of the variance in the eleven items. Communality indices (summed square factor loadings) reflect the amount of variance in a particular variable that is accounted for by the 4-factor solution (Hair et al. 1992). Table 2 shows the results of reliability testing for the four scales.

Table 2.

RELIABILITY ANALYSIS

TRUST

Statistics for	Mean	Variance	Std Dev	N of Variables	
Scale	8.8417	2.6704	1.6341	3	Alpha = .7706

COMMITMENT/RELATIONSHIP STRENGTH

Statistics for	Mean	Variance	Std Dev	N of Variables	
Scale	10.8027	4.7485	2.1791	3	Alpha = .8023

STRUCTURAL BONDING/INCENTIVES

Statistics for	Mean	Variance	Std Dev	N of Variables	
Scale	8.8844	5.7742	2.4030	3	Alpha = .7639

COMMUNICATION/INTERACTION

Statistics for	Mean	Variance	Std Dev	N of Variables	
Scale	7.7482	4.7985	2.1905	2	Alpha = .8517

Conclusions

The Internet offers a revolutionary tool for business development and management. As is the case with corporate America in general, the forest products industry is rapidly expanding its use of the Internet to facilitate business functions. The World Wide Web is the primary vehicle to Internet access, providing forest products firms with a powerful promotional tool. In addition, using the Internet to facilitate sales and purchases is expected to increase dramatically in the next two years.

In this research, we examined current and planned use of Internet computer telecommunications in the marketing and business strategies of firms. A better understanding of

business use of the Internet can aid in developing an Internet buyer-seller relationship model. Specifically, we look at relationship marketing structures that are influenced by this dramatic shift in marketing venue.

Although this study accomplished the objectives of better understanding how the Internet impacts the way that companies do business and the develop a set of constructs to further test Internet buyer-supplier relationships, there are a number of limitations that need to be discussed. First, Internet relationship marketing is in the early stages of development, akin to the awareness and exploration stages of the Dwyer, Shurr and Oh (1987) model of relationship stages. Therefore, it is difficult to gauge relationship structures and outcomes. In the future, as Internet buyer-seller relationships mature, there will be opportunities to conduct additional cross-sectional and longitudinal research at different phases of the relationship. A second limitation is that only one industrial setting (the wood products industry) was studied. A natural next step in this stream of research would be to replicate this study in other industrial sectors. And finally, the fact that this was not a dyadic study is an additional limitation. This is a function, once again, of so few companies engaged in Internet relationships. In the future, as Internet commerce increases, the opportunity to conduct dyadic relationship research will also increase.

Internet marketing partners may give added importance to finding partners with a high level of shared values as a substitute for those variables, personal interactions, social bonding, that traditionally have strengthened the trust and commitment between partners.

Those companies that develop an Internet presence, but more importantly, a corporate level Internet strategy will be in able to improve competitive positioning in the marketplace.

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