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## **Electronic Commerce: Inter-organizational Relationships and Customer Loyalty in Small Businesses in North Dakota**

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## **Executive Summary**

The availability of business-to-business electronic commerce has introduced rapid and unprecedented change in the ways business is conducted. In an effort to track this phenomenon, a researcher working for the North Dakota Small Business Development Center has examined the effects of electronic inter-organizational relationships (IOR) between Small Businesses (SBs) in North Dakota and their loyal customers.

Several authors have argued that the use of web tools can provide a strategic advantage via customer loyalty to SBs. However, that is not always true because many SBs have difficulties achieving the benefits as suggested by media and early research. The primary objective of this study is to examine the moderating effects of the Internet's web tools on the relation between IOR (among SBs) and customer loyalty. Data collected from 82 SBs in North Dakota and processed with Partial Least Square (PLS) show that the use of web tools (which include the level of web content and the level of security on the web) has a positive impact on the relation between cooperation and interdependence, and customer loyalty. However, the impact of the Internet's web tools on the relation between trust and customer loyalty is different, because the use of non-secure web tools reduces the impact of trust on customer loyalty, and surprisingly, the use of secure web tools doesn't increase or decrease the impact of trust on customer loyalty. Highlights from the findings of this study include:

- One more issue that is central to organizational acceptance of electronic commerce is the level of trust that is necessary before SBs may commit to an IOR leading to customer loyalty. This research suggests that trust is necessary for SBs to assess the impact of electronic IOR on their customer loyalty, especially in the setting of electronic commerce, where parties must trust before they will be loyal to each other.
- SBs are perceived to be flexible and adaptable in terms of structure and speed of response. Therefore SBs are perceived to promptly adopt the Internet's web tools technologies.
- SBs have fewer financial resources, lower technical expertise and limited management skills. The use of electronic inter-organizational links between SBs and their customers will reduce both the costs of coordinating economic transactions and the costs of coordinating production. From these cost reduction opportunities offered by the Internet, SBs will have financial capabilities to outsource the technical expertise and the management skills of the electronic commerce functions.
- Because of resource scarcity, SBs work closely with other firms to achieve business goals. Logically, the more SBs participating and working in electronic commerce on the Internet, the further the benefit goes and the resource scarcity diminishes; this can be due to more effective ways of sharing information, lower transaction costs, or better accessibility to a secure web site.

- SBs tend to form alliances (or networks) in order to pool limited resources for large projects. The effective web content allows a group of SBs to agree on how any limited resource like products, a production plan, a purchase order or a contract is described electronically. SBs will implement security on the Internet to coordinate production scheduling for field depots and to coordinate production schedules of multiple manufacturing sites.

## I. INTRODUCTION

Electronic commerce has an important influence on small businesses (SBs') range of activities, providing increased competition on a global scale and allowing them to access wider markets [18]. American SBs have been entering the world of business-to-business (B2B) electronic commerce in large numbers, as both developers and beneficiaries of the systems that are revolutionizing business practices [20]. If current trends continue, it is estimated that 85 percent of SBs will be conducting business over the Internet by the year 2003 [20].

This article focuses on B2B electronic commerce because according to a recent report, the value of goods and services sold via B2B electronic markets will reach \$2.7 trillion by the year 2004, representing some 27% of the overall B2B market and almost 3% of global sales transactions [9]. This growth is slated to occur in the context of a global market for B2B transactions worth \$953 billion, growing to about \$7.29 trillion by 2004 [9]. The *Economist* (February 26, 2000) estimated that B2B electronic commerce will account for more than 80 percent of the expected \$3 trillion U.S. electronic commerce market by 2003 [19]. While these figures give the impression that B2B electronic commerce is expanding fast, the fact remains that many SBs are still sitting on the sidelines [19]. It is no surprise that it has received so much attention from entrepreneurs, executives, investors, authors, scholars and business observers [16].

Since the late 1980s, a growing number of studies on inter-organizational networks have been carried out. One of the primary benefits held out for such networks is their potential to transform inter-organizational relationships (IOR) [13]. The Internet's web tools represent one type of inter-organizational networks. In this paper, IOR refer to relationships between SBs and their customers which are organizations. Reichheld and Schefter [17] stress that loyalty via relationships development and improvement is necessary or even the best-designed electronic commerce model will collapse.

Another determinant of customer loyalty is the degree of trust that customers have in the vendor [5], [17]. The use of the Internet's web tools may have an effect on the relation between trust and customer loyalty because trust is a precursor to customer loyalty. Trust is a willingness to rely on an exchange partner in whom one has confidence [1]. Becoming a trusted partner of a customer is a key to maintaining IOR. Trust can be

achieved by providing the customer with valuable information using a high quality web site.

Anecdotal evidence shows that the Internet can enable an SB that is involved in an IOR with its customer to globalize and achieve multi-million dollar turnover in a couple of years [15]. However, that is not always true because these success stories are not widespread. Many SBs that maintain IOR with their customers have difficulties achieving the benefits as suggested by media and early research [15]. In fact, many SBs have failed to follow the robust technical standards that are needed to make electronic IOR practice economical [6]. In addition, there is little existing research that has empirically tested the impact of the Internet's web tools on IOR which lead to customer loyalty. This article focuses on the relationship between SBs and their customers that are organizations, because as it is currently practiced IOR have not brought companies closer to their customers, but have farther distanced them [8]. The expected Internet contribution to the IOR success should bring SBs closer to their loyal customers.

The primary objective of this study is to examine the effects of the Internet's web tools on the IOR between SBs and their loyal customers.

This article is organized as follows: In Section II, we describe electronic commerce from SME perspectives. In Section III, we present the research model. In Section IV, we explain the research sample. In Section V, we present analysis and results. In Section VI, we outline the discussion. In Section VII, we draw conclusions and recommendations.

## **II. ELECTRONIC COMMERCE FROM SBs PERSPECTIVES**

SBs are the fastest growing segment of most economies and are perceived to be more flexible and adaptable in terms of structure and speed of response than larger organizations [18]. Large companies already exploiting electronic commerce applications offer multiple new services and receive significant benefit from them [18]. This success is not limited to large corporations because the lower-cost Internet technologies have diminished the advantages previously held by large multinational corporations [13]. SBs are also set to benefit from electronic commerce on the Internet [15]. Some authors

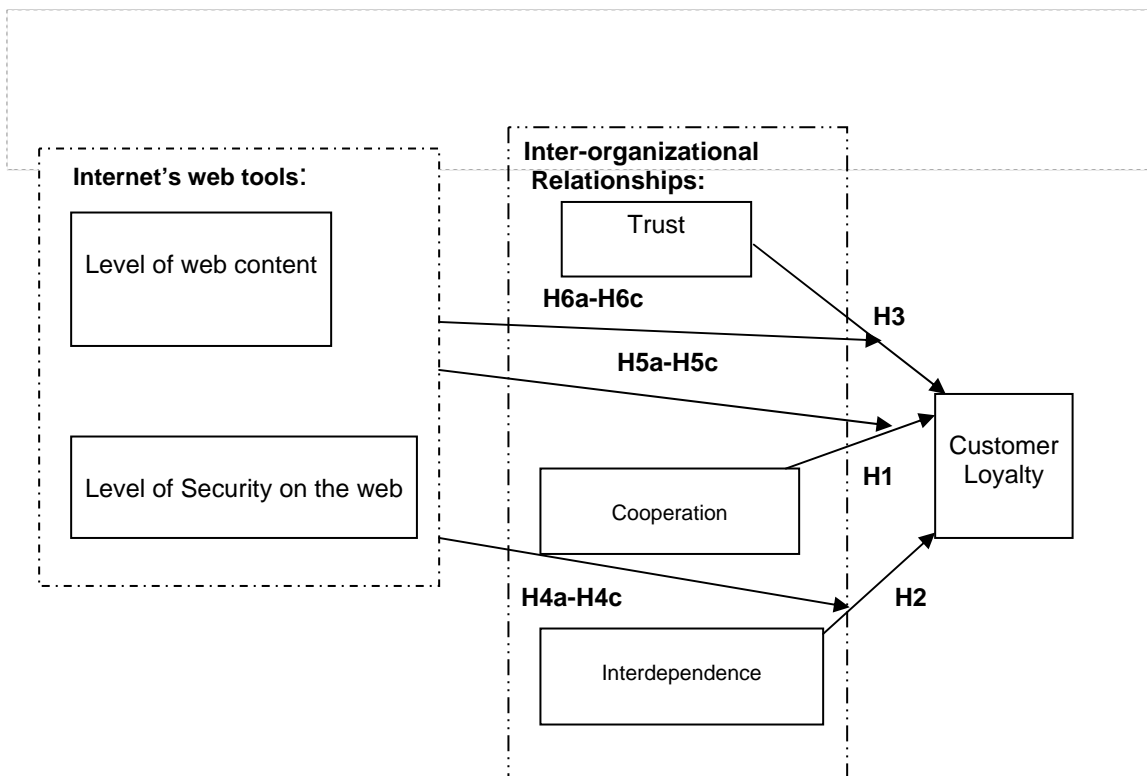
conclude that because the entry barriers are so low, SBs can establish presence on the Internet, which thus helps level the playing field between small and large firms [14]. Compared with large enterprises, SBs have fewer financial resources, lower technical expertise, and more limited management skills [2]. SBs often do not have time to gather information and sometimes this leads to poor decision-making [15].

As SBs are less complex than large organizations, the entrepreneurs and senior managers are usually involved in every organizational process [3]. Therefore, they tend to have a comprehensive perspective of all organizational issues, including the Internet [3]. The main obstacle to the use of electronic commerce on the Internet between SBs and their customers seems to be the lack of knowledge about the real advantages these technologies could add to their business and, more generally, the culture and resistance to change that characterizes small entrepreneurs [18]. SBs are often characterized by a lack of specialized staff and strategic management of the Internet; as a result, they often choose to outsource these activities, possibly even the complete electronic commerce project, to reduce the internal costs and improve business performance [18].

### **III. The Research Model**

The use of Internet technology to link SBs to their customers can be demonstrated to have an indirect effect on their loyal customer base. The Internet's web tools, such as the level of web content and the level of security on the web, can support the formation and maintenance of IOR because they facilitate the way organizations cooperate with, depend upon, and trust each other. The quality of a web site can directly influence the type of relationships developed between SBs and their loyal customers.

The content of the research model, identified through the literature review and the objective of this paper, are as follows: the dependent variable will be customer loyalty, the independent variables will be the IOR components (cooperation, interdependence and trust) and the moderating variables will be the Internet's web tools components (level of web content and level of security on the web). Each of them is presented in the research model and in Table 1.



**Figure 1. The research Model**

**Table 1 : Definitions of variables and hypotheses**

<b>Variables and their definitions</b>	<b>Hypotheses</b>
<p><b>Customer loyalty</b></p> <p>In this paper, loyalty is defined as building and sustaining a trusted relationship with customers that leads to the customers' repeated purchases of products or services over a given period of time [5].</p>	
<p><b>IOR from SBs perspectives</b></p> <p>In this study, an IOR is defined as the process whereby an SB builds long-term relationships with current customers so that both seller and buyer work toward a common set of specified goals [7]. An IOR is heavily dependent upon relationships based on cooperation, interdependence and trust.</p>	
<p><b>Cooperation</b></p> <p>It is defined in this study as coordinated actions taken by parties to achieve mutual outcomes [12].</p>	<i>H1: Cooperation will have a positive effect on customer loyalty.</i>
<p><b>Interdependence</b></p> <p>Parties involved in an IOR become inter-dependent when there are significant switching costs associated with replacing the incumbent suppliers [12].</p>	<i>H2: Interdependence will have a positive effect on customer loyalty.</i>
<p><b>Trust</b></p> <p>According to Ganesan [1994], trust is the extent to which the customer believes that the vendor has intentions and motives that are beneficial to the customer [12].</p>	<i>H3: Trust will have a positive effect on customer loyalty</i>
<p><b>Internet's web tools</b></p> <p>There are essentially two variables that encompass the construct of the Internet's web tools:</p> <ul style="list-style-type: none"> <li>• the level of web content,</li> <li>• the level of security on the Internet.</li> </ul>	<p><i>H4: The level of web content will have a positive effect on the relation between IOR and customer loyalty.</i></p> <p><i>H5: The level of security on the web will have a positive effect on the relation between IOR and customer loyalty.</i></p>
<p><b>The level of web content</b></p> <p>The level of web content is defined as the new Internet-based channels through which SBs can display information about themselves and the products and services they offer or, better yet, as a dynamic interactive portal [11], [21].</p>	<p><i>H4a: The level of web content will have a positive effect on the relation between cooperation and customer loyalty.</i></p> <p><i>H4b: The level of web content will have a positive effect on the relation between interdependence and customer loyalty.</i></p> <p><i>H4c: The level of web content will have a positive effect on the relation between trust and customer loyalty.</i></p>
<p><b>The level of security on the web</b></p> <p>The level of security on the web is defined as the risks associated with web technology assets such as loss, disruption, and unauthorized access of information, data and Internet resources [4].</p>	<p><i>H5a: The level of security on the web will have a positive effect on the relation between cooperation and customer loyalty.</i></p> <p><i>H5b: The level of security on the web will have a positive effect on the relation between interdependence and customer loyalty.</i></p>

	<i>H5c: The level of security on the web will have a positive effect on the relation between trust and customer loyalty.</i>
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#### **IV. THE STUDY SAMPLE**

The sample consists of 700 SBs in the North Dakota, each having a website and an e-mail address. The senior sales representative, company executive, or president of each of the above companies was sent a cover letter through the Internet (by e-mail) along with the URL of the web site containing the research instrument (questionnaire). As an incentive, respondents were told that a summary of the results would be sent at their request. A total of 82 companies responded, producing a 12% response rate. The response rate achieved is acceptable, given the length of the research instrument, the technical and confidential nature of the information requested and the nature of the respondent.

#### **V. ANALYSIS AND RESULTS**

##### **Characteristics of Participating SBs**

The respondents were spread across 10 different industry sectors. As shown in Table 2, seventy four percent (74%) of the respondents were primarily involved in Manufacturing, Information Technologies Hardware/Software, and others sectors. In terms of annual sales volume, 40% of the sample had annual sales of less than \$1 million, while 42% had annual sales between \$1 and \$10 million and 18% don't want to share that information. About 40% of the SBs had less than 10 employees, while roughly 42% had less than 50 employees. Approximately 14% of the SBs possess between 50 and 500 employees. Only 4% possess more than 500 employees.

Most of the participating SBs (about 64%) have been in business for more than 10 years, while 32% have been in business between 1 and 9 years. A total of 75% of the respondents claimed to have had a company web site in existence for 1 to 6 years, while 18% of SBs claimed to have been online for less than 1 year. A total of 81% of the SBs have 10% of their budget invested in web site development and/or maintenance, while 7% of SBs invested between 11 and 30% of their budget in online resources. Only 2% of SBs invested more than 50% of their annual budget in web site development and/or

maintenance. In terms of location, 18% of SBs are located in the western part of North Dakota; the same percentage is located in the eastern part; while 9% does business in the southern part, and 43% in the northern part of North Dakota. The rest of SBs (12%) is spread across other regions.

**Table 2: Characteristics of the SBs sampled**

<b>Industry sector</b>	<b>Percentage</b>
<b>Automobile and Transportation</b>	2%
<b>Chemicals</b>	2%
IT (non-internet) hardware and software	9%
Internet Access and Service Providers	2%
<b>Manufacturing</b>	29%
Farmers	2%
<b>Health Industry</b>	4%
<b>Finance</b>	2%
Banks	4%
Consulting Firms	4%
Other sectors	40%
<b>The number of years SBs have been in business</b>	<b>Percentage</b>
Less than one year	4%
1-3 years	12%
4-6 years	10%
7-9 years	10%
10 years or more	64%
<b>The size of SB (persons)</b>	<b>Percentage</b>
Less than 10 employees	40%
11-50 employees	42%
51-100 employees	6%
101-500 employees	8%
501 employees or more	4%
<b>The revenue (turnover) of firms</b>	<b>Percentage</b>
Less than 0.75\$ million	32%
\$0.76-\$1 million	8%
\$2-5 million	22%
\$6-10 million	10%
\$11 million or more	10%
Don't want to share	18%
<b>The duration of SB web site's existence</b>	<b>Percentage</b>
Less than one year	18%
1-3 years	33%
4-6 years	42%
7-9 years	7%
9 years or more	0%
<b>The percentage of SB per region</b>	<b>Percentage</b>
West	18%
East	18%

South	9%
North	43%
Other region	12%
<b>The percentage of SB' budget invested in web site development and/or maintenance in North Dakota</b>	<b>Percentage</b>
Less than 10%	81%
11-30%	17%
31-50%	0%
51-70%	2%
71-100%	0%

### **Hypothesis Testing (H1, H2 and H3)**

The test of Hypothesis H1, H2 and H3 on the sample of the 82 respondents was carried out with a statistical tool named PLS-GRAPH. Table 3 shows that Student's T (t value) of impacts of interdependence (2.3967), cooperation (2.1152), and trust (1.8890) on customer loyalty are higher than 1.65 ( $P \leq 0.05$ ). This first hypothesis test shows that these three variables of the IOR have a positive and direct impact on customer loyalty. In other words, customer loyalty is increased ( $R^2 = .80$ ) by interdependence, by cooperation, and by trust, supporting H1, H2, and H3 respectively.

Table 3 : Path Coefficient and Student's T (T values)

	Loyalty ( $R^2 = .80$ )	
	Path coefficient	T-Statistic
Interdependence	0.4569	2.3967*
Cooperation	0.3384	2.1152*
Trust	0.2940	1.8890*

\*T-Student significant at 1.64 ( $P \leq 0.05$ )

### **Hypothesis Testing (H4, H5, and H6)**

To test the interaction effects, analysis was pursued with the three variables (interdependence, cooperation and trust) that have a positive and direct impact on customer loyalty. The two variables of the Internet's web tools play a moderating role. Therefore the interaction tests of Hypotheses H4 and H5 were carried out with PLS-GRAPH. Table 4 presents the results of this test of the interaction effect and the size of the interaction effect, including the statistical values of the Student (T-statistic).

Table 4: Path Coefficient and Student's T (T values) for the interaction effect

	Loyalty	
	Path coefficient (Beta standardized)	T-Statistic
Interdependence	0.3475	2.8521*
Cooperation	0.4510	2.8122*
Trust	0.4215	3.2281*
Level of security on the web X Interdependence	0.3996	1.9013*
Level of web content X Interdependence	0.3971	1.8634*
Level of security on the web X Cooperation	0.4620	2.5671*
Level of web content X Cooperation	0.5460	3.2218*
Level of security on the web X Trust	0.4219	3.2225*
Level of web content X Trust	0.3520	1.5752

\*T-Student significant at 1.64 ( $P \leq 0.05$ )

The results from the survey of 82 SBs in North Dakota concur: because of the significant value of T-statistics in the last column of table 4, the Internet's web tools (which include the level of web content and the level of security on the web) have a positive impact on the link between cooperation and interdependence on customer loyalty. However, that impact is debatable for trust. The path coefficient with interaction is lower for the impact of the level of web content on the relation between trust and customer loyalty; this indicates a lower size of the interaction effect. That impact differs from the impact of the level of security on the Internet on the relation between trust and customer loyalty. For example, the beta for the impact of trust on customer loyalty is 0.4215. The interaction betas for the impact of the Internet's web tools on the relation between trust and customer loyalty are 0.4219 and 0.3520 respectively. In consequence, the use of non-secure web tools reduces the impact of trust on customer loyalty and the use of secure web tools doesn't increase or decrease the impact of trust on customer loyalty. There are improvements with the interactions between the use of web tools and interdependence, and the use of web tools and cooperation on loyalty. The betas for the impact of interdependence on loyalty and for the impact of cooperation on loyalty are 0.3475 and 0.4510. The interaction betas for the impact of the Internet's web tools on the relation between interdependence and loyalty are 0.3996 and 0.3971. The interaction betas for the impact of the Internet's web tools on the relation between cooperation and loyalty are 0.4620 and 0.5460.

## **VI. Discussion and Implications**

We found support for eight of our nine hypotheses. More importantly, we found that the use of web sites increases cooperation and interdependence between SBs and their loyal customers. We also found that the impact of the use of secure web sites on the relation between trust and customer loyalty is neutral. However, we failed to find support for the impact of the use of non-secure web sites on the relation between trust and customer loyalty. That means, if SBs use non secure web sites to maintain a relationship with their customers, trust in SBs will decrease, therefore customers will be less loyal to SBs. There are many explanations of this, which are discussed below.

The results of this study show that the trustworthiness of an SB's customer is perceived to be low when the Internet web tools are not secure. Therefore, the use of a non-secure web site yields a lack of trust and diminishes the loyalty advantage obtained from a customer. Moreover, badly secured and well managed Internet's web tools could lead to the dissolution of trust in an IOR that will negatively impact customer loyalty.

The results of this study also show that the use of a secure web site doesn't increase or decrease the trust SBs previously gained from their customers. Quelch and Klein (1996) speculate that in the processes of Internet development, trust is an important factor in stimulating purchases over the Internet [10] mainly because of security issues. For example, because some SBs and their customers worry about confidentiality and the use of information from the web site, they attempt to keep pricing and ordering details from competitors. They require that their customers sign legally binding agreements not to misuse information from the web site. Paradoxically, and in contrast to the speculations of many authors, we found in our study that trust in the SBs was not always considered relevant to the level of security on the Internet. In other words, trust in secure web sites does not seem to act as a substitute for trust in SBs.

## **VII. CONCLUSION**

### **Recommendations**

The main contribution of this study has been to provide empirical evidence on the impact of the Internet's web tools on the relation between cooperation, interdependence, and trust and customer loyalty. In fact, business is based on trust between two parties, whether the business is conducted in person, by phone, or over a web site. The customer can get a sense of the company and the person from face-to-face discussions or from the appearance and location of the office; but this element of trust is difficult to reconstruct in electronic transactions because all the customer knows about the supplier is what can be seen on the web site. Therefore, creating trust via the web depends on fostering IOR through electronic means of well-established web tools. When SBs treat the web as more than just a communication tool, the trust between companies will grow, an IOR will be developed and maintained, and customer loyalty will develop.

The findings of this research will help SBs identify the IOR factors which they should emphasize when the Internet's web tools are used to augment customer loyalty:

- One more issue that is central to organizational acceptance of electronic commerce is the level of trust that is necessary before SBs may commit to an IOR leading to customer loyalty. This research suggests that trust is necessary for SBs to assess the impact of electronic IOR on their customer loyalty, especially in the setting of electronic commerce, where parties must trust before they will be loyal to each other.
- SBs are perceived to be flexible and adaptable in terms of structure and speed of response. Therefore SBs are perceived to promptly adopt the Internet's web tools technologies.
- SBs have fewer financial resources, lower technical expertise and limited management skills. The use of electronic inter-organizational links between SBs and their customers will reduce both the costs of coordinating economic transactions and the costs of coordinating production. From these cost reduction opportunities offered by the Internet, SBs will have financial capabilities to

outsource the technical expertise and the management skills of the electronic commerce functions.

- Because of resource scarcity, SBs work closely with other firms to achieve business goals. Logically, the more SBs participating and working in electronic commerce on the Internet, the further the benefit goes and the resource scarcity diminishes; this can be due to more effective ways of sharing information, lower transaction costs, or better accessibility to a secure web site.
- SBs tend to form alliances (or networks) in order to pool limited resources for large projects. The effective web content allows a group of SBs to agree on how any limited resource like products, a production plan, a purchase order or a contact is described electronically. SBs will implement security on the Internet to coordinate production scheduling for field depots and to coordinate production schedules of multiple manufacturing sites.

## References

- [1] Berry, Leonard, L., (1995), Relationships Marketing of Services- Growing Interest, Emerging Perspectives, Journal of Academy of Marketing Science, Vol. 23, No. 4, pp. 236-245.
- [2] Blili, S. and L. Raymond (1993) "IT: Threats and opportunities for small and medium-sized enterprises", International Journal of Information Management, 13, pp. 439-448
- [3] Caldeira, M. M. and M. J. Ward (2002) "Understanding the successful adoption and use of IS/IT in SMEs: an explanation from Portuguese manufacturing industries", Information Systems Journal, 12, pp. 121-125.
- [4] Cavusoglu, H., S. Raghunathan and B. Mishra (2002) "Optimal design of information technology security architecture", Twenty-Third ICIS, pp. 749-756.
- [5] Chow Simeon and Holden Reed (1997), Toward An Understanding Of Loyalty: The Moderating Role Of Trust, Journal Of Managerial Issues, Vol.9, No 3, pp.275-298.
- [6] Dai, Q. and R. J. Kauffman (2001) "Business models for internet-based e-procurement systems and B2B electronic markets: An exploratory Assessment", 34th Hawaii International Conference on Systems Sciences, January 2001, Maui, HI.
- [7] Evans, Joel R. and Laskin Richard L. (1994), The Relationship Marketing Process : A Conceptualization and Application, Industrial Marketing Management, Vol. 23, No. 5, pp. 439-452.
- [8] Fournier, S., S. Dobscha, and D. G. Mick (1998) "Preventing the premature death of relationship marketing", Harvard Business Review, (1)2, pp. 17-36.
- [9] Gartner Group. "GartnerGroup Forecasts Worldwide Business-to-Business E-Commerce to Reach \$7.29 Trillion in 2004, "press release, February 17, 2000 (available at [http://gartner11.gartnerweb.com/public static/aboutgg/pressrel/pr012600c.html](http://gartner11.gartnerweb.com/public/static/aboutgg/pressrel/pr012600c.html))
- [10] Jarvenpaa Sirkka L. and Noam Tractinski (1999), Consumer Trust in an Internet Store: A Cross-Cultural Validation, Journal of Computer-Mediated Communication, Vol.5, No.2.
- [11] Joseph V. Benoy, Cook Robert W., and Javalgi Rajshekhar G. (2001), Marketing on the Web : How Executives Feel, What Businesses Do, Business Horizons, Vol. 44, No. 4, pp. 32- 40.
- [12] Lewin, Jeffrey E. and Johnston Wesley J. (1997), Relationship Marketing Theory in Practice : A Case Study, Journal of Business Research , Vol. 39, No. 1, pp. 23-31.
- [13] Li, F. and H. Williams (1999) "Interfirm collaboration through interfirm networks", Information Systems Journal, (9)2, pp. 103-115.
- [14] Lituchy, T., R. and A. Rail (2000) "Bed and Breakfasts, Small Inns, and the Internet: The Impact of Technology on the Globalization of Small Businesses", Journal of International Marketing, 8, pp. 86-97.
- [15] Poon, S. (2000) "Business environment and internet commerce benefit---a small business perspective", European Journal of Information Systems, 9, pp. 72-81.
- [16] Porter Michael E. (2001), Strategy and the Internet, Harvard Business Review, Vol. 79, No. 3, pp. 63-78.
- [17] Reichheld Frederick F., and Schefter Phil (2000), Your Secret Weapon on the Web, Havard Business Review, Vol. 78, No. 4, pp. 105-113.
- [18] Tagliavini, M., A. Ravarini and A. Antonelli (2001) "An evaluation model for electronic commerce activities within SMEs", Information Technology and Management, 2, pp. 211-230.

[19] Teo, H. H., K. K. Wei and I. Benbasat (2003) "Predicting Intention to Adopt Interorganizational Linkages: An Institutional Perspective", *MIS Quarterly*, (27)1, pp. 19-49.

[20] U.S. SBA, Office of Advocacy (2000) "Small Business Expansions in Electronic Commerce", [Http://www.SBA.GOV/ADVO/STATS/](http://www.SBA.GOV/ADVO/STATS/) (current June 2000)

[21] Young Dale and Benamati John (2000), Differences in Public Web Sites: The Current State of Large U.S. Firms, *Journal of Electronic Commerce Research*, Vol. 1, No. 3, 19 pages.