On Inter-Organizational EC Collaboration

The impact of Inter-Cultural Communication Apprehension

Ron Chi-Wai Kwok
School of Management
State University of New York at
Binghamton
rkwok@binghamton.edu

Matthew Lee
Department of Information
Systems
City University of Hong Kong
ismatlee@cityu.edu.hk

Efraim Turban
Department of Information
Systems
City University of Hong Kong
isturban@cityu.edu.hk

Abstract

Inter-cultural communication apprehension is one of the major factors that may influence the processes of the inter-organization collaboration in electronic commerce. It is an obstruction, prohibiting inter-organization collaboration in different ways. If we can manage the inter-cultural communication apprehension properly, we may be able to bring organizations of different cultures together for successful completion of EC collaborative works. This paper summarizes previous works on inter-cultural communication apprehension and identifies three potential factors that could influence inter-cultural communication apprehension: cultural climate, technology environment and communication leadership. Also, this paper proposes a research framework and several hypotheses for future testing.

1. Introduction

As Electronic Commerce (EC) becomes popular, more organizations extend their collaboration processes on the web from group level to intra-organization as well as inter-organization levels. Such collaborations include a diversity of activities such as supply chain collaboration, outsourcing-related activities, EC strategic planning logistics and demand forecast. Mechanisms for the collaboration process and structure that bring groups and organizations together have become popular topics in current EC research. Westley and Vredenburg (1997) summarize previous works on inter-organization collaboration and suggest that certain factors such as technology, leadership, or culture influence the processes of the inter-organization collaboration. Figure 1 illustrates the factors that may influence successful completion of collaborative work. Further investigation of Westley and Vredenburg's ideas may be useful for researchers to understand the dynamics of inter-organizational EC collaboration.

Experimental and field study research regarding the use of groupware to support groups of people working together in different locations have been going on for more than a decade (e.g., see Alavi et al., 1997; Tung and Turban, 1998; Vogel et al., 1999). Originally, experiments were intended to investigate the effectiveness of different group support technologies on the process of people working together. It is only since 1997 that pioneering efforts were reported in connecting these experiments to electronic commerce (Jarvenpaa and Leidner, 1998; Jarvenpaa et al., 1998; Masetti and Lobert-Jones, 1997-98; Walden and Turban, 1998; 2000). Recently attention has been given to cultural aspects relating to inter-organizational collaboration in electronic commerce (e.g., Cole and O'Keefe, 2000).

In an attempt to examine the effects of group support technologies on EC collaboration, we conducted several rounds of experiments involving students and real world companies in Finland (Abo Akademi University), California (California State University Long Beach) and Hong Kong (City University of Hong Kong) (see Walden and Turban, 1998). The research model and hypotheses described in this paper are based in part on the data collected in the fourth phase of the continuous collaboration between faculty, students and companies in the three countries (see Walden and Turban, 2000).

The objectives of the fourth phase of the exploratory research were to investigate the effectiveness of hands-on involvement in learning about global EC as perceived by the participating students, assess the methodology and procedures of this cross-cultural corporation planning project, and assess the effectiveness of several group support tools. In addition, we were interested in finding if significant differences in students' perception regarding the experiments exist, based on the country where they are studying. Assuming that the cultural profiles of the students in the different continents are different (e.g., see Hofstede, 1991), we wanted to find out if such differences still exist, and if participation in a collaborative project would cause a change in cultural profiles.

In this paper, we investigate three factors: cultural climate, technological environment and communication leadership and their relationship to inter-organizational EC collaboration, as shown in Figure 1. Based on preliminary findings we postulated several hypotheses which we recommend for testing in future experiments.
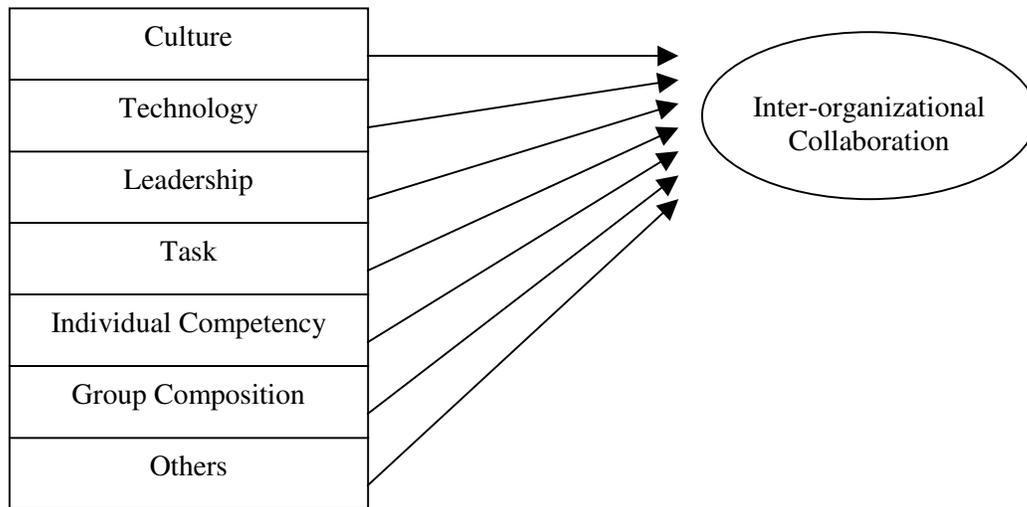
Figure 1. Determinants of Inter-Organization Collaboration
(Adapted from Westley and Vredenburg 1997)

2. Overview of the proposed research model

Our previous research identifies three factors that may have significant influences on the effectiveness of the inter-organization collaboration: cultural climate, technology environment and communication leadership. Figure 2 shows the research model which is the basis for our hypotheses formulation for proposed future research. The model is based on the broader model shown in Figure 1.
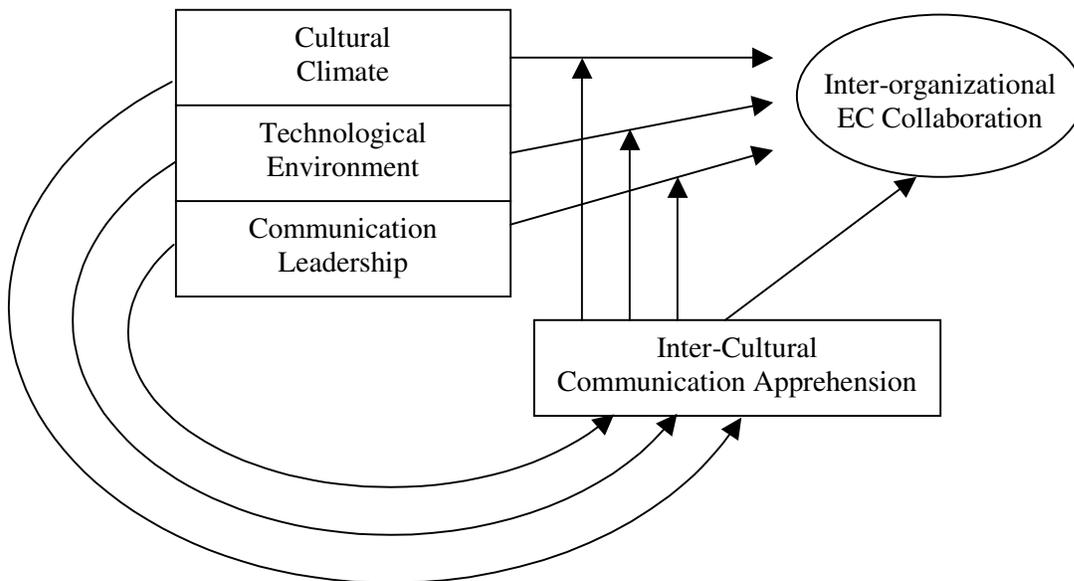
Figure 2. The Research Model

2.1. Inter-cultural communication apprehension

Culture appears as the "collective programming of spirits which separates the members of a group or a category of persons from others" (Hofstede, 1994, p.4). Several studies suggested a relationship between culture and inter-organizational collaboration. For example, Dube and Robey (1999) found that the presence of outsourcing partners with culture differences brought great uncertainty and ambiguity. They suggested that understanding the cultural foundation of management practices is a pre-requisite for the success of inter-organization collaboration. Cross-cultural differences in managerial values have been recognized as being a crucial factor in the global marketplace where cooperation and understanding are essential for effective collaboration (Terpstra and David 1985).

It is well documented that there are dysfunctions in groupwork (Nunamaker et al. 1991, Shaw 1981). For example, fear of retaliations may result in refusal to contribute in group collaboration (Diehl and Stroebe 1987). Such problems also occur in inter-organizational EC collaboration. When a person interacts with people of other cultures and encounters cultural differences, he or she inclines to view people as strangers (Gudykunst and Kim 1997). Such a situation may lead to inter-cultural communication apprehension (Neuliep and McCroskey 1997). Inter-cultural communication apprehension may be an important problem prohibiting inter-organization collaboration. Neuliep and McCroskey (1997) defined inter-cultural communication apprehension as the fear of anxiety associated with interacting with people of different cultures and/or racial groups.

Neuliep and Ryan (1998) summarize previous works on inter-cultural communication apprehension and identify several potential factors that could influence inter-cultural communication apprehension (see Figure 3).
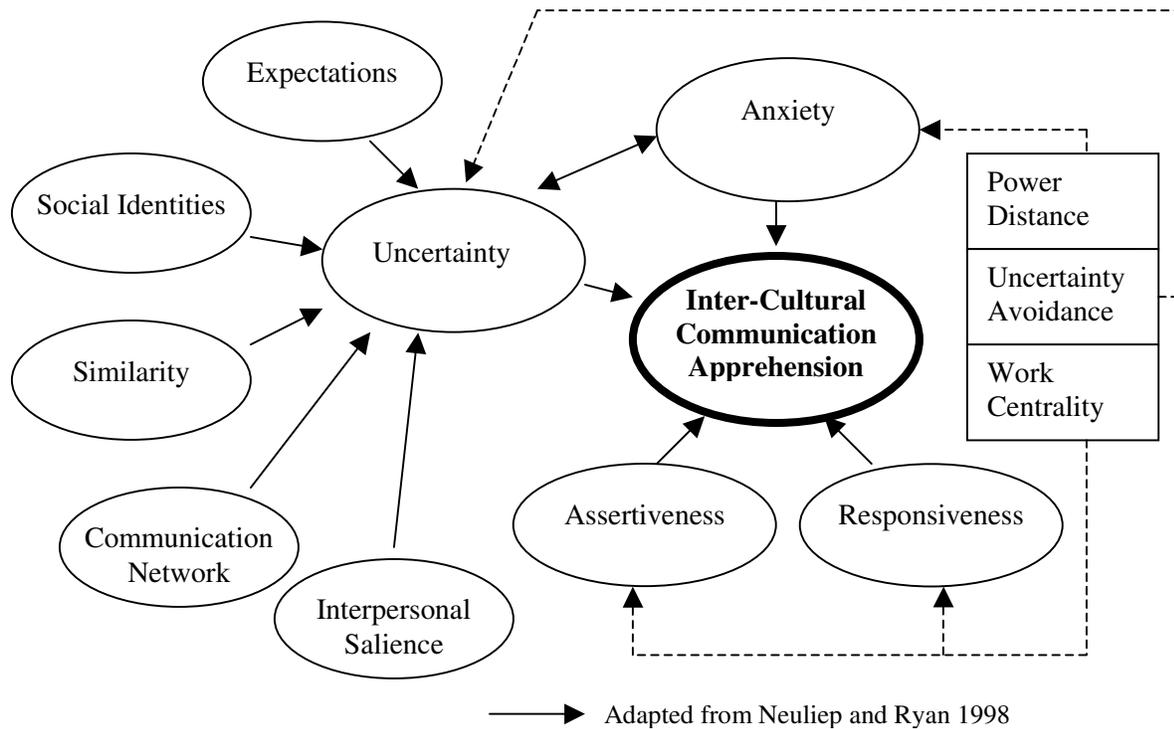

Figure 3. Potential Effects on Inter-Cultural Communication Apprehension

Figure 3 shows that the ability to manage anxiety and uncertainty assures effective inter-cultural communication (Gudykunst 1995). Based on Uncertainty Reduction Theory, whenever two people interact for the first time, uncertainty exists (Berger and Calabrese 1975). The higher the people perceive an uncertainty, the higher they feel anxiety. Five fundamental factors: expectations, social identities, degree of similarity between interactants, shared communication networks, and the interpersonal salience of the contact with strangers may affect people's perception on uncertainty (Gudykunst 1988; 1995). On the other hand, two dimensions of socio-communication orientation: assertiveness and responsiveness may reduce

inter-cultural communication apprehension (McCroskey and Richmond 1996).

Let us return now to our proposed research model (Figure 2). As you may recall we identified 3 possible independent variables that may impact inter-organizational EC collaboration: culture, technology and communication leadership.

3. The proposed research

The framework presented in Figures 2 and 3 suggest that we need to examine the independent variable in light of some intervening variables related to communication apprehension.

3.1. Cultural climate

Hofstede et al. (1990) proposed six dimensions of culture climate of which we consider three here: power distance, uncertainty avoidance and work centrality. These could be used to determine the individual personality traits of group members. We argue that these three dimensions of cultural climate may influence inter-cultural communication apprehension.

Power distance is associated with the extent to which the less powerful members of institutions and organizations expect and accept that power is distributed unequally (Hofstede 1991, p.28). In addition, power distance explains the degree to which decision making is centralized in a country: the larger the power distance is, the more likely it is that power will be centralized (Elenkov, 1998). With high power distance, people are likely to endorse inequality of power. Then, the anxiety caused by the perception of inequality of power among different culture in inter-organization collaboration is likely to be reduced. As a result, inter-cultural communication apprehension can be reduced. Based on the mentioned effects of power distance on the inter-organizational EC collaboration, we propose the following hypothesis:

H1a: Groups with higher perception of power distance will perceive lower level of inter-cultural communication apprehension, leading to higher level of inter-organizational EC collaboration.

Uncertainty avoidance is related with the extent to which the members of a culture feel threatened by uncertain or unknown situations. (Hofstede 1991, p.113). It deals with a society's tolerance for uncertainty and ambiguity. It indicates to what extent group members feel either easy or stressful in uncertain situations. A culture with high uncertainty avoidance may try to minimize and control the possibility of unknown situations by strict laws, rules, and security measures (Hofstede et. al. 1990, p.301). If members of an organizational culture have high

degree of uncertainty avoidance, they would likely to have a high degree of anxiety when interacting with business partners from another culture (Neuliep and Ryan 1998). Such situation may lead to inter-cultural communication apprehension, resulting in low inter-organizational EC collaboration. Based on the mentioned effects of uncertainty avoidance on the inter-organizational EC collaboration, the following hypothesis is postulated:

H1b: Groups with higher perception of uncertainty avoidance will perceive higher level of inter-cultural communication apprehension, leading to lower level of inter-organizational EC collaboration.

Work centrality is associated with the extent to which members of a culture take a central place to work in a person's total life system (Hofstede et. al. 1990, p.301). It also relates to a person's perception of his/her job involvement. In addition, work centrality is linked with the two dimensions of socio-communication orientation: assertiveness and responsiveness (see Figure 3) associated with reduction of uncertainty. Assertiveness refers to initiation and maintenance of conversations between group members, while responsiveness concerns with the invitation of others to interact. Hofstede et. al. (1990) suggested that work centrality could be used to describe the working relationships between members of an organization: the larger the work centrality is, the better the working relationship with the boss and colleagues will be. The opportunities of helping others will also be increased. Such situation of high work centrality may lead to high level of assertiveness and responsiveness, resulting in low inter-cultural communication apprehension and high inter-organizational EC collaboration. Based on the conceptualisation of work centrality and its association with assertiveness and responsiveness to reduce uncertainty, the following hypothesis is formed:

H1c: Groups with higher perception of work centrality will perceive lower level of inter-cultural communication apprehension, leading to higher level of inter-organizational EC collaboration.

These and the forthcoming hypotheses can be tested in quasi experiments such as those conducted between City University of Hong Kong and Abo Akademi University in Finland. Let's look at the other dimensions and potential hypotheses.

3.2. Technological environment

The second factor that could influence the outcome of inter-organization collaboration is the technological

environment provided for such collaboration. In this paper, it is defined as the communication media made available to the group. The presence of communication media may impact the outcome of the inter-organization collaboration. There are several types of media (i.e. email, chat room, remote groupware and video-conference) that can be used to facilitate for inter-organization collaboration. Which is a better one and why? Communication media selection has been an important issue in organizations (Carlson and Davis, 1998).

The increasing inter-organizational collaboration in global business-to-business electronic commerce has imposed great demands on managers' abilities to handle dispersed cross-organizational and cross-cultural activities. The use of communication technologies is expected to help managers in their efforts to handle such activities. These communication technologies facilitate inter-organizational EC collaboration such as idea generation and deliberation, project evaluation, and decision making.

Although we expect that the introduction of communication technology can help people handle inter-organization collaborative activities, there are problems when people interact with each other using these computer-mediated communication tools. Problems such as lack of information (uncertainty) and information ambiguity (equivocality) may adversely affect the quality of communication between colleagues in an organization (Daft and Lengel, 1986). These problems may also happen in inter-organizational EC collaboration, especially when the organizations are in different countries and may lead to inter-cultural communication apprehension.

Daft and Lengel (1986) explored the answers for two questions: "Why do organizations process information?" and "How do organizations process information?". They identified several organizational factors that could influence uncertainty and equivocality (see Figure 4).
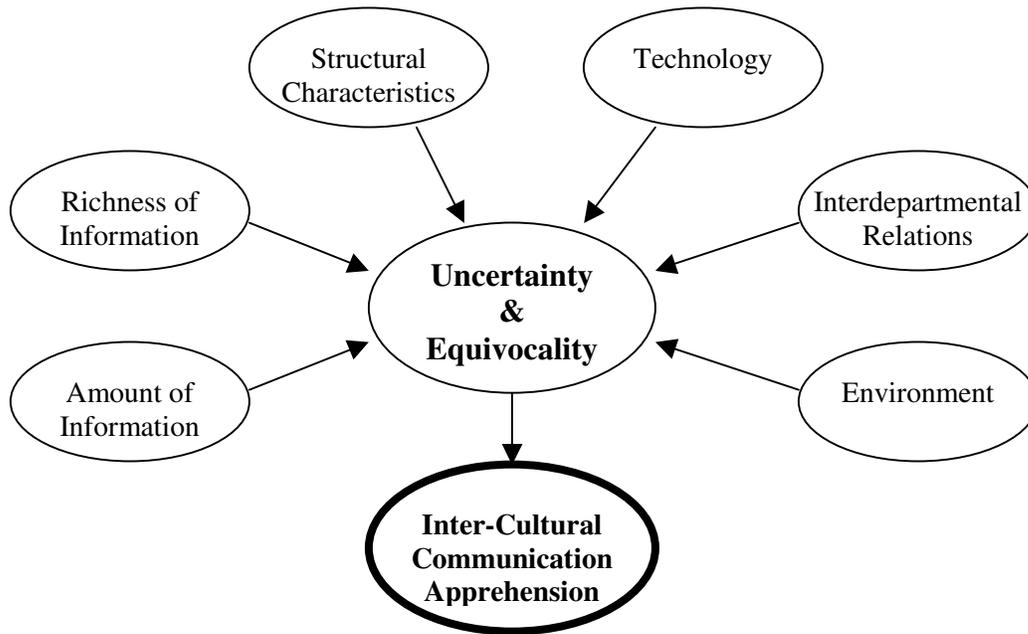

Figure 4. Potential influencing factors on Inter-Cultural Communication Apprehension
(Modified from Daft and Lengel, 1986)

Figure 4 shows that information uncertainty and equivocality represent two forces that may influence inter-cultural communication apprehension. Depending on the amount and richness of information, type of technology, degree of required interdepartmental integration, and the nature of the environment, organization structural mechanisms can be adopted to provide additional source of information and interpretation about ambiguous events (Daft and Lengel, 1986).

Interestingly, technology can be a source of problems of information uncertainty and equivocality, it can also be the medication to heal these problems when being used appropriately. The success of the use of technologies for inter-cultural collaboration is not a given, but it depends on how technologies are applied in organizations. There is a stream of research examining various media of computer-supported communication technologies and their role in enhancing group and organizational collaboration. Researchers in this field have studied various social and

technological issues associated with traditional face-to-face meetings, email, audio teleconferencing, remote groupware, and video conferencing (Chapanis, et al., 1972; Rice and Associates, 1984; Chidambaram and Jones, 1993)

According to the media richness theory, different communication media vary in their ability to improve understanding and can be characterized as high or low in "richness" depending on their ability to facilitate shared meaning based on four criteria: 1) the ability to give immediate feedback which generating and reinforcing understanding; 2) the ability to provide multiple cues such as body gesture, voice tone and graphical symbol; 3) the ability to provide language variety such as natural language, numbers and language symbols for conveying precisely concepts and ideas; and 4) the ability to tailor-made or personalize the communication medium (Daft et al., 1987).

In our research, we used communication tools as different level of "richness" to support cross-cultural collaboration. Our preliminary findings indicated that different communication tools could affect the outcome of collaboration at different levels (see Turban et. al. [2000]). Thus, the following hypothesis is postulated:

H2: Groups supported by different communication tools with different levels of "richness" will perceive different levels of inter-cultural communication apprehension, leading to different levels of inter-organizational EC collaboration.

3.3. Communication leadership

Over the past 40 years, numerous methods, practices, and technologies have been developed and implemented for the purpose of improving group collaboration (McPherson, 1967; Moore, 1987; Phillips and Phillips, 1993; Chidambaram and Bostrom, 1993). Many of these methods manage the total communication interaction and allocate a communication leader (facilitator) role to implement them (Doyle and Straus, 1976; Kepner and Tregoe, 1981; Griffith et al., 1998; Hirokawa and Gouran, 1989). Likewise, small group researchers have long sought to determine whether group interaction and performance can be facilitated through the manipulation of a group's communication network structure (Bavelas, 1950; Leavitt, 1951; McGrath, 1984; Shaw, 1981).

The essential function of the communication leader is to create and protect the group meeting environment so that group interaction can take place easily (Phillips and Phillips, 1993). The main task of a communication leader is to improve a group's communication and information flow, and to make the outcome easier to achieve (Griffith et al., 1998). A communication leader is also a process guide and someone who makes interaction easier or more convenient (Schnman, 1996). The main belief behind communication leadership is that full cooperation between all people is both possible and desirable, where values of equality, equal opportunity, power sharing and shared decision making with other network members who tend to form a selectively interdependent set are basic to full cooperation (Hunter et al., 1996, Trist 1983).

By managing the socioemotional issues in meetings, the communication leader keeps group members in a resourceful and positive emotional state (Kelly and Bostrom, 1998). It encourages effective task and relationship behaviors among group members, and deals with disruptive influences in the meeting (Bostrom et al., 1993). This nature of communication leadership could reduce the pressure to conform and possibly the inter-cultural communication apprehension. Group members of different cultures are then motivated to present their viewpoints during the meeting. Due to less negative reaction to criticism and more objective evaluation, more inter-organizational collaboration may be encouraged. As the degree of collaboration increases, uncertainty decreases (Berger and Calabrese 1975).

By managing the sequencing, connectedness of the group activities, and breaking the task into smaller and more manageable pieces, the communication leader can ease the group's work and help group members better focus and analyze task-related information (Albright and Post, 1993). Also, the communication leader enables group members to perform a deeper analysis of the problem, resulting in a better task understanding without inhibiting the creative exploration of issues (Gibb, 1983). Facilitating inter-organizational EC collaboration, in this way, could reduce level of uncertainty amongst group members. Therefore, group members are encouraged to get involved in collaboration process.

According to our experimental findings, we found that students who perceived a higher level of communication leadership in their groups found the collaborative project to be most interesting. They also found more challenge in the project. In addition, they perceived more learning about global trade and electronic commerce, and viewed the project of cross-cultural corporation planning project to be more realistic than other students (see Turban et al. 2000). In other words, they perceived the inter-organization collaboration significantly more positively than students who perceived low level of communication leadership. Based on the above experimental findings and the mentioned effects of communication leadership on the inter-organizational EC collaboration, a third hypothesis is formed:

H3: Groups with higher perception of communication leadership will perceive lower level of inter-cultural communication apprehension, leading to higher level of inter-organizational EC collaboration.

4. Testing the hypotheses

In order to test these hypotheses we plan to conduct a collaborative project between City University of Hong Kong, Abo Akademi University in Finland, SUNY at Binghamton and possibly other universities during Fall semester 2000.

In this project we will involve the students in two EC-related tasks: Acting as consultants to a company in another country that is interested in selling online in foreign countries, and evaluating the web sites of such companies for suitability of such initiative. The students will work in groups composed of participants from the different countries. Each group will be assigned to one real world company. The students in the home country will play the role of company's headquarters, while students in the other countries will act as consultants.

Two instruments will be used to measure the results of the collaboration:

1. A cultural climate questionnaire which will be based on Hofstede's study and will concentrate on measuring power distance, uncertainty avoidance and work centrality of participants in the different countries.

2. A collaboration evaluation questionnaire which will measure the perceived success of the inter-organizational EC collaboration, the perceived value of the supporting technologies, the communication leadership, and communication apprehension.

The questionnaires will be designed to test the specific hypotheses cited in this paper (and possibly others). Preliminary results will be reported at HICSS 2001.

5. Conclusion

This paper examined the nature of inter-cultural communication apprehension in inter-organizational EC collaboration and proposed a research model for the study of this issue. The proposed research model presents the major relationships between inter-cultural communication apprehension and three factors: cultural climate, technological environment and communication leadership that may have substantial influences on the effectiveness of inter-organizational collaboration in electronic commerce.

The hypotheses arising from the research model may provide directions for further empirical testing, improve our understanding of collaboration in electronic commerce, and add to the existing literature of EC collaboration. With proper operationalisation, the hypotheses presented may be readily tested. The results of future experimental study will inform the management of EC on how they can manipulate inter-cultural communication apprehension and hence improve the global marketplace where cooperation and understanding are essential for effective collaboration. The result also will assist faculty to design collaborative global EC projects.

The amount of EC research is increasing very rapidly. Being pioneers in conducting this stream of research, we hope that our experience will benefit other researchers.

References

Alavi M., Yoo Y., and Vogel D. (1997). Using Information Technology to Add Value to Management Education, *Academy of Management Journal*, 40(6), pp. 1310-1333.

Albright R.C., and Post P.E. (1993). The Challenges of Electronic Learning, *Training & Development*, 47(8), pp. 27-29.

Bavelas A. (1950). Communication Patterns in Task-Oriented Groups, *Journal of the Acoustical Society of America*, 22, pp. 725-730.

Berger, C. R., and Calabrese, R. (1975). Some Explorations in Initial Interaction and Beyond, *Human Communication Research*, 1, pp. 99-112.

Bostrom R., Anson R., and Clawson V.K. (1993). Group Facilitation and Group Support System. In L. Jessup and J.S. Valacich (Eds.), *Group Support Systems*, New York: Macmillan, pp. 146-168.

Carlson P.J., and Davis G.B., (1998). An Investigation of Media Selection Among Directors and Managers: From "Self" to "Other" Orientation, *MIS Quarterly*, 22(3), pp. 335-362.

Chapanis A., Ochsman R.B., Parrish R.N., and Weeks G.D. (1972). Studies in Interactive Communication: I. The Effects of Four Communication Modes on the Behavior of Teams During Cooperative Problem-Solving, *Human Factors*, 14(6), pp. 487-509.

Chidambaram L. and Jones B. (1993). Impact of Communication Medium and Computer Support on Group Perceptions and Performance: A Comparison of Face-to-Face and Dispersed Meetings, *MIS Quarterly*, 17(4), 465-491.

Chidambaram L., and Bostrom R.P. (1993). Evolution of Group Performance Over Time: A Repeated Measures Study of GDSS Effects, *Journal of Organizational Computing*, 3(4), pp. 443-469.

Cole M., and O'Keefe R.M. (2000). Conceptualization and Dynamics of Globalization and Culture in Electronic Commerce, *International Journal of Global Information Systems Management*, Jan, pp. 4-17.

Daft R.L., and Lengel R.H., (1986). Organizational Information Requirements, Media Richness and Structural Design, *Management Science*, 32(5), pp. 554-571.

Daft R.L., Lengel R.H., and Trevino L.K. (1987). Message Equivocality, Media Selection and Manager Performance: Implications for Information Systems, *MIS Quarterly*, 11(3), pp. 355-366.

Diehl M., and Stroebe W. (1987). Productivity Loss in Brainstorming Groups: Toward the Solution of a Riddle, *Journal of Personality and Social Psychology*, 53(3), pp. 497-509.

Doyle M., and Straus D. (1976). *How to Make Meetings Work?* New York: Wyden.

Dube L., and Robey D. (1999). Software Stories: Three Cultural Perspectives on the Organizational Practices of Software

Development, *Accounting Management and Information Technologies*, 9, pp. 223-259.

Elenkov D.S. (1998). Can American Management Concepts Work in Russia? A Cross-Cultural Comparative Study, *California Management Review*, 40(4), pp. 133-156.

Gibb A.A. (1983). The Implications for the Trainer of Differences Between Large and Small Firms, *Journal of European industrial Training*, 7(5), pp. 11-13.

Griffith T.L., Fuller M.A., and Northcraft G.B. (1998). Facilitator Influence in Group Support Systems: Intended and Unintended Effects, *Information Systems Research*, 9(1), March, pp. 20-36.

Gudykunst W. B. (1988). Uncertainty and Anxiety. In Y.Y. Kim and W. B. Gudykunst (Eds.), *Theories of Intercultural Communication*, Newbury Park, CA: Sage, pp. 123-156.

Gudykunst W. B. (1995). Anxiety/Uncertainty Management (AUM) Theory. In R. Wiseman (Ed.), *Intercultural Communication Theory*, Thousands Oaks, CA: Sage, pp. 8-58.

Gudykunst W. B., and Kim Y. Y. (1997). *Communicating with Strangers: An Approach to Intercultural Communication*, New York: McGraw-Hill.

Hirokawa R.Y., and Gouran D.S. (1989). Facilitation of Group Communication: A Critique of Prior Research and an Agenda for Future Research. *Management Communication Quarterly*, 3(1) August, pp. 71-92.

Hofstede G. (1991). *Cultures and Organizations,* England: McGraw-Hill Book Company.

Hofstede G. (1994). Management Scientists are Human, *Management Science*, 40(1), pp. 4-13.

Hofstede G., Neuijen B., Ohayv D.D., and Sanders G. (1990). Measuring Organizational Cultures, *Administrative Sciences Quarterly*, 35, pp. 286-316.

Hunter D., Bailey A., and Taylor B. (1996). *The Facilitation of Groups*, Aldershot, Hants: Gower.

Jarvenpaa L., Knoll K., and Leidner D. (1998). Is Anybody Out There? Antecedents of Trust in Global Virtual Teams, *Journal of Management Information Systems*, 14(4), Spring , pp. 29-64.

Jarvenpaa S.L., and Leidner D.E. (1998). Communication and Trust in Global Virtual Teams, *Journal of Computer-Mediated Communication*, (Online - http://jcmc.mscc.huji.ac.il/vol3/issue4/jarvenpaa.html).

Kelly G.G., and Bostrom R.P. (1998). A Facilitator's General Model for Managing Socioemotional Issues in Group Support Systems Meeting Environments, *Journal of Management Information Systems*, 14(3), pp. 23-44.

Kepner C., and Tregoe B. (1981). *The New Rational Manager*, NJ: Princeton Research Press, Princeton.

Leavitt H.J. (1951). Some Effects of Certain Communication Patterns on Group Performance, *Journal of Abnormal and Social Psychology*, 46, pp. 38-50.

Massetti B., and Lobert-Jones B.M. (1997-98). The Internet as a Tool for Supporting International Teams in the Classroom, *Journal of Computer Information Systems*, Winter, pp. 68-75.

McCroskey J.C., and Richmond V.P. (1996). *Fundamentals of Human Communication: An Interpersonal Perspective*, Prospect Heights, IL: Waveland.

McGrath J.E. (1984). *Groups: Interaction and Performance*, New York: Prentice Hall.

McPherson J.H. (1967). *The People, the Problems, and the Problem-Solving Methods*, Midland, MI: Pendell.

Moore C.M. (1987). *Group Techniques for Idea Building*, Newbury Park, CA: Sage.

Neuliep J. W., and McCroskey J. C. (1997). The Development of Intercultural and Interethnic Communication Apprehension Scales. *Communication Research Reports*, 14, pp. 145-156.

Neuliep J.W., and Ryan D.J. (1998). The Influence of Intercultural Communication Apprehension and Socio-Communicative Orientation on Uncertainty Reduction During Initial Cross-Cultural Interaction, *Communication Quarterly,* 46(1), pp. 88-99.

Nunamaker J.F., Dennis A.R., Valacich J.S., Vogel D.R., and George J.F. (1991). Electronic Meeting Systems to Support Group Work, *Communications of the ACM*, 34(7), July, pp. 41-60.

Phillips L.D., and Phillips M.C. (1993). Facilitated Work Groups: Theory and Practice, *Journal of the Operational Research Society*, 44(6), pp. 533-549.

Rice R.E., and Associates (1984). *The New Media: Communication, Research and Technology*, Beverly Hills CA: Sage.

Schuman S.P. (1996). What to Look for in a Group Facilitator, *Quality Progress*, June, pp. 69-72.

Shaw M. (1981). *Group Dynamics: The Psychology of Small Group Behavior* (3rd ed.), New York: McGraw-Hill.

Terpstra V., and David K. (1985). *The Cultural Environment of International Business* (2nd ed.), Dallas: South-Western Publishing Company.

Trist E. (1983). Referent Organizations and the Development of Interorganizational Domains, *Human Relations*, 36, pp. 269-284.

Tung L.L., and Turban E. (1998). A Proposed Research Framework for Distributed Group Support Systems, *Decision Support Systems*, 23(2), pp. 175-188.

Turban E., Lee M., Walden P., and Westfall R. (2000). Global Electronic Commerce Collaborative Experiments, Work paper 1, City University of Hong Kong. *Submitted to International Journal of Information Management.*

Vogel D., Wagner C., and Ma L. (1999). Student-Direct Learning: Hong Kong Experiences, *Proceedings of the Thirty Third Annual Hawaii International Conference on System Sciences*, CD-ROM version.

Walden P., and Turban E. (2000 Forthcoming). Working Anywhere, Anytime and with Anyone, *Human Resources Management*.

Walden P., and Turban E. (1998). Implementing Global Electronic Commerce, *Proceedings of the Thirty Second Annual Hawaii International Conference on System Sciences*, CD-ROM version.

Westley F., and Vredencury H. (1997). Organizational Collaboration and the Preservation of Global Biodiversity, *Organization Science*, 8(4), pp. 381-403.