Business Negotiations On Web: Experiences At IIMB

By

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Introduction

Both policy makers and managers in developing countries are passing through new challenges in many a fields: labor management, international affairs, business relationships and environmental regulations. Government, Judiciary and public are learning new grounds in decisions related to environment, ecology and policy making (Zartman, 1994). Negotiation and bargaining are one of the most common forms of making decisions and resolving conflicts at every organizational level, between countries and small and large organizations and between individuals. It is well known to every culture but the negotiation processes significantly vary among cultures. The old colonialist tradition was that it was up to the nobles, and representatives of the rich and well educated to interact and negotiate (Mumford, 1996). This tradition was based on the naïve and short sided assumption that blue blooded and nears were more competent to negotiate and furthermore, it wrongly assumed that the North (or West) knew more or was superior in specific areas. The results of this tradition were also visible in negotiation, or rather, the assumptions that there is no need for any negotiations because one side knew what is good for the other. Second half of the 20th century clearly showed how naïve this approach was and how wrong were its underlying assumptions. It also showed that the past divisions are inadequate and the business, educational, and other links are now going across all directions and not from West to South and back.

Negotiation studies indicate some basic structural differences in developing and developed countries in the process, context and form of negotiation. (Stewart and Keown, 1989; Graham 1993; Druckman et al., 1976, Stone, 1989, Pechter, 1992). In a developing country there is often a less structured setting for resolving disputes (Ghauri 1988). Further, the negotiators seldom have a past bargaining relationship or a history that establishes channels of communication. Cultural implications impact attitudes towards contracts, value for formality, and status in human relations in both the developing than developed countries (Swierczek, 1990). Pechter (1992) having analyzed more than fifty real life negotiations amongst Western and developing countries, states that ethic of trust in most Asian countries is alloyed with an appreciation for shrewdness. While compromise is considered an appropriate outcome of negotiation in western world, it may often be considered defeat in Asian countries. These differences have a significant effect on designing programs that stress effective mediation, equip the negotiators the tools to appreciate the utility of compromise in some situations and development of systems that evaluate the decision alternatives without trespassing into the domain of self-values of negotiator. Often the existing organizational and institutional structures in a developing country may not support a negotiation effort. This may be due to differing attitudes towards contracts, and informal dispute settlement practices. For example, Chen (1995) observed that Japanese accepted change in contracts as natural and preferred informal means of settlement. Graham (1985, 1993), in his study of negotiation styles of business people in various countries, observed that Japanese offered more extreme initial offers, used the word 'no' less frequently, were silent longer and used aggressive tactics only in later stages of negotiation. Brazilians' behavior in the negotiation was characterized by more extreme first offers (even more extreme than Japanese), fewer promises and

commitments, more commands, and longer interactions than exhibited by Americans in their negotiations.

With international trade and manufacturing from developing countries witnessing an increase, managers and policy makers from developed countries interest in the negotiation systems and practices of these countries is on a dramatic raise. Studies have revealed that despite enormous increase in the requirement for decision making, most developing countries lack 1) some participants who are capable of translating the abstract goals into concrete bargaining proposals, and 2) systems for wide and efficient training of decision makers. To bargain effectively, one must not only have the ability to articulate interests and bargaining positions, but also the skill to interpret and transmit bargaining communications to other negotiators. However, this seems to be the critical missing link for many a developing countries. Feliciano (1990) states that developing countries have no long history of negotiations with other countries or with foreign corporations and this situation did not change significantly till date. They generally lack cadres of experienced negotiators in their foreign offices, in their ministries of finance and of trade and industry, in their boards of investment, in their agencies charged with coordination and implementation of development work, and in their private sector. Other factors like language, customs and time zones act as barriers to effective communication between developing and developed world (Xing 1995; Geindsted 1994).

Training in negotiations at universities level was first introduced in U.S and later spread to other parts of the world. Teaching and training negotiations to manager, especially intercultural, is fraught with many a problems: technological, managerial and pedagogical. Enabling people from different geographical and time zones without imposing any restrictions on their participation, schedules has been technologically difficult till few years (Adler and Graham 1989; Roth et al., 1991; Carnevale 1995). Ensuring availability of culturally different groups that meet cross-cultural validity (in terms of respondent's attribution error, rationalization, and other biases) without encountering translation and back-translation issues is a difficult task (Triandis et.al., 1972). On the pedagogical front, the traditional tools employed for teaching negotiations: cases, experiments and simulations, have not explicated the conceptions of negotiations by which they are construed, and their depth of analysis has also been limited. Therefore, creating and sustaining a system that allows for efficient transfer of communication and negotiation amongst developed and developing countries is imperative. Against this background the rest of the paper presents authors experience of developing and organizing such a system for managerial training and teaching in India. The next section presents aspects of negotiation in developing countries such as what makes negotiation difficult to manage, role of institutional mechanisms, etc. A subsequent section describes how new technologies, World Wide Web, help the teachers and trainers transgress several restrictions on conducting international negotiation. The next section describes INSPIRE, a Web based tool designed that aids international negotiation teaching and training. Authors experience of using INSPIRE at Indian Institute of Management Bangalore, India for post-graduate and executive training and the learning is presented in the last section.

2. Negotiation Teaching and Training

Lewicki in 1973 offered the first course on managerial negotiation at Dartmouth College. In the early 1980s, many business schools started to offer courses on negotiations. Most courses employed experiential learning methodology (Kolb 1974, Lewicki 1986). The pedagogues used in experiential learning includes: actual concrete experience with a phenomenon, reflecting upon that phenomenon to sort out the experience and identify key elements, identify generalizations and actively experiment the new behavior in the future. Most negotiation courses implicitly (or explicitly) follow these steps by incorporating theory and practice. The teaching method is largely used to reinforce decision-analytic aspects of negotiations. Case studies describing some elements of negotiations (for example, framing, power strategies, and negotiators' personalities) are often used in teaching and training. The study of case studies permits one to consider factors that influence the chances that a dispute may be resolved through negotiation. Analyzing the events that occurred in specific instances of negotiation provides a factual grounding for discussion. This anchors discourse to a range that offers practical value and insight. Furthermore, detailed case studies also enable one to see the importance of context for explaining specific events.

There are few examples of courses where a tape or video recording of naturally occurring international business negotiation and participant observation methods are employed. Video taping, while intriguing, has been associated so far with only 'exploratory' qualitative analysis such as body postures, gestures, and other possible pedagogical sources such as audio taping and transcripts of the proceedings have not been tapped. Very limited courses offer negotiation experiment as a learning tool (e.g. Winham and Bovis 1979). Experiments offering greatest opportunity for direct observation and rigorous analysis of the dynamic aspects of negotiation are difficult to manage and conduct for a large group of participants. Moreover, most courses have experiments which are some 'paper-and pencil' tests involving brief and well contained tasks (Francis, 1991). For practical reasons, the experiments did not involve negotiations they extend beyond one or two hours. Another characteristic of the experiment is the subjects' knowledge of each other and their close proximity. Further, the subjects typically were from the same culture and negotiation did not involve any cross-cultural communication. Cultural studies were done on the basis of negotiations conducted in culture X with those conducted in culture Y. Thus, very little can be said about international and cross-cultural negotiations. Experimental studies make it possible to analyze, assess and possibly measure specific mechanisms and methods used in the process, and attitudes and perceptions of the subjects. This is achieved at a cost of a highly stylized and unrealistic negotiation process and its setting. Another difference between the traditional experiments and other studies is in the importance of negotiations. Experiments typically deal with fairly common negotiations, not critical to a country, organization or an individual. Other studies often focus on negotiations involving politicians and experts. Negotiations involve communication. Yet most studies concentrate on reported perceptions of negotiation processes and outcomes in questionnaires and worksheets and ignore the vital role of communication (e.g., Faure, 1993). While these pedagogues are extremely useful to ingrain the fundamentals of negotiations, these fail to build up the

excitement and complexity of real-life negotiations. The major limitations of these methods are:

1. Low control and focus: Often the participants find they have little control over the negotiation process and focus of the negotiation may be determined by the supervisors. Pruitt (1986) based on his analysis of six negotiation courses in U.S. universities observed that most cases fail to anchor the actors and locus of control seem to rest with the instructor. At times, instructor may intervene genuinely to complete the game so as to retain the interest or cover the various aspects of phenomenon. Participants thus learn about negotiations what the instructor could complete or wanted to focus on. Another dimension is the difficulty and complexity of conducting international negotiation for teaching.

2. No flexibility in scheduling training sessions: Given that the negotiation games are simulated in a classroom and restrictions of semester, the instructors find lack of flexibility in conducting these games (simulations) affecting the learning process. This problem is acute in International Business courses, where the instructors may need to arrange different groups in different countries. The time zones are not the only problems, but organizing the whole process of negotiations.

3. Low level of involvement: Several course suffering from above mentioned problems result in low involvement of the participants. The low involvement may be because: 1) the game does not reflect the real-life complexities, 2) focus and the process of negotiation is highly regulated, and 3) lack of control at the participant end (Thompson 1991).

4. Simulate narrow range of negotiations: Most courses use simulation as a vehicle to teach and study negotiation (Adler and Graham 1989; Bazerman and Neale 1991). Negotiation simulation allow for focused analysis and verification of behaviors and interactions. These are typically conducted in uni-cultural environments and restrict the negotiation process. Real life negotiation may involve sequential, parallel or mixed mode of information transfer and flexible system independent interfaces. Another issue related to customizing the simulation exercises is the cost of setting up, administration, analysis and feedback is high and the process time consuming. Even when the course instructors are genuinely interested to offer more than one role and one case situations, they are constrained to do so. Thus participants are exposed to dynamics of a particular setting and if the case is too specialized, they miss out other negotiation issues.

While these issues may be common across business schools, institutions in developing countries suffer from other problems. Most of the business schools offer their courses in native language and may suffer due to lack of training materials or poorly translated notes. While obtaining teaching material is not difficult, often the material may not reflect the dominant practices or culture of the country. This not only affects the quality of course delivery, but also participation of the registrants. Due to limited number of trained and qualified negotiators in these countries, development of appropriate cases has also been on low scale. The result is a demand for creating and sustaining a system that

allows for effective transfer of communication and negotiation amongst the developing and developed countries. New technologies such as World Wide Web offer exciting platforms for teaching and training of international negotiation. The following section describes the technological advantages offered by Web based systems followed by INSPIRE, a Web based system that allows unconstrained inter-cultural negotiations.

3. Web: Technological solution for Negotiation teaching and training

Technology is a critical resource that can eliminate some of the problems related to teaching and training of communication and negotiation in developing countries. Some of the technologies being system independent (in terms of operations and maintenance) allow users from remote parts of the world to communicate and to use previously inaccessible resources. Widespread use of networked computer systems, especially systems based upon the Internet growing at a phenomenon place indicates the information barrier between developing and developed will be easily overcome.

The principle feature of World Wide Web is that it allows people from different locations and time zones to communicate and to use previously inaccessible computational resources. While Web's greatest use currently is as a powerful source and means for dissemination of information, it is increasingly being used as a means for remote execution and control of complete software systems, thus adding another dimension to the value it delivers. In education, its ability to access and run remote programs and databases allows users to extend classroom and laboratory boundaries across geographical and time zones. It thus allows instructors and students to retrieve and use resources from remote sites. This flexibility would nullify the effect of inequality between developing and developed country managers, policy makers and citizens by enhancing their ability to communicate, negotiate and participate in business and other activities.

These technologies allow rich communication amongst actors in negotiation, by virtue of computation-intensive techniques and visualization of data. The users could review the negotiation process and its dynamics. Language and other barriers disappear since these technologies allow extreme customization. User specific front ends can be built which may be connected to the core of the system, thus increasing participation and retain functionality. Cost of duplicating the solutions is another major factor that determines whether a particular technological solution can reach a larger population. Web browsers provide a tremendous degree of portability and thus enhance the access of the users in remote countries to training and real-life negotiation with minimal computing resources. They are accessible for everyone; lay people and experts alike, and provide them enabling tools and systems to interact more directly with persons from different cultures. Thus immensely reducing the effect of distances.

The flexibility of the Web based systems enables customization of the case material to reflect the regional specificity. It is also easier to bring about disciplines based orientation in teaching and training sessions. The systems can be tailored to reflect say behavioral,

decision theoretic or any other focus to suit the teaching and training needs. Web pages are very good at representing and presenting context. So independent Web pages may be implemented by a dispatching system that determines which page to present based on a given situation. Another major advantage of Web pages is that they can be used as a generic user interface in the sense they can be reused for arbitrary negotiation cases. This technological characteristic helps in better representation and framing of negotiation cases without loosing the benefit of customization. Finally, these technologies don the role of equalizers in the sense irrespective of the place, language and environmental conditions, people could hook up and negotiate.

4. The INSPIRE System

INSPIRE is the first web-based system designed to conduct negotiations. It is a support system based on analytical models rooted in decision and negotiation analysis (Kersten 1985; Kesrten and Szapiro 1986; Rangaswamy and Shell 1994). Developed in the context of a cross-cultural study of decision making and negotiation, the system has been primarily used to conduct and study negotiation via the World Wide Web as well as teaching of information systems, management science, international management and English as a second language. The traditional view of a negotiation (or group) support system is that of a desktop application. Here each user has one copy of the software on their personal computer, which communicates with the other users' copies over a network (typically a LAN), usually in synchronous mode (i.e., with both parties simultaneously logged on). INSPIRE's, conceptualized as a negotiation support system, has been translated into its implementation structure as a Web application. The system uses the client/server model of distributed systems to partition the main components. One other factor that significantly influenced the design is the fact that the negotiations supported are asynchronous: since the two parties negotiating with each other typically reside in far away countries with different time zones, it is rare for both sides to be simultaneously logged on. Therefore, INSPIRE is designed to interact independently with each user, saving the state resulting from each user's actions in a form that can be retrieved when the counterpart logs on some time later.

INSPIRE involves four different case situations. One involving international purchasing decision, other one on technology purchasing decision and two others related to development. At IIM Bangalore, we used the case related to technology purchasing as it was more relevant to the course offered. This case involves Intelligent Technologies, Inc. (ITI), a firm operating in robots and AGV markets planning to enter sensors and Pegard Tools Inc.(PTL), a leading player in industrial sensors. In writing the case an effort has been made to make it as much as possible ***'culture neutral'***. Furthermore, the case was to describe a technology negotiation situation with which users from almost any country are familiar without any additional explanation. As the users' language proficiency might be low the case is fairly simple and well structured. Its case description fits one and a half pages. Intelligent technologies, Inc (ITI) is a small firm dedicated to manufacturing transmissions for robots and automatic Guided vehicles (AGV). In 1996, four years after its founding, the company has a modest presence in International markets (2% market points). In its endeavor to tap new products/services shall enter it has identified

integrating into sensors market an important element of sustaining its competitive advantage. ITI lacks technical resources in several of key technologies and it would be expensive (futile) to reinvent the wheel. After careful evaluation of manufacturers, you have identified Pegard Tools Inc. (PTI) a firm in Chicago, as a possible technology donor. There are *four issues* that both sides have to discuss and they are the price of the technology, terms of payments, collaboration content and technology restriction. Collaboration content refers to the mode of technical inputs that are transferred in the collaboration. Technology restrictions are legal clauses or regulations that restrict or prevent the buyer from a) reselling the technology or exporting to other country, b) manufacture products similar to those under license, c) make process changes or setting up of a new plant based on the learning. If a), b) and c) are included in the technology agreements then it is a completely restrictive package, while b) alone refers to product restrictions, and c) alone refers to process restrictions.

Specifically, the terms of reference are as follows.

Price of technology

$ 10, 240, 000, $ 9, 220, 000, $ 8, 710, 000 and $ 8, 200, 000

Terms of payment

50% down payment, rest in 2 installments within 1 year of technology transfer, 25% down payment, 2 installments of 50 % and 25% within 6 months, 75% down payment, 25% at the end of 1 year of technology transfer, and 100% down payment

Collaboration Content

Blue prints only with 15% of total price for any consultancy later, Blue prints + process plans with 10% as consultancy fee, Blue prints + product-process route sheets @ 20% consultancy fees, and Financial collaboration with 50% equity holding by the donor

Technology restrictions

Complete restrictions on drawings and product, Selective restrictions on product and Selective restrictions on process

The negotiators were not given the issue priorities, thus they had to decide if, say, price was more important than technology restriction, and the specific trade-off values between issues. A session on international technology negotiation prefaces this case and hence no specific directionality of importance amongst the issues is suggested in the case. Both parties are presented with their side of the case, told that they are to represent ITI and PTI respectively, and that their companies are interested in achieving a compromise. However, they are also informed that there are other technology suppliers and buyers so that a breakdown in negotiations is possible if they cannot reach a good deal. INSPIRE represents the value of negotiation-related constructs---issues, options, and offers (packages)---to each negotiator by means of utility functions. This representation forms the basis of a scoring scheme that enables negotiators to make easy comparisons between

offers and counteroffers and judge the significance of a concession. The technique currently implemented for the construction of utility functions is based on conjoint analysis, in which the utility of a given package is determined from the user's preference orderings over a set of factorially designed packages. A hybrid (compositional as well as decompositional) approach is used and it comprises three steps:

1. The user evaluates the relative importance of the issues to be negotiated. The rating assigned to each issue is viewed as a component of the total utility of a package. The utility component of each issue is assumed to be independent of the other issues, i.e., any possible interactions are assumed to be insignificant. Therefore the utility components are simply added together to form the total utility function and this is called composition.

2. The user evaluates the relative importance of each issue's options. The rating of each option constitutes the utility component of an issue when that particular option is the one that's present in a package.

3. The user makes a comparative evaluation of several complete packages selected by INSPIRE, viewing each package as a whole. This is the decompositional step. The total utility of a package is decomposed into constituent option utilities using an additive model:

   $$\text{Rating}(P) = constant + \sum_{ij} u_{ij} x_{ij} + error$$

   where Rating(P) is the total utility of a package P, u_{ij} is the utility associated with issue i and option j, and x_{ij} is a binary variable indicating whether the given option is present in the package.

INSPIRE uses the information obtained in the issue and option ratings steps to select the set of orthogonal packages presented to the user for the package rating step. Given the ratings for these packages, the weights u_{ij} are computed so as to minimize the error terms using linear regression. By default, issues are assumed to have "discrete" options, i.e., only a small number of explicitly listed options are considered to be meaningful as outcomes of the issue. These are also called salient options. However, some issues can also be "continuous" in the sense that any intermediate value can be meaningful. In such cases, the utility function within an issue is assumed to be piece-wise linear, i.e., linear interpolation (or extrapolation) is used to compute the utility of intermediate points between salient options.

4.1 Evaluating offers and compromises

Evaluating the utility function with respect to the combination of options that comprise an offer provides a numerical estimate of the goodness of the offer. INSPIRE uses this in several ways: it generates graphics plotting the score versus time, thus enabling the negotiators to understand at a glance the history of concessions that have occurred; and it uses the scores to suggest possible improvements on any compromise that is reached. In

INSPIRE a negotiator's preference information is never revealed to his or her counterpart, or anyone else, as in real negotiations. This implies that evaluation of a compromise that has been accepted by both parties must be done independently for each side, using the corresponding utility function; interpersonal comparisons of utility are never performed. A compromise is considered Pareto-optimal or efficient if it cannot be "improved," i.e., if there does not exist any other package with a higher score for one party and an equal or higher score for the other party - measured with their respective utility functions. Whenever a compromise is reached, INSPIRE determines whether it is Pareto-optimal. If it is, the negotiation ends; else, INSPIRE computes the set of all packages that dominate the compromise, and presents five that span the spectrum of scores they represent. The user is given the choice to select one of them or construct a new offer altogether, or terminate the negotiation and stay with the inefficient compromise that has been achieved.

4.2 Data, analysis and exploration tools

The INSPIRE system provides two sources of data, which together describe the entire negotiation as well as the negotiators themselves:

1. two questionnaires that are filled on-line by each negotiator, and
2. the complete computer records of the negotiation.

The first questionnaire is filled out during the early preparation phase of negotiation (the 'pre-negotiation questionnaire'), and the other after the negotiation is terminated ('post-negotiation questionnaire'). In brief, these questionnaires try to capture background information about the negotiators that would otherwise be unavailable, given that they are typically unknown people coming in over the Internet. They also directly elicit perceptions and judgmental information about each other and the negotiation environment.

The pre-negotiation questionnaire contains 16 questions abut the user's background, including age, countries of birth and residence, self-evaluation of negotiation experience, level of Internet use, prior knowledge (if any) about the counterpart, and expectations about the nature of the forthcoming negotiation and the compromise that will be reached. The user is typically required to specify the latter judgments on a scale of five levels whose extremes are labeled, e.g., from 'Very friendly' to 'Very hostile.' Two additional questions are about the difficulty of INSPIRE's preference elicitation mechanisms which are later used to provide users with the subjective values of alternatives. The system does not allow users to proceed to the second phase of negotiation (exchange of offers) until they fill in this questionnaire.

The post-negotiation questionnaire contains 40 questions, including a few open-ended requests for comments about the system's features and potential. The questions are about the system and its features (17 questions), the agreement reached (2), the process (4), the negotiator and the opponent (17). The questions about negotiator and the opponent are grouped together, because typically the negotiator does not know her/his opponent. Thus,

almost any question about the opponent in fact describes the negotiator's perception and not reality. Examples of such questions are: whether the negotiator found the opponent informative, persuasive, honest, etc. (Adler and Graham, 1989).

INSPIRE's history recording mechanism logs each negotiator's activities in detail and provides the complete computer records of the negotiation. This includes information about the negotiator's use of messaging, visualization, and analytical tools. The negotiation database contains all the objects created and exchanged during the negotiation, including the offers and messages composed, along with time-stamps .

Much of this computation has been automated through another INSPIRE component called INtoSPSS; the name is an artifact of its original purpose, to massage INSPIRE data into a form suitable for input to the SPSS statistical analysis package. This module shares the bulk of its code with the rest of the INSPIRE engine---and therefore has access to the complete data---but differs in implementation in one significant way: it has been designed to run off-line, not on the Web. Further, its data structures have been designed to enable easy insertion and coding of new derived measures; typically within 3 to 8 lines of C++ each. In its default mode, the program currently presents all the data in a standard tabular form that can be fed directly into SPSS. Other modes are currently available to provide an output format suitable for S-Plus, and to print out the unstructured answers to open-ended questions from the post-questionnaire. The latter is particularly useful for research queries such as "summarize all user comments about system features that were not found useful."

4.4 Offers and messages

INSPIRE negotiation are conducted through the exchange of offers and messages which are two separate forms. They can be submitted together or separately. The negotiation ends with an agreement, i.e., when both parties accept an offer. Using the systems' menu normally does this acceptance. However, both the acceptance and the whole exchange may be conducted entirely with messages. The users may inform about issues and options in messages and do not send any offer. For the data analysis at present we are not able to identify negotiation which end with a message only. The agreement is only one outcome of the negotiation. Other outcomes include satisfaction with the process, the agreement and with oneself. It is also a better understanding of the opponent. We consider the issue of satisfaction using negotiators' satisfaction with the agreement, evaluation of their own performance in the negotiation and the difference between the expectations they had before and after negotiation.

First, scores play only internal role; each negotiator defines her/his preferences that are on the scale 0-100. If the parties have fully opposing interests and their preferences are exactly reverse, then in the agreement, the sum of the joint scores is 100. However, if the interests and preferences are overlapping then the joint score may significantly exceed 100. At the extreme, if the interests are identical the total score is 200. Second, the users do not provide the expected and achieved scores. Before they enter the negotiation they are asked to specify the offer which they believe will be the compromise. For this offer

the system calculates the score. Similarly it is the system which calculates the score for the achieved compromise. Note also that the expected and achieved and scores are not provided by the users. Instead, they are calculated on the basis of their individual utilities and offers. Each user, before entering negotiation is asked what package (offer) she/he thinks will be achieved and this package is used to calculate the expected score. All the communication between the INSPIRE negotiators is conducted through the system and the user's identity, including their email address, is not revealed. Users are using names (aliases) they choose before beginning negotiations. However, users, in their messages, may reveal their name, country, email address etc. In fact they may completely bypass the system if they wish.

5. INSPIRE at the Indian Institute of Management Bangalore

Two batches of post-graduate students and three executive program participants were exposed to INSPIRE. They had registered for technology management and International Management Courses, wherein either technology purchasing or managing across boundaries were the issues. Typically at IIMB, the contact hours for a three credit course are three hours a week in 5 week semester period and the executive programs were of two sessions a week of 3 week lengths. Postgraduate students selected through a rigorous test and interview would have been already exposed to basic courses in management such as decision theory, communication, organizational behavior, production and marketing. The executive development program participants are nominated from their respective organizations for training at IIMB and these are senior/middle managers with an average work experience of 8 years.

The pedagogy of the course adopted before introduction of INSPIRE used to be largely lecture based, coupled with two cases and a game. While the game and cases were useful drivers for imparting the fundamentals of negotiation, often the students did not benefit from hands-on negotiations. The usual restrictions of the semester and class timings limited the role play and experiential learning. In their course feed back the students mentioned to have a more dynamics negotiation tool for practice. One of the PGP 96-97 stated "international technology negotiation input (game or case) should expose us to the real motives of the donors, the vulnerability of governments and recipient. A more dynamic representation wherein we could don the role of choice would enhance our learning".

Today the course starts with basic introduction to negotiation and international technology negotiation. The participants are exposed to case such as Metro Corporation (Contractor, 1995) and Brother Surgicals (Madanmohan 1997) to facilitate negotiation tactics, issue related to licensing in international technology negotiation, effect of sunk costs and others. At the end of the class, a brief presentation about InterNeg and INSPIRE is made. The participants are also provided a list of Web sites offering information related to negotiations. Each of the participant is sent through e-mail the value of the InterNeg and INSPIRE project and informed in advance that their performance score shall not be used for grading purposes. The participants are told to

provide a pseudo name if they find the prospect of playing INSPIRE interesting. Once the list is obtained a live dummy demonstration of INSPIRE is made, where in queries related to rules of the game, how to log in, communication rules and objectives of the INSPIRE are explained. Usually this session lasts for an hour and half. The participants are encouraged at the end of the session to log in and the instructor is available for any difficulties.

The negotiation problem in INSPIRE has many cases. Based on the course offered students are shown dummy presentation. All the users posses a basic knowledge of English and are trained to use Netscape. For some of the executives with no computer exposure, a one-hour hands-on tutorial about Netscape and INSPIRE was given and they were guided during their first session with INSPIRE. They had no difficulties in using INSPIRE for subsequent negotiation. Every alternate day the registered participants are contacted to know if there is any snag or difficulties. The participants are told to be free to transcribe the negotiations in their individual styles and are requested to make an entry in the records at the computer rooms. These record is to evaluate the average time they take with each re-negotiation, the problems they face and suggestions if any. The INSPIRE deadlines (when the system would automatically closes of negotiation) is informed to the students and they are told they may consider this as a real life characteristics rather than a constraint. Typical negotiations are conducted over 2-3 weeks. On completion of the INSPIRE negotiation, the results of a couple of negotiation are discussed at length and strategies that could enhance their performance is offered only on request.

5.1 Experiences of the users

What did thirty three users who used ISPIRE to negotiate with the counterparts across the globe feel about the experience?. Descriptive data of 33 Indians with an average negotiation experience of 2.2 years is shown in Table 1. Data in Table 1 shows that negotiators access and use of Web is low, but expect a significant increase in access to Web. For a significant majority of the participants the INSPIRE is the first DSS/NSS that they have used. Most participants exceeded their own expectations and achieved almost all they could get. This implies either they have preference structures very similar to their opponents or that their opponents gave in significantly, or both.

The correlation amongst the variables presented in Table 2 offer additional insights into the negotiation process. Significant positive correlation between agreement satisfying and met expectations, and agreement satisfying and own performance indicate most Indian negotiators achieved what they aimed for. It may indicate their strong competitive attitude, ability to achieve met objectives and/or willingness to cooperate. The significant negative correlation between agreement satisfying and score on actual agreement indicates that scores obtained reflect the benefits of negotiation strategy.

Table 3 shows their utility of INSPIRE for real-life negotiations. Of the thirty-three Indians who negotiated using INSPIRE only fifteen filled in the Post-negotiation questionnaire. As seen from the Table, all fifteen of the users found INSPIRE useful for practice and preparation in real-life negotiation. What is striking from Table 3 is that

while Indians have low experience with, and usage of, Internet , their ability to achieve expected compromises or surpass themselves on expectations suggests that the INSPIRE system and Web-based negotiations do not introduce a significant burden or add complexity into the already complex negotiation process. The open ended feed-back from the users provides additional insights into utility of the system. One of the participant said "Find it extremely useful for two purposes. First as a training tool. Second as a platform for small and medium industries managers from India who can negotiate their orders through the system". Another participant commented "INSPIRE is a Great learning vehicle".

5.2 Teacher's experiences

INSPIRE being an Internet based tool required different preparation, handling and conduct of negotiation. Unlike the case oriented teaching, teaching negotiation through INSPIRE required first ascertaining the level of Internet expertise of the users. Second convincing them these medium of instruction is as valuables as the other modes they are used to be. Hence, the in the initial demonstration faculty supervisor has to spend lot of time ensuring the participants get to know the basics of using Web systems. To establish the utility of these tools, a live demo addressing various issues that may be resultant at different levels was required. Often, parallel presentation of systems were useful in clearing the steps at a reasonable speed so as to retain the interest of the participants. For executive education programs this aspect is a crucial one

Once the participants are excited about INSPIRE, course instructors have to plan for how the negotiation process would be managed. The problem is more acute in an executive development program of short duration. The participants need to be reminded constantly about the dead-line and asked to report any problems they have with the system at earliest. Fortunately, once they are on to INSPIRE there is very little intervention required from the instructors. After completion of negotiations, most of the participants would like to compare their analysis. Summing of experience can be done in many ways. Instructors commenting on the process or the participant uncovering the process himself with or with out some external inputs or class-room discussions of typical negotiations. By far the second one has been more useful for executive development programs, while post-graduate students prefer classroom discussions. The instructors role here is more to reflect the various scores, probe why some scores reflect compromise than cave-in, etc.

Conclusions

This paper presents the results of an ongoing study. Therefore, it is more oriented on data and experience sharing than verification and confirmation of the hypothesis. An important finding of this study is a general and high acceptance of Web based tools for negotiations. Very high scores obtained by Indians, who as a group had least exposure and usage of Web, indicates that the system and Web-based negotiations do not introduce a significant burden or add complexity to the negotiation process.

Table 1: User profile and satisfaction

Current use of Internet	3.8 (1.4)
Used DSS/NDSS previously	19%
Expect Increased Web access	100%
Satisfaction with agreement	3.1 2.4 (1.3)
Satisfaction with own performance	3.8 3.1 (1.4)
Met expectations	3.7 2.8 (1.6)
Score achieved	91 (10)
Score Expected	82 (22)

Table 2 The correlation between the variables

	Nexp	Agrsat	MetE	Perf	Escore	Score
Nexp	1	0.38	0.39	0.3	-0.34	-0.35
Agrsat	0.38	1	0.73	0.65	-0.06	-0.80
MetE	0.39	0.73	1	0.53	0.03	-0.57
Perf	0.31	0.65	0.53	1	-0.24	-0.51
Escore	-0.34	-0.06	0.03	-0.24	1	0.49
Score	-0.35	-0.80	-0.57	-0.51	0.49	1

Nexp – negotiation experience, Agrsat – whether agreement was satisfying, MetE- met expectaions, Perf – whether they felt they performed better, Escore – score on expected agreement, and Score – score on actual agreement.

** Coefficient > 0.52 signficant at p=0.01

Table 3 Utility of INSPIRE for real-life negotiation

Use of ISPIRE for real-life negotiation	40 %
For practice	70%
For preparation	73%

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