Enhancing Negotiators' Performance with Computer Support for Pre-Negotiation Preparation and Negotiation:
An Experimental Investigation in an East Asian Context[1]

John Lim, National University of Singapore, Singapore

Yin Ping Yang, National University of Singapore, Singapore

ABSTRACT

Business negotiations, as a ubiquitous phenomenon in international marketplaces, are becoming more complex and prevalent as a result of globalization of today's world economy. This has made the possibility of computer support very appealing. Whereas past studies of negotiation support systems (NSS) have examined the potential benefits of supporting negotiations, computer support for pre-negotiation activities has been largely ignored in so far as empirical work is concerned. The current article addresses this gap by categorizing negotiation activities into the pre-negotiation phase and the negotiation phase, and reports on an experimental study of the impact of NSS on the different phases of negotiation. Results show that both pre-negotiation and negotiation support improved gains in outcome with increased time in reaching agreement. In addition, pre-negotiation support led to more equal outcomes for negotiating dyads. The findings show the usefulness of NSS in enhancing the quality of differing stages of negotiation. Further, it is to note that this article recognizes the important role of culture in the negotiation setting, and discusses its pertinence with respect to the context of the current study. The corresponding implications and conclusions are highlighted.

Keywords: bargaining; collaborative technology; decision support; experiment; group decision making; national culture; negotiation support systems; pre-negotiation

INTRODUCTION

Negotiations occur widely at the individual, organizational, and international levels, as well as in a wide variety of political, economic, and social settings. They offer a constructive alternative to other means of resolving conflicts, such as violence or avoidance (Anson & Jelassi, 1990). However, negotiations are often

not as simple and rational as they could be. In fact, negotiations are complex, ill-structured, and evolving tasks, which require sophisticated decision support (Bui, 1992). Moreover, human negotiators may be susceptible to "stumbling blocks," which are certain cognitive biases and social emotional aspects of the negotiation process that prevent negotiators from achieving high joint outcomes (Foroughi & Jelassi, 1990). Examples of the stumbling blocks include the cognitive difficulty of determining optimal solutions, negative framing of the negotiation, ineffective communication, and so on.

These stumbling blocks to successful negotiations, coupled with the increasing complexity of the issues to be resolved, have led to the concept of negotiation support systems (NSS), a special class of group support systems (GSS). NSS are designed to assist negotiating parties in reaching mutually satisfactory decisions by supporting information analysis and communication protocols. Research into this area has borne encouraging reviews (Rangaswamy & Starke, 2000) of how NSS can positively bring about higher joint outcomes and satisfaction for the negotiating parties.

However, most NSS research thus far has dwelled on the impact of NSS on negotiation per se; none has broached on the effect of NSS support on the various stages of negotiation. Specifically, the important stage of pre-negotiation has been largely ignored. In many endeavors, planning is the key element in success. One challenge faced by business negotiations (e.g., buyer-seller, labor-management, international business merger) is to jointly identify and set ranges on critical issues to be negotiated prior to the actual negotiation. The preparatory phase is lengthier for international transactions than for domestic ones due to the difficulty in gathering all necessary preliminary information (Cellich & Jain, 2004). In the existing NSS literature, tasks employed in many laboratory studies (e.g., Delaney, Foroughi, & Perkins, 1997; Foroughi, Perkins, & Jelassi, 1995; Goh, Teo, Wu, & Wei, 2000; Jones, 1998; Lim & Yang, 2004) are largely structured in the sense that issues and utilities scores are pre-assigned

to negotiating parties with little pre-negotiation preparation; as such, research findings could be rather limited vis-à-vis the complex nature of real-world negotiations. Furthermore, like most business and management literature, NSS empirical research tends to be dominated by a North American perspective, while actual practice continually adapts to new circumstances and varies in different cultural contexts. Our research is a single-cultural study based on an East Asian context, with its primary interest being in investigating the impact of NSS support on the pre-negotiation stage as well as the negotiation stage. Specifically, the article seeks to answer the following research question: *How does NSS support for different stages of negotiation (pre-negotiation and negotiation) improve/impact upon negotiation outcomes reflected as gains, equality, and time to reach agreement?*

The article is organized as follows. The next section reviews the relevant literature, followed by propositions on the impact of NSS support for pre-negotiation and negotiation over key outcome variables. The research method and the results of statistical analysis are then presented. We discuss these results through a lens of the embedded Asian culture in which this study is conducted. Limitations of the findings as well as future research opportunities are addressed. The last section concludes the article.

LITERATURE REVIEW

Related Work on Group Support Systems (GSS)

In some sense, NSS can be considered a subset of GSS, which can be used to support virtual teams (Huang, Wei, & Lim, 2003). Some work done in GSS could therefore be useful in informing NSS research. During the last decade, there has been an increasing interest in applying computer technologies to support group work. Stimulated by the demands of real world cooperative environment and advances in computer and communication technologies, the field of GSS continues to develop along

Related Content

The Role of Functional Diversity, Collective Team Identification, and Task Cohesion in Influencing Innovation Speed: Evidence From Software Development Teams
Jin Chen, Wei Yang Lim, Bernard C.Y. Tanand Hong Ling (2018). *Journal of Global Information Management (pp. 163-192).*
www.irma-international.org/article/the-role-of-functional-diversity-collective-team-identification-and-task-cohesion-in-influencing-innovation-speed/201012

Mobile Pedestrian Navigation and Augmented Reality in the Virtualization of the Territory: Cities of Salamanca and Santiago de Chile
Jorge Joo-Nagata, José Rafael García-Bermejo Ginerand Fernando Martínez-Abad (2021). *Information Technology Trends for a Global and Interdisciplinary Research Community (pp. 268-301).*
www.irma-international.org/chapter/mobile-pedestrian-navigation-and-augmented-reality-in-the-virtualization-of-the-territory/270010

Tourism, Internet Usage, and Safety
Gülsüm Akarsu (2025). *Encyclopedia of Information Science and Technology, Sixth Edition (pp. 1-23).*
www.irma-international.org/chapter/tourism-internet-usage-and-safety/321238

Adopting Open Source Development Tools in a Commercial Production Environment: Are We Locked In?
Anna Persson, Henrik Gustavsson, Brian Lings, Bjorn Lundell, Anders Mattssonand Ulf Arlig (2008). *Global Information Technologies: Concepts, Methodologies, Tools, and Applications (pp. 874-885).*
www.irma-international.org/chapter/adopting-open-source-development-tools/19012

Contract, Control and 'Presentation' in IT Outsourcing: Research in Thirteen UK Organizations
Thomas Kernand Leslie Willcocks (2002). *Advanced Topics in Global Information Management, Volume 1 (pp. 227-249).*
www.irma-international.org/chapter/contract-control-presentation-outsourcing/4499