Interparty Social Dynamics in the IT Service Level Agreement Negotiation Process: A Preliminary Assessment of Competing Theories

Haluk Demirkan
Department of Information Systems
W. P. Carey School of Business
Arizona State University
Haluk.Demirkan@asu.edu

Michael Goul
Department of Information Systems
W. P. Carey School of Business
Arizona State University
Michael.Goul@asu.edu

Daniel S. Soper
Information Systems and Decision Sciences Department
Mihaylo College of Business and Economics
California State University, Fullerton
dsoper@fullerton.edu

ABSTRACT

In response to the global economic crisis, organizations are cutting costs and focusing on core competencies. One natural corollary of this situation has been an increased interest in the outsourcing of IT services. Such sourcing relationships are established and maintained via formally negotiated IT service level agreements (SLAs), the goal of which is to generate utility for both parties. Understanding the processes that produce successful IT SLA negotiation outcomes is thus of critical importance. While several well-established social theories seem germane to IT service level agreement negotiations, the predictions of those theories are not entirely compatible and consistent. This paper therefore develops and tests several preliminary research propositions in an effort to assess the applicability of these competing theories to the IT SLA negotiation process.

Keywords

Service level agreements, outsourcing, negotiation, social theory.

INTRODUCTION

In considering the dominant economic models of decision-making that emerged during the latter half of the 20th century (e.g., production, transaction, and agency cost theories), one cannot help but notice the universal emphasis on cost savings. Indeed, both short-term and long-term cost-cutting measures have become the hallmark organizational survival strategy during the current global economic crisis. In the looming shadow of this crisis, the desire to cut costs and focus on core competencies has engendered an expanded managerial interest in the development of organizational outsourcing relationships. With respect to the outsourcing of information technology (IT) services, organizations typically negotiate formal contracts with one or more IT service providers to obtain needed IT services (Karten, 1998). Such contracts are known as service level agreements (SLAs), and serve to define the expectations, roles, responsibilities, and channels of communication between a service provider and its customer (ibid.).

While cost savings may be a principal motivator underlying the decision to outsource IT services, the actual implementation of an outsourcing relationship requires the negotiation of an IT SLA. Such negotiation processes constitute a dynamic decision-making environment in which complex social factors have critical implications for the negotiation outcome (De Moor and Weigand, 2004). Sociotheoretical perspectives may thus provide a greater degree of understanding and insight into IT SLA negotiations than could otherwise be obtained from economic models of decision-making alone. There are, however, several competing social theories that appear to be relevant to this domain, many of which produce orthogonal predictions with respect to negotiation outcomes. In light of this situation, the current paper reports upon a preliminary assessment of the

extent to which each of these competing theories is relevant to the IT SLA negotiation process. By examining the predictive and descriptive efficacies of these theories in the context of the increasingly common IT SLA negotiation process, this paper seeks to establish a socially-oriented theoretical foundation upon which decision support systems designed to facilitate the acquisition of organizational IT services by way of negotiated outsourcing relationships can be built.

COMPETING THEORIES

Socially-oriented negotiation models interpret the negotiation process from a number of different perspectives including learning, individual behaviors, joint decision-making, comparison of alternatives, etc. (Lim and Benbasat, 1992-1993). Underlying these negotiation models are several theories and genealogically-related theoretical families which, despite offering frequently incompatible predictions, and without having been evaluated in the context of IT SLA negotiations, have nevertheless been presumed to be relevant to that domain. Chief among these theories and theoretical families are social exchange theory, equity-based theories of negotiation, learning theory, and the principled or "win-win" theories of negotiation, the structures of which are depicted in the context of IT SLA negotiations in Figure 1 below.
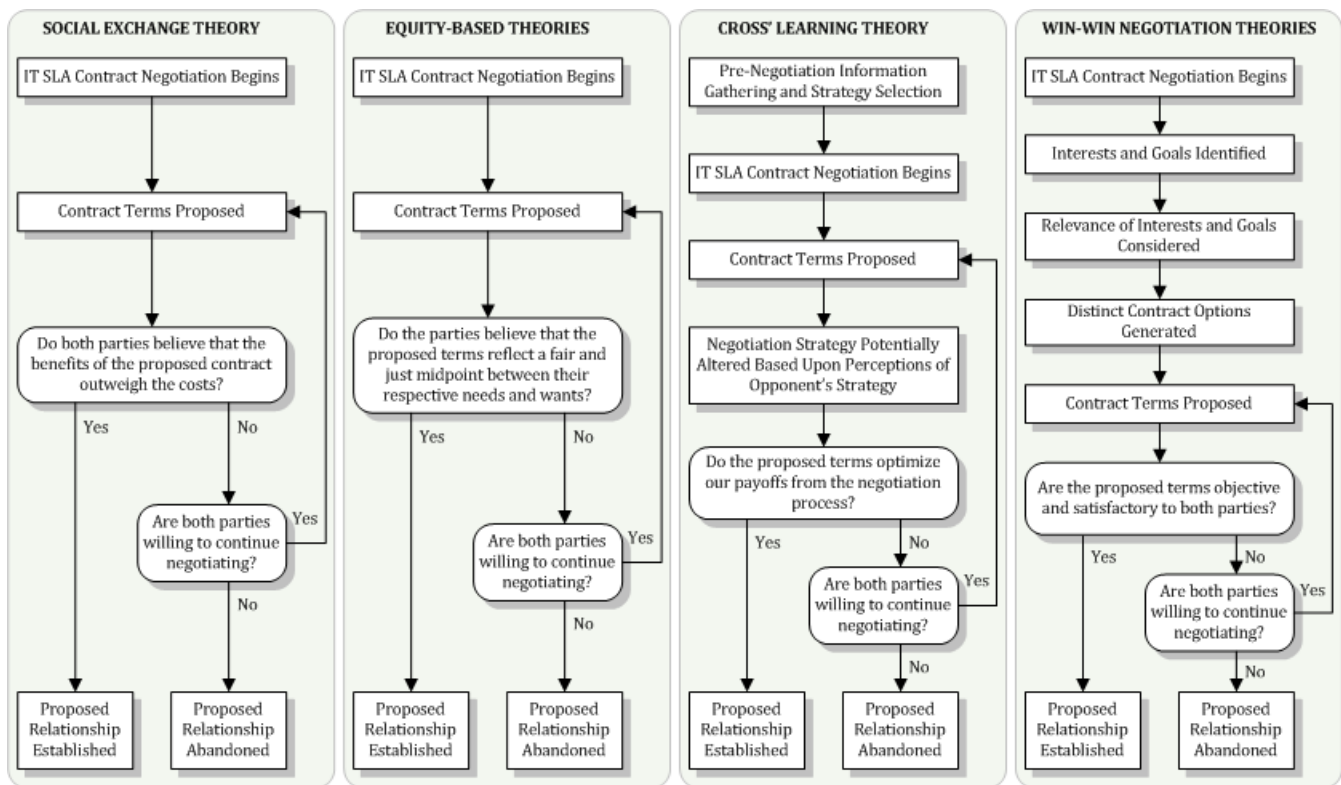

Figure 1. Comparative Sociotheoretical Models of the IT SLA Negotiation Process.

Many socially-oriented negotiation models rely upon social exchange theory, which characterizes the relationship between two parties as being based upon a reciprocal give-and-take association (Kern, 1997). This theory suggests that subjective cost-benefit analyses are performed by each party as they attempt to manage the negotiation process, and an agreement will be reached when both parties judge the benefits of the proposed relationship to outweigh the costs. In contrast, equity theory proposes that an accord will be reached when both parties judge the proposed relationship to be fair and just (Homans, 1961). For the renegotiation of a contract, this implies that a party will resist changing the terms of an IT SLA if its needs are being met through the current arrangement. An extension to equity theory has also been put forth which presumes that the midpoint between negotiators' past demands and offers will be viewed "just", and that they will strive to meet at that midpoint with an eye toward fairness as achieved through reciprocation (Bartos, 1978).

A competing social perspective emphasizes the role of dynamic learning in the negotiation process (Cross, 1978). Under this learning theory, negotiators attempt to optimize negotiation payoffs by employing bargaining strategies that evolve over time. Parties select an initial bargaining strategy based upon perceptions of their opponent, which in turn emerge from the way in which each party learns about the other. Indeed, evidence from the literature suggests that IT SLA negotiation outcomes can be improved when information asymmetries between negotiating parties are narrowed through effective learning (Köppel et al., 1999). Motivated parties that actively and effectively engage in preliminary learning activities may thus be able to outperform their opponents in an IT SLA negotiation.

In addition to the theoretical perspectives noted above, principled negotiation has also been put forth as a "win-win" approach to reaching a lasting agreement (Ury et al., 1991). Under this theory, negotiations centered on the interests of the parties rather than on their positions will prove the most fruitful. Negotiating parties are expected to generate several distinct options before attempting to arrive at a final agreement, which itself must be based solely upon objective measures. A closely-related "win-win" theory of negotiation has also been proposed wherein one party influences the preferences of the other by discussing their underlying motivations for adopting specific goals. The discussion is thusly shifted away from goals, and instead focuses on the relevance of those goals (Rahwan et al., 2003). Parties behaving according to this theory may discover capabilities or needs in the other party that were not initially considered or identified during the pre-negotiation process. Such a discovery can lead to an "expansion of the pie", wherein both parties are able to extract benefits from the relationship that were not expected at the outset of the negotiation process.

One or more of these theoretical models may be relevant to the negotiation of IT SLAs, however as each model provides a tenable predictive and explanatory framework for the IT SLA negotiation process, an inquiry is required to assess the relevance of each to this increasingly important domain.

NEGOTIATION PROCESS AND RESEARCH PROPOSITIONS

IT SLAs are typically negotiated between two parties – the customer and the service provider. The negotiation process begins with each party preparing an initial proposal detailing its objectives for the outsourcing relationship. For the customer, this proposal may include the IT services it wishes to purchase, service and performance expectations, desired cost structures, and any other terms deemed relevant or necessary. For the service provider, this proposal may include a menu of available products and services, capabilities, cost structures associated with different service levels, and any other terms deemed germane to the relationship. With these proposals in hand, the process continues with one or more interparty negotiation sessions. The negotiation ends successfully when both parties agree to a set of terms that are formally detailed in a written contract, or ends in a breakdown when such an agreement cannot be reached. Each of the theories described earlier can be readily mapped to this generic IT SLA negotiation lifecycle, which is depicted in Figure 2 below.
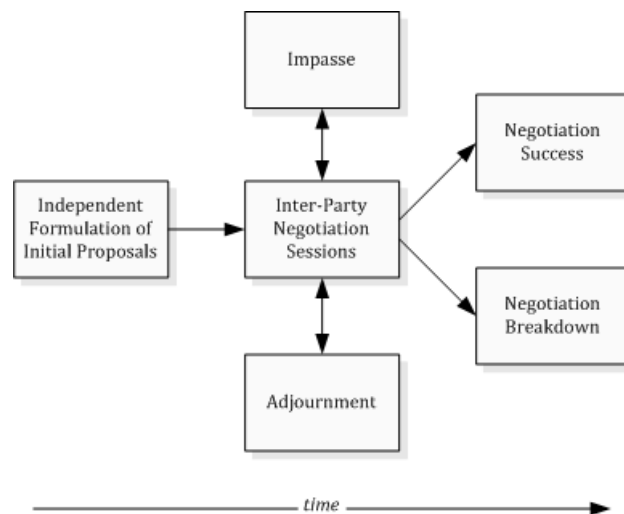

Figure 2. IT SLA Negotiation Lifecycle [adapted from (Holsapple et al., 1998)].

Evaluating the applicability of each theory to this IT SLA negotiation lifecycle requires a deliberate, stepwise approach in which an increasingly robust and rigorous body of evidence is developed over time. The way in which this process is rendered is critically important, as it may produce new boundary conditions for one or more well-established theories. We believe that the identification and evaluation of several preliminary research propositions represents a reasonable first step in this larger theory testing process, and have hence committed the balance of this paper to the development and testing of such a set of propositions.

We first consider social exchange theory and the way in which parties reconcile contentious issues in the IT SLA negotiation process. From this theoretical perspective, the parties involved in an IT SLA negotiation will iteratively offer trade-offs to one another in an effort to secure a mutually-beneficial accord. When the result of this iterative give-and-take process is a set of terms that is viewed by both parties as yielding a net benefit for their organization, a final agreement can be achieved (Kern, 1997). Thus:

> Proposition 01: In an effort to ensure that the parties in an IT SLA negotiation mutually benefit from the proposed relationship, contentious issues will be resolved through a reciprocal give-and-take exchange process.

We next consider the closely-related equity-based theories which together postulate that fair-minded parties will seek to resolve contentious issues by negotiating agreements that lie at the midpoint between each party's initial needs and wants (Bartos, 1978, Homans, 1961). If relevant to IT SLA negotiations, this theory could usefully aid negotiating parties in creating and applying a conflict resolution and prevention strategy which strives for justice and fairness. Thus:

> Proposition 02: A midpoint between contentious IT SLA issues will be viewed by both parties as just, and the parties will strive to achieve that midpoint during the negotiation process.

With respect to Cross' learning theory, the classification of teams as fundamental learning and decision-making units may also have important implications for the negotiation of IT SLAs. According to this theoretical perspective, negotiation teams characterized by high levels of preparation, motivation, and learning can be expected to outperform their less prepared, lower-learning counterparts (Bereby-Meyer et al., 2004). Thus:

> Proposition 03: Negotiation teams will show improved performance as a function of their preparation, motivation, learning processes, and team effort.

The final proposition is derived from the "win-win" theories described previously, and relates to the theory-driven findings of Lee and Kim, which focused on partnership quality (Lee and Kim, 1999). These researchers posit that IT outsourcing negotiation outcomes are related to partnership quality, which in turn is influenced by inter-team communication and participation. Such communication and participation may engender an atmosphere of trust, especially in cases of contract renegotiation among familiar parties. Parties that negotiate in good faith may therefore be able to discover additional capabilities or needs in one another that were not originally identified during the pre-negotiation process, thereby increasing the value of the relationship for both parties (Ury et al., 1991). Thus:

> Proposition 04: A high level of partnership quality, information-sharing, and interparty trust during the negotiation process will lead to the discovery of capabilities or needs that were not initially considered by the parties during pre-negotiation planning.

The following section details an exploratory study which was undertaken to determine the extent to which each of the above propositions and its underlying theoretical foundation is relevant to the IT SLA negotiation process.

EXPLORATORY STUDY METHODOLOGY

Given that IT SLA negotiations and the use of IT SLA artifacts are both quite new to formal research investigations, it was necessary to employ exploratory methodological constructs and approaches that reflect the novelty of the research area. To facilitate the investigation, an IT SLA-based sourcing scenario was developed in which two parties negotiated in an experimental setting for the provision of IT services. To ensure that the negotiation scenario was familiar and relevant to the participants, the two negotiation parties were operationalized as a university's business IT group (the service provider) and the university's MBA students (the customer). The intent of the study was to conduct simulated IT SLA negotiations in order to ascertain both parties' perceptions of the negotiation process, and to then analyze the data obtained from the simulated negotiations in an effort to determine the relevance of the propositions described in the previous section. The process model through which the simulated negotiations were carried out is shown in Figure 3 below.
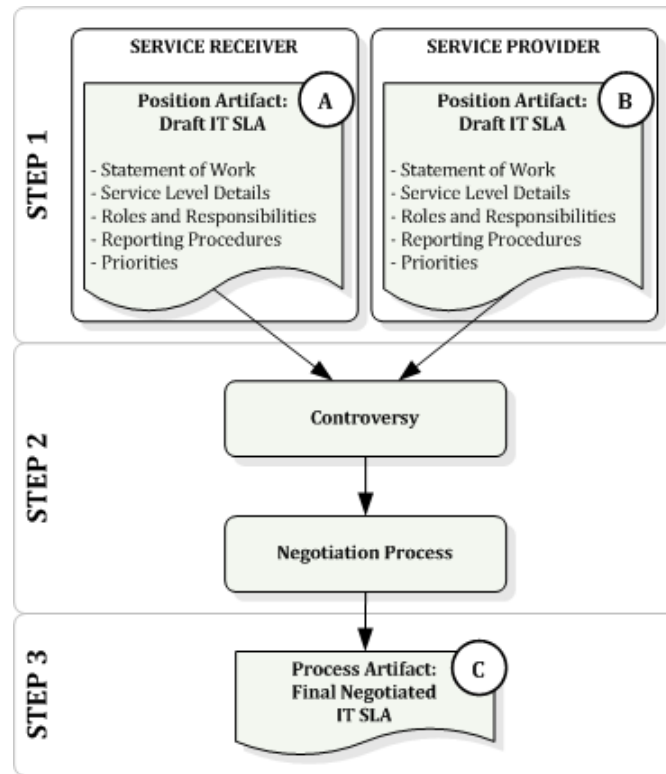
Figure 3. IT SLA Negotiation Process Model.

The subjects in the study were MBA students (19 total subjects) who participated in the experiment as part of the requirements of a graduate level course in the management of distributed business information systems. All of the subjects reported that they had not previously participated in this type of negotiation task. Prior to participating in the study, the subjects were taught about IT SLAs and their development using the USD$6.9 billion U.S. Navy's Marine Corp Intranet contract with Electronic Data Systems (EDS) as an exemplar (NMCI, 2005). The subjects were then randomly assigned into six teams, and were instructed to engage in negotiations with two opposing teams. To control for potential between-negotiation learning effects, the two negotiations were conducted simultaneously. The pairing of the opposing teams was also controlled for to ensure that the members of opposing teams had not previously worked together on other projects. During the experiment, each team was required to play both sides of the negotiation scenario; i.e., in one negotiation each team played the role of the service receiver, while in the other negotiation they played the role of the service provider. Care was taken to ensure that any given team would participate in the negotiation task only once with any other team.

The teams were instructed to prepare initial IT SLA proposals in secret (A and B in Figure 3 above) containing their respective needs and wants with respect to the IT sourcing relationship, and were also instructed that a final agreement must be reached (i.e., an irreconcilable breakdown in the negotiation process was not allowed). Teams were also instructed to communicate openly and negotiate in good faith with their opponents. The initial proposed contract artifacts that resulted from this process defined the roles and responsibilities, goals and objectives, reporting policies, help desk availabilities, penalties, incentives and adjustment procedures, etc., that each team deemed appropriate -- all with specific statements that addressed measurable performance levels based upon their expectations from the IT outsourcing relationship. A two-party negotiation between opposing teams was then conducted, after which the teams jointly constructed a final IT service level agreement (C in Figure 3 above). The artifacts produced by the experiment thus included six initial position statements for each role (12 total), and six final negotiated IT service level agreements. The initial position statements were in the form of preliminary contracts which were used to focus the negotiation and obtain universal agreement among team members regarding the contractual terms they were striving to achieve. The final negotiated IT SLAs represented an agreed-to set of contractual elements specifying performance levels, measures, penalty costs, etc.

Using the content-analytic categorization method described by Neuendorf, an initial analysis of the artifacts was undertaken in order to identify the unique performance areas and service categories addressed therein (Neuendorf, 2002). This process led to the development of a generic data matrix template which contained a comprehensive set of 47 performance areas (Y-axis) and 19 service categories (X-axis). This matrix was then used to conduct a detailed analysis of the textual content of each of the individual negotiation process artifacts, thereby capturing and quantifying the important areas, categories, and priorities of each service item for each team. For these content analyses, a performance area referred to an issue about which IT SLA negotiations might be required, and a service category referred to the type of service relevant to that performance area. For example, the hours of operation for help desk services might be referenced in a particular contract clause. This reference would be reflected in the template by a cell lying at the intersection of the "basic help desk services" performance area and the "availability" service category.

The data matrix was thus used to quantitatively compare the coverage of each initial position artifact to its associated final IT SLA artifact. For each negotiation artifact, the cells in the matrix were populated by performing a density count of the occurrences of each service item within the text of the contract, thus allowing the relative importance of each service item to be quantified (Soper et al., 2005). For example, if the availability of computer hardware was noted in three clauses within one of the initial position artifacts; a value of "3" would be recorded in the cell lying at the intersection of the "availability" service category and the "computer hardware" performance area in the data matrix. Table 1 below provides an aggregated count of the "importance factors" for each high-level performance area/service category combination from the teams' initial negotiating positions. These summary data are included in order to facilitate understanding of the nature of the data collected.

PRE-NEGOTIATION AGGREGATE IMPORTANCE FACTORS - SERVICE PROVIDER				
Service Area	**Performance Area**			
	Manageability	**Usability**	**Consistency**	**Resolvability**
User Services	26	123	62	23
Maintenance and Help Desk Services	8	28	6	19
Communication and System Services	3	20	10	4
Information Assurance Services	2	10	6	2
Other Requirements	2	15	8	3

PRE-NEGOTIATION AGGREGATE IMPORTANCE FACTORS - SERVICE RECEIVER				
Service Area	**Performance Area**			
	Manageability	**Usability**	**Consistency**	**Resolvability**
User Services	51	138	74	28
Maintenance and Help Desk Services	7	37	8	23
Communication and System Services	7	25	17	3
Information Assurance Services	2	11	7	2
Other Requirements	2	19	15	5

Table 1. Aggregate Summary of Initial IT SLA Proposals.

As the data matrix contained 47 performance areas across 19 service categories, a total of 893 dimensions were evaluated for each of the 18 negotiation artifacts. The result of these content-analytic procedures was thus a set of 18 data matrices, each of which constituted a valid numeric representation of the textual content of its corresponding source artifact. By transforming these matrices into multidimensional vectors, it became possible to use the method described by Soper et al. (2005) to compute the Euclidean distances between the negotiation artifacts and the degrees of similarity between those artifacts. Using this approach, an ordered vector of numbers describing the content of an IT SLA artifact defines the location of the artifact within a multidimensional geometric space. The distance between any two artifacts can then be computed using the Euclidean distance formula, as long as the two contracts lie within the same geometric space. This method also describes how

the Euclidean distance measure and the degree of similarity between two IT SLAs are mathematically related via an exponential decay function (Shepard, 1987, Soper et al., 2005).

Insight into the IT SLA negotiation process was gained by quantitatively comparing the terms contained in the preliminary artifacts to those contained the final negotiated SLA. For example, the service provider's initial position may have reflected a desire to respond to hardware service requests within 48 hours, while the customer's initial position may have specified 24 hours. Such initial differences can be considered points of contention requiring reconciliation during the negotiation process. By quantitatively comparing these initial differences to their analogous terms in the final negotiated IT SLA, it was possible to identify how contentious issues were resolved. These quantitative techniques thus allowed a great deal of insight to be gained into the theoretically-derived propositions put forth previously.

RESULTS AND DISCUSSION

Table 2 below contains the results of the inter-artifact IT SLA distance computations, as well as the similarity coefficients that were obtained after standardizing those distance measures by comparison type.

Negotiation ID	Distance Between Initial Proposals	Distance Between Provider's Proposal & Final IT SLA	Distance Between Receiver's Proposal & Final IT SLA	Similarity Coefficient - Initial Proposals	Similarity Coefficient - Provider's Proposal & Final IT SLA	Similarity Coefficient - Receiver's Proposal & Final IT SLA
1	106	14	106	1.071	4.999	0.189
2	101	74	53	1.344	1.187	0.817
3	126	121	9	0.431	0.385	2.751
4	71	68	37	5.252	1.371	1.270
5	134	130	10	0.299	0.310	2.676
6	107	80	59	1.023	1.028	0.692

Table 2. Euclidean Distances and Similarity Coefficients for IT SLA Negotiation Artifacts.

The similarity coefficients reported for the initial proposals yield significant insights into the early phase of the IT SLA negotiation process. While the majority of the proposals were quite dissimilar, the initial artifacts produced by the teams participating in Negotiation 4 were observed to be remarkably alike. As the early objectives of those two negotiation teams were clearly aligned with one another, it is not surprising that the similarity coefficients between those teams' initial proposals and their final negotiated IT SLA are of nearly the same magnitude. In this particular example, it is possible to conclude that the parties were able to successfully negotiate a final agreement that diverged comparatively little from their respective initial positions. The outcome of Negotiation 4 was unusual however, as the similarity coefficients between the other initial proposals and their corresponding final IT SLAs were substantially different from one another. In these negotiations, the difference between a team's initial bargaining position and the final negotiated IT SLA serves as a direct indicator of how successful the team was in achieving its pre-negotiation objectives. Using Negotiation 1 as an example, it is possible to conclude that the service provider team was substantially more successful than the service receiver team in achieving its objectives, as the similarity coefficient between the service provider team's initial proposal and the final negotiated IT SLA (4.999) was significantly larger than that of the service receiver team (0.189). From a competitive negotiation perspective, one might conclude that the service provider team "won" the negotiation, while the service receiver team "lost". Excepting for Negotiation 4, similar trends were observed to exist for each of the remaining negotiations, indicating that in each case one team was substantially more successful than the other in achieving its initial objectives.

Figure 4 below depicts the performance of each negotiation team relative to the performance of its two opponents. The negotiation performance metric shown in the figure was computed as the difference in initial proposal/final IT SLA distances between the team in question and its opponents. Negotiation performance values larger than zero indicate that a team outperformed its opponent, while values smaller than zero indicate that a team underperformed its opponent. As shown in the figure, most teams performed marginally, as they were able to "win" one of their negotiations while "losing" the other. Of the

six teams, the members of Team 2 were the most successful in achieving their initial objectives, as they were able to outperform their opponents in both of their negotiations. The members of Team 5, however, were not so fortunate, as they "lost" both of their negotiations by a wide margin -- an observation which indicates that the team acceded to the demands of their opponents while gaining comparatively little.
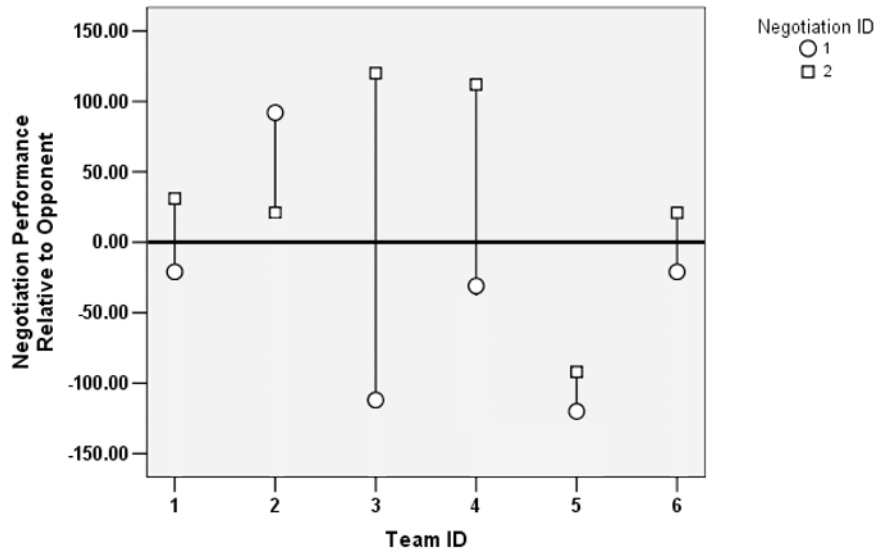

Figure 4. Comparative Negotiation Team Performance.

Returning to our research propositions, the first proposition, which was derived from social exchange theory, posited that contentious issues arising during the negotiation would be resolved through a reciprocal give-and-take exchange process. To evaluate this proposition, the terms in the initial IT SLA proposals were compared with those in the final negotiated IT SLAs to determine the extent to which each party in the negotiations had acceded to the demands of the other party in exchange for concessions on other issues. Points of contention were identified as clauses contained in both parties' initial proposal artifacts for which different levels of service were specified. In sum, 563 contentious issues requiring resolution were identified across the six negotiations, 489 (86.9%) of which exhibited a service level in the final negotiated IT SLA that was identical to the analogous clause contained in one party's initial proposal, but not in the other. Of these issues, 145 (29.7%) reflected the initial desires of the service provider teams, while 344 (70.3%) represented the initial desires of the service receiver teams. It is thus possible to conclude that on average, the service provider teams were willing to make trade-offs to resolve contentious issues with the service receiver teams at a rate of approximately 2.4 to 1 in order to secure a final agreement. These observations thus indicate the presence of an uneven reciprocal give-and-take exchange process during the negotiations, and provide evidence in favor of social exchange theory to the IT SLA negotiation process.

With respect to Proposition 02, strong evidence emerged in the data against the efficacy of the equity model to the IT SLA negotiation process. The distance and similarity coefficients presented In Table 2 -- which compare teams' initial proposals to the final negotiated IT SLA -- indicate that the negotiations did not ultimately result in an equitable midpoint which balanced considerations from both teams' initial proposals. Further evidence in opposition to Proposition 02 was obtained through the analysis of the points of contention present in the interparty negotiations. Of the 563 contentious issues, only 16 (2.8%) were ultimately resolved by the teams agreeing on a midpoint between the service levels specified in the initial proposals. While the requirement to reach an agreement may have influenced these outcomes somewhat, we nevertheless believe that these observations cast serious doubt on the relevance of the equity-based theories to the IT SLA negotiation process.

As noted previously, the teams in the study were comprised of subjects who possessed similar negotiation training and experience, and who played identical roles in the two assigned negotiation tasks. As such, we assume that any initial differences in negotiating skill were minimal. In each negotiation, the two initial proposal artifacts were consistently observed to differ substantially from one another with respect to their complexity. We believe that the complexity of an initial proposal -- as measured by the number of unique service items addressed in the proposal -- serves as a high-quality indicator

of the level of preliminary preparation, motivation, and effort exerted by the negotiation team. A difference in the complexity of initial proposal artifacts thus indicated a disparity in the extent to which the teams had prepared for the negotiation process. The observed differences in complexity among the initial proposals for each negotiation are shown in Table 3 below, as is the distance between each initial proposal and its associated final IT SLA. The aggregate complexity values reported in this table refer to the number of unique service items addressed by each of the initial proposal artifacts.

Negotiation ID	Aggregate Complexity of Initial Proposal		Distance Between Initial Proposal and Final SLA	
	Service Provider	Service Receiver	Service Provider	Service Receiver
1	86	62	14	106
2	49	86	74	53
3	98	72	121	9
4	30	65	68	37
5	55	110	130	10
6	62	85	80	59

Table 3. Initial Proposal Complexities and Associated Negotiation Outcomes.

As shown in the table, the teams that were better-prepared in the early phase of the negotiation process -- as measured by the effort and complexity reflected in their initial proposals -- were ultimately rewarded with a higher level of performance in the majority of the negotiations. More specifically, the structure and content of the final IT SLA was much closer to the structure and content of the proposal developed by the better-prepared team in five of the six negotiations. If we accept the complexity of the initial proposal as a measure of preparedness, then this observation indicates that the better-prepared teams were almost always able to ensure that the final negotiated IT SLA reflected their initial terms and priorities to a greater extent than their opponents. This finding provides support for Proposition 03, which postulated that preparation, motivation, and team effort would play a significant role in the extent to which teams would be able to achieve success. Cross' learning theory would thus seem to be applicable to the IT SLA negotiation process.

Proposition 04, which was derived from the "win-win" theories, posited that parties negotiating in good faith would discover capabilities or needs in one another that were not initially considered. To evaluate this proposition, the terms contained in each party's initial proposal artifact were compared with those contained in the final negotiated IT SLA. Any service items referenced in the final IT SLA that did not appear in either of the initial proposals would indicate that the teams had effectively "expanded the pie" during the negotiation process. Table 4 below summarizes the results of this analysis.

Negotiation ID	Service Items in Final IT SLA not Appearing in Initial Proposals
1	5
2	4
3	0
4	6
5	2
6	3

Table 4. Summary of "Expanding the Pie" Analysis.

As shown in the table, in all but one of the negotiations the teams were able to "expand the pie" through the negotiation process, an observation which provides some support to the relevance of the "win-win" theories to the IT SLA negotiation process. Further investigation of this outcome will likely require an analysis of inter-party communication.

CONCLUDING REMARKS

By quantitatively analyzing data gathered from a controlled IT service level agreement sourcing scenario, the research reported here identified a number of preliminary insights regarding the relevance of several social theories to the IT SLA negotiation process. Whereas social exchange theory, Cross' learning theory, and the "win-win" model were found to be relevant to the negotiation of IT SLAs, social equity theory was not. With respect to the lack of support for social equity theory, a predisposition towards self-interest may exist among the members of a negotiation team which produces an environment characterized more by positional bargaining than by principled negotiation. Individual predispositions may thus have an impact on team performance, and by extension, on the nature and quality of the final IT SLA itself. To that end, both an individual perspective and a group perspective will likely be required in order to fully understand the IT SLA negotiation process.

As our work is but a first step in a lengthy theory evaluation process, several rich possibilities remain for further studies in this area, including examinations of the relevance of game theory, political theories, and economic theories to the IT SLA negotiation lifecycle. The examination of these theories, however, will likely require new evaluative constructs such as the data matrices and distance/similarity approaches utilized herein in order to coalesce a comprehensive IT SLA and all of its specifics into viable hypothesis-testing metrics. Despite these challenges, the increasing importance of IT SLA negotiations in the midst of the current global economic crisis implies a need for further research in this area with a view toward achieving high-quality IT SLA negotiation outcomes.

REFERENCES

1. Bartos, O. J. (1978) Simple Model of Negotiation: A Sociological Point of View, in I. W. Zartman (Ed.) The Negotiation Process: Theories and Applications, Beverly Hills, CA: Sage Publications.
2. Bereby-Meyer, Y., S. Moran, and E. Unger-Aviram (2004) "When performance goals deter performance: Transfer of skills integrative negotiations," Organizational Behavior and Human Decision Process (93) pp. 142-154.
3. Cross, J. G. (1978) Negotiation as a learning process, in I. W. Zartman (Ed.) The Negotiation Process: Theories and Applications, Beverly Hills, CA: Sage Publications.
4. De Moor, A. and H. Weigand (2004) "Business Negotiation Support: Theory and Practice," International Negotiation (9) 1, pp. 31-57.
5. Holsapple, C. W., H. Lai, and A. B. Whinston (1998) "A Formal Basis for Negotiation Support System Research," Group Decision and Negotiation (7) 3, pp. 203-227.
6. Homans, G. C. (1961) Social Behavior -- Its Elementary Forms. New York, NY: Harcourt Brace Jovanovich.
7. Karten, N. (1998) How to establish Service Level Agreements. Karten Associates: Randolph, MA.
8. Kern, T. (1997) The Gestalt of an information technology outsourcing relationship: an exploratory analysis. Eighteenth International Conference on Information Systems (ICIS), Atlanta, GA, 1997, pp. 37-58.
9. Köppel, A., D. Böning, and S. Abeck. (1999) How to Support the Negotiation of Service Level Agreements (SLAs) for Your Client/Server Application. Third World Multiconference on Systemics, Cybernetics and Informatics (SCI) and the Fifth International Conference on Information Systems Analysis and Synthesis (ISAS), Orlando, FL, 1999.
10. Lee, J.-N. and Y. G. Kim (1999) "Effect of Partnership Quality on IS Outsourcing Success: Conceptual Framework and Empirical Validation," Journal of Management Information Systems (15) 4, pp. 29-61.
11. Lim, L. H. and I. Benbasat (1992-1993) "A theoretical perspective of negotiation support systems," Journal of Management Information Systems (9) 3, pp. 27-45.
12. Neuendorf, K. (2002) The Content Analysis Guidebook. Thousand Oaks, CA: Sage.
13. NMCI (2005) U.S. Navy Marine Corp Intranet SLA Contract. Arlington, VA: U.S. Navy Marine Corp Intranet.
14. Rahwan, I., L. Sonenberg, and F. Dignum. (2003) Towards Interest-Based Negotiation. Second International Joint Conference on Autonomous Agents and Multiagent Systems, Melbourne, Australia, 2003, pp. 773-780.
15. Shepard, R. (1987) "Toward a Universal Law of Generalization for Psychological Science," Science (237) pp. 1317-1323.
16. Soper, D. S., M. Goul, H. Demirkan, E. Aranda et al. (2005) A Vector-Based, Content-Analytic Methodology for Comparing Negotiated IT Service Level Agreements. Eleventh Americas Conference on Information Systems (AMCIS), Omaha, NE, 2005.
17. Ury, W., R. Fisher, and B. Patton (1991) Getting to Yes: Negotiating Agreement Without Giving In. New York, NY: Penguin Books.