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Negotiations in project sales and delivery process

An application of negotiation analysis

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What this report is about?

Contemporary project business is characterized by networks of companies, subprojects and participating individuals. The orchestration of a project network towards its ultimate goal requires simultaneous negotiation with multiple parties. Without appropriate negotiation practices between project parties in place, even the finest engineering solutions or most innovative contracting methods for organizing project activities will remain abstract and ineffective in achieving the ultimate goals of the project.

Yet, mastering negotiations with multiple partners first requires mastering the simpler case of negotiations between two major parties, which, in a project setting, translates into searching for win-win solutions between a project contractor and a project client. This report interprets the entire process of selling and delivering a project as a negotiation process. We suggest that negotiations between the contractor and the client occur throughout the lifecycle of a project delivery, with different emphasis in different phases.

The simplistic and static to-the-plan or by-the-contract focus on managing project activities is suggested to be enhanced by a dynamic negotiation process. Such a negotiation-oriented approach shifts project management towards a more meaningful, continuous search of ever more appropriate business solutions for the client. In addition, the negotiation-oriented approach emphasizes a contractor's continuous management of customer relationships, placing more focus on future business with additional project deliveries than on mere management of the work of an individual project.

For the purpose of describing and analyzing negotiations in project sales and delivery, this report uses two important areas of established scientific knowledge: negotiation analysis and project marketing. Through these two areas, this report paves the way towards our understanding of negotiation in project networks, with chains of contractors' delivery projects and clients' procurement-contained projects, constituting altogether a whole network of companies and their projects.

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Abstract

Project sales and delivery processes entail complex negotiations between client and contractor, as the details of the project are agreed upon during extensive interaction, often over a substantial period of time. Although very little research has been done on project negotiations as such, established research in the area of negotiation analysis provides a theoretically well-founded framework for studying project negotiations. This study applies the negotiation analysis framework to describe and analyze negotiations in the context of project sales and delivery processes.

The body of this report first develops an understanding of the concept of negotiation and reviews the negotiation analysis approach. Second, the project sales and delivery process and its distinctive features are reviewed and their implications on negotiations in projects are analyzed. Third, the logic and concepts of negotiation analysis are used to describe and analyze a selected set of negotiation strategies available to either the client or contractor at different phases of a single project.

The main results of the study include a conceptualization of the project sales and delivery process as a negotiation problem, and a qualitative description of selected negotiation strategies in terms of negotiation analysis. The concepts used (e.g. phases of negotiation, interests, issues, and best alternatives to a negotiated agreement) can be applied in practical settings for the purposes of training professionals and preparing for negotiations, and ultimately for transforming negotiation games in the favor of practicing negotiators.

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1 Introduction

1.1 Background

Project business is concerned with complex transactions involving products and services which are integrated into “total solutions” to deliver certain business benefits within the constraints of time, cost and quality (Grönroos 1994, Turner 1999). Project sales and delivery processes entail complex negotiations between buyer and seller, as the details of the project are agreed upon during extensive buyer-seller interaction, often over a substantial period of time (Skaates, Tikkanen & Lindblom 2002). It is widely admitted that the parties face significant difficulties in negotiating major projects (Cova, Ghauri & Salle 2002), but very little research has been done on the project negotiation process (Ghauri & Usunier 1996).

Concerning negotiations in general, however, there is a whole body of research focusing on negotiation as a distinct field of study and a universal type of human decision-making process (Bazerman & Neale 1992, Fisher, Ury & Patton 1991, Young 1991, Raiffa 1982, Sebenius 1980, Rubin & Brown 1975). As a distinguished approach within this body of research, negotiation analysis offers a logically consistent framework for studying negotiations, essentially based on the model of rational behavior (Sebenius 1992). Applying the negotiation analysis approach to scarcely researched project negotiations constitutes an interesting research subject. The negotiation analysis may potentially contribute to the development of a systematic project negotiation framework, and, ultimately, to crafting better contracts in project business, where complexity and financial commitment are often very high.

1.2 Research orientation

The main purpose of this study is to apply the negotiation analysis approach to the context of project business. Towards this end, this report first reviews the negotiation analysis approach to familiarize the audience of project business literature with the logic and basic elements of the

approach. The negotiation analysis framework is then used to describe and analyze a set of selected negotiation strategies that the main project counterparts, the client and the main contractor, may employ.

Acknowledging the ambiguity of the concept of “strategy,” it is important to define its meaning in the context of negotiations. The concept of “negotiation strategy” in this context refers to generic means to influence ultimate payoffs from negotiation situations. A negotiation strategy is therefore used to denote any deliberate action, or a complete course of action, which a negotiating party may choose to rely on in order to attain as favorable outcomes as possible, and could as well be dubbed a negotiation maneuver.

The negotiation analysis approach is a theoretically well-founded methodology, which may, due to its generality, serve to integrate insights from different approaches to (project) negotiations (Raiffa, Richardson & Metcalfe 2002). The logic and the set of concepts employed here are also general, and can therefore be applied to various negotiations for developing insights into the special characteristics of any given situation (Sebenius 1992). Similarly, the negotiation strategies discussed in this study are general, applicable to most situations, in contrast to situational particularities.

A main advantage of the negotiation analysis approach is its conceptual clarity, which can be used to stimulate fundamental thinking regarding negotiation situations (Raiffa et al. 2002). However, the approach relies heavily on the model of rational behavior and does not therefore emphasize the issues that arise from focusing on interpersonal and cultural styles, on atmosphere, on personality and psychoanalytic motivation, or a host of other “softer” aspects relevant to negotiations. We suggest that such behavioral and cultural issues can be subjected to empirical research and experimentation, once we begin to understand the rational ideal and its practical applications in selling and delivering projects. Under the assumption of rational decision-making, negotiating parties always calculate, i.e. define their objectives, enumerate their alternatives, evaluate

the alternatives against the objectives and choose the best, or “optimum” alternative.

It is also important to acknowledge that there is a diversity of contracts and associated delivery systems in project business, with different performance measures and behavioral dynamics. The discussion here applies primarily to lump sum, fixed duration contracts, which, inarguably, characterize the contemporarily predominant contracting method.

1.3 Structure of report

This report includes five chapters. This chapter (Chapter 1) sets the scene for further chapters. The background, motivation, objectives, and research orientation of the study were addressed. In Chapter 2, the negotiation analytic approach is reviewed. The chapter starts with a more general review of the concept of negotiation and outlines previous research on the subject. The concepts and logic of negotiation analysis are summarized with a visually represented model of the approach. In Chapter 3, the distinctive features of project sales and delivery projects are examined from the perspective of negotiations. In Chapter 4, a set of selected project negotiation strategies are analyzed using the concepts of negotiation analysis. Finally, Chapter 5 discusses the results and implications of the study. The results include practical implications for managerial project sales and delivery applications in project industries.

A glossary of terms on the end of the report helps the reader with understanding the special negotiation terminology needed for conceptualizing the phenomenon of negotiation and the application of different strategies in negotiations. Furthermore, while reading the report, the glossary makes it easier for the reader to re-check the meanings of some specific abbreviations that are used throughout the report.

2 Negotiation analysis

2.1 Introduction

Negotiation is the process of joint decision-making (Young 1991). In international politics, negotiation consists of discussions between officially designated representatives designed to achieve a formal agreement of their governments to the way forward on an issue that is either of shared concern or in dispute between them (Berridge 2002). Business negotiations, in turn, may be understood as encounters between economic organizations with the goal of reaching agreements to provide economic benefits (Dupont 2002). In fact, the original meaning of the word “negotiation” is simply to carry on business (Webster 2005).

Negotiations take place in all domains of life, but the structure and pattern of negotiations are fundamentally the same at a personal level as they are at diplomatic and corporate levels (Lewicki et al. 1999). There are four characteristics common to all negotiation situations (Raiffa et al. 2002, Lewicki 1992, Rubin & Brown 1975):

- First, there are two or more parties
- Second, the parties can cooperate to arrive at a joint decision
- Third, the payoffs to any party depend either on the consequences of the joint decision or alternatives external to the negotiations
- Fourth, the parties can reciprocally and directly exchange information

Parties may refer to individuals or groups of individuals. However, ultimately it is individuals who interact, for their own purposes or as agents for groups. The concepts of party, individual, decision maker, agent, player, and actor can therefore be considered synonymous in this context: they all refer to a single, unitary decision entity. Groups consist of plural unitary decision makers, but when their interests are shared enough,

an abstraction is often made and a group is treated as a unitary decision entity (Raiffa et al. 2002).

The concept of decision has to do with two important aspects: selection and commitment (Mintzberg 1981). If there is only one course of action available, no selection can be made, and the concept of decision is inapplicable. On the other hand, if an option has been selected, but a party does not feel committed to it, no decision has been taken. For example in organizations, a plan may have to be ratified by other members before organizational commitment can be said to exist.

In negotiations, the parties must arrive at a joint decision (Raiffa et al. 2002). The word joint means that the parties must select and commit to a common course of action together. A jointly selected, common course of action is called an agreement. Zartman (2002) defines negotiation as a process by which contending parties come to an agreement.

An agreement determines a payoff for each party (Sebenius 1992). The fundamental objective of negotiations is to jointly select and commit to courses of action that are superior to unilateral action for each and every party (Raiffa et al. 2002). Parties are motivated to negotiate by payoffs that they can not achieve without joint behavior. Negotiation is therefore aimed at either creating something that neither party could do on his own, or to resolve a problem or dispute between the parties (Lewicki et al 1999).

Finally, the negotiation process is essentially communication, direct or tacit, between individuals who are trying to forge an agreement for mutual benefit (Young 1991). Also Kremenjuk (1993) defines negotiation as basically purposeful communication between two or more parties. Communication is a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior (Webster 2005).

Based of the above discussion, negotiation can be defined as “a process of joint decision-making where two or more parties communicate to select

and commit to a common course of action that is superior to unilateral alternatives.”

At the heart of the subject of negotiation is essentially the insight that unilateral, i.e. separate and independent behavior, even if perfectly intelligent and calculating, often leaves interacting parties with outcomes inferior to what can be achieved through joint behavior. As the classical prisoner’s dilemma well illustrates (see e.g. Raiffa et al. 2002), purely self-serving actions of independent, but interacting parties do not always serve the interests of either of the parties in the best possible way. The key insight is that numerous social contexts are analogous with the prisoner’s dilemma, and negotiations can effectively be considered as a process of moving away from less-than optimal outcomes towards increased payoffs, and the distribution of those payoffs.

In an era of growing interdependence, negotiation research has experienced a tremendous growth of interest. Key publications in the history of negotiations include: Machiavelli’s “The Prince” from the 16th century, and Callières’ “On the Manner of Negotiating with Princes” from the 18th century. However, it was only in the late 1900’s that research and writings on negotiations became a distinct area of study. Work in this area began with writings on diplomatic negotiation (Iklé 1987, Zartman & Berman 1983). The area of study was broadened by those who regarded negotiation as a much more universal type of human activity and an inalienable part of the human decision-making processes (Bazerman & Neale 1992, Fisher et al. 1991, Raiffa 1982, Sebenius 1980, Rubin & Brown 1975). More recently, negotiation research has shifted from being exclusively a part of diplomatic or commercial knowledge toward the area of management and business (Avenhaus 2001).

Previous research has shown through simulated experiments that, contrary to people’s common beliefs, people on average are not very good at negotiating optimal outcomes (Raiffa et al. 2002). The discipline of negotiation is still relatively unsystematic and most negotiators have had little formal training on the subject (Lewicki, Saunders & Milton 1999).

Negotiators predominantly rely on implicit knowledge, individual capabilities and situational factors in crafting agreements (Ertel 1999). Although experience and sound intuition are at least as important to successful negotiation as any amount of analysis, some analysis is necessary to correct people's intuition and to force them to reexamine their assumptions (Young 1991). Analytical reasoning, backed up by empirical evidence, can deepen ones understanding of real world negotiating situations (Raiffa et al. 2002).

Research has shown that the most common mistake in negotiations is that negotiations are perceived as zero-sum games, which demand competitive behavior. In other words, central to negotiations is the belief that there is a limited, controlled amount of resources to be distributed – a “fixed pie” situation (Lewicki et al. 1999, Fisher et al. 1991). However, most negotiations also present opportunities for solutions, in which one party's gains do not necessarily come at the other parties' expense – the gains need not be mutually exclusive (ibid.). The fundamental structure of many negotiations is such that it allows for solutions, from which one or all parties only gain –“expanding the pie”, or a plus-sum situation (Lewicki et al. 1999).

The negotiations in which creating joint value is an obvious opportunity are often referred to as integrative, collaborative, win-win or creating negotiations (Raiffa et al. 2002, Lewicki et al. 1999, Fisher et al. 1991). The negotiations in which the structure presents no or less-obvious opportunities for joint gains are referred to as distributive, competitive, win-lose or claiming negotiations (ibid.).

Distributive negotiations are generally concerned with the division of a single resource, i.e. there is only one issue under negotiation, and behaviorally speaking, they tend to be less collaborative than integrative negotiations (Raiffa et al. 2002). Researchers have shown that the failure to reach integrative agreements is often linked to the failure to exchange information to allow the parties to identify efficient contracts (Kemp & Smith 1994, Raiffa et al. 2002). Effective information exchange promotes

the development of good integrative solutions (Pruitt 1981, Thompson 1991).

Most negotiations actually present a tension between creating joint value, i.e. increasing the payoffs to all parties, and claiming individual value, i.e. increasing the payoffs to a single party unilaterally, often referred to as the “negotiators dilemma” (Raiffa et al. 2002). This is a key distinction central to negotiation research and a prevalent setting in most real-world negotiations.

2.2 Negotiation analysis

2.2.1 Theoretical roots of negotiation analysis

Negotiation analysis can be characterized as an approach, which builds on the theory of games, decision analysis and behavioral decision theory, but departs from some of their analytic rigor and formal argumentation in order to pursue a broader scope of application and increased practical value (Sebenius 1992).

Game theory provides a logically consistent framework for analyzing interdependent decision-making (see e.g. Luce & Raiffa 1957). In game theoretic analyses, the parties make their decisions independently of each other, but these separate choices interact to determine a payoff for each side (Raiffa et al. 2002). Game theory proceeds by applying standard utility axioms to abstract the interests of the parties into utility functions. An expected utility criterion is used to rank alternative courses of action. Full descriptions of the courses of action that can be taken by each party are encapsulated into “strategies.” Rigorous analysis of the interaction of the strategies leads to search for “equilibria” or complete campaigns of action such that each party, given the choices of the other parties, has no incentive to change its plans.

Decision analysis is the systematic decomposition and clarification of a decision problem (see e.g. Clemen 1996). Decision analysis studies independent decision-making, where the payoffs of decisions are not

affected by the decisions of other involved parties, anticipating one's actions (Raiffa et al. 2002). It proceeds by structuring and sequencing the party's choices and chance events, then separating and subjectively assessing probabilities and values, as well as risk and time preferences. An expected utility criterion is again used to aggregate these elements in ranking possible courses of action to determine optimal choice.

Behavioral decision analysis is concerned with describing how and why people think the way they do (Bazerman & Neale 1992). The field has identified a number of deviations from the rationality ideal. Such deviations are called behavioral errors, biases, heuristics and anomalies (see e.g. Kahneman, Slovic & Tversky 1982). Behavioral decision analysis gives good descriptions of how the other parties might actually behave, and also informs the parties of decision-making fallacies that they are susceptible to.

However, the assumptions required for a game-theoretic analysis are invalid for the majority of real-world situations, decision analysis is not suited to interdependent decision-making and behavioral decision theory lacks prescriptive value. For these limitations, none of the fields of game theory, decision analysis, or behavioral decision analysis alone is sufficient for the prescriptive study of negotiations. In response, negotiation analysis seeks to synthesize contributions from all of these three fields.

The negotiation analysis approach uses important aspects from the three fields of theory described above. Thinking game-theoretically about the interaction of separate decisions can help to understand the underlying power structure and the opportunities for leverage in negotiations (Raiffa et al. 2002). An individual decision-making perspective enables comparison of the benefits of a joint agreement with separate or unilateral action (ibid.). And behavioral decision analysis can be used in modifying one party's behavior, or for effectively exploiting the behavior of others (ibid.).

2.2.2 Special features of negotiation analysis

Although negotiation analysis draws heavily from the three fields of theory discussed above in the end of the previous section, the approach has four distinct features (Sebenius 1992): An asymmetrically descriptive-prescriptive orientation, a radically subjective perspective, a sensitivity to “value left on the table”, and a focus away from equilibrium analysis and toward perceptions of the zone of possible agreement. Each of these four distinctive features of negotiation analysis are discussed in the following.

An asymmetrically prescriptive-descriptive orientation means that negotiation analysis typically seeks to develop prescriptive advice to one party, given a description of how others will behave (Sebenius 1992). The development of asymmetrical advice to one party is in line with decision analysis; whereas game theory obliges to consider the behavior of other parties; and behavioral decision theory gives descriptions of how the other side might behave. In developing advice, the analysis typically assumes intelligent, but boundedly rational, self-interest seeking behavior by the other parties. Boundedly rational behavior is intended to be rational, in the sense of calculatedly maximizing personal utility, but is constrained by limited cognitive, temporal or computational capabilities (Simon 1997). Self-interest seeking means that a party has goals of its own, which the party actively pursues (c.f. Williamson 1985). When commands or contracts are ambiguous, a party will make choices in ways consonant with his or her self-interests.

A radically subjective perspective means that the analysis relies heavily on subjective sources of information in three respects; (1) assessment of probabilities is up to the individuals involved; (2) all subjective perceptions of basic interests and more operational objectives are considered legitimate. This means that less tangible concerns such as self-image and relationships can have the same analytic importance as economical considerations, such as cost, quality and time (c.f. Ertel 1999, Fortgang, Lax & Sebenius 2003); and (3) the other sides’ expected behavior is assessed subjectively, in light of available evidence.

Sensitivity to “value left on the table” refers to an acknowledgement that the negotiating parties do not automatically reach efficient solutions, which is often assumed in game theory (Sebenius 1992). One of the main purposes of negotiation analysis is to help the parties identify and realize potential gains through a systematic study of the negotiation situation (Raiffa 1982).

A focus away from equilibrium analysis and toward perceptions of the zone of possible agreement essentially means that the situation is incompletely determined (Schelling 1960). In other words, the situation is not fixed and cannot be described objectively in full detail, since the parties, themselves construct the situation: the game is simply whatever the parties act as if it is (Sebenius 2002). For example, the parties can take action to introduce new alternatives, to influence the other parties’ preferences, or to change their own conditions for an agreement, thus changing the zone of possible agreement. An equilibrium analysis is impractical if the situation, itself, is subject to modifications.

2.2.3 Elements of negotiation analysis

According to Sebenius (1992, 2002), full negotiation analytic accounts generally consider the following basic elements with respect to the actual and potential parties: the parties’s perceived interests, negotiated issues and positions, alternatives to negotiated agreement, the linked processes of “creating” and “claiming” value, and efforts to “change the game” itself. Accounts that are not exactly identical, but nevertheless highly similar have been presented by Raiffa et al. (2002), Lewicki et al. (1999), and Fisher et al. (1991). Sebenius (ibid.) claims that these basic elements can be found and analyzed in all negotiations, ranging from the simplest bilateral negotiation between monolithic parties to the most complex coalitional interactions; and they must be interpreted for a meaningful negotiation analysis to proceed.

In this study, the basic concepts of negotiation analysis are reviewed in a slightly different order, complemented with some other important

concepts, yet consistent with the content of the aforementioned list. The idea is to separate concepts that constitute the analytic structure of negotiations from the other concepts that refer to behavior (or flow) within that structure, respectively. Structure is, in a sense, the snapshot of a negotiation situation outside of the time dimension; the flow of negotiations refers to the interaction of the structural elements in time.

Concepts, which define the structure, are: parties, interests, issues, options, the best alternatives to negotiated agreements and outcomes. Outcomes can be further broken down to the concepts of contracts, efficiency, fairness and impact. Concepts, which refer to the flow of negotiations – or behavior within the structure – are: the linked processes of “creating” and “claiming” value, efforts to “change the game” itself, and the phase model of negotiations.

2.3 Structure of negotiations

2.3.1 Introduction

This study separates concepts that constitute the analytic structure of negotiations from the concepts, which refer to behavior within that structure, respectively. Structure of negotiations is, in a sense, the snapshot of a negotiation situation outside of the time dimension. Concepts, which define the structure are: parties, interests, issues, options, ideal alternatives to negotiated agreements and outcomes. Outcomes can be further broken down into the concepts of contracts, efficiency, fairness and impact. In the following sections, each of the concepts will be discussed in more detail.

2.3.2 Parties

The crucial first step in negotiation analysis is to map a full set of potentially relevant parties in the context of the decision process (Sebenius 1992). Negotiation analysis is the study of decision-making between two or more individual parties. Negotiation settings are often classified into bilateral and multilateral negotiations with respect to the number of parties involved. In the simplest negotiation, two principals negotiate with each

other and the setting is bilateral. However, contemporary diplomatic and commercial settings are increasingly of the multilateral type, involving three or more parties. Negotiations can also involve external, “third” parties, such as facilitators or mediators, who do not have a direct stake in the negotiation setting. From the perspective of any given party, the analysis typically assumes intelligent, but boundedly rational, self-interest seeking behavior (Sebenius 1992) for all the other parties involved.

Another key distinction in negotiations is between principals and agents. Most negotiations, take place through representatives – agents who are empowered to represent a principal and to develop possible agreements with their counterparts on the other side (Rubin 2002). There are at least three reasons why principals may wish to negotiate through agents: substance knowledge, emotional detachment and tactical flexibility.

First, agents may represent a greater expertise concerning the substantive knowledge of the issues under negotiation, or agents may entail valuable skills related to the negotiation process (Rubin 2002). Second, agents can be chosen due to the emotional detachment they bring to sensitive negotiations. This is an idea, which Fisher et al. (1991) captures in the idiom: separate the people from problem. Negotiations are not influenced by mere economic-legal considerations, but also by multiple socio-psychological concerns (Ring & Van de Ven 1994). Third, agents may confer tactical flexibility, as in pleading lack of authority, when pushed to making concessions (Rubin 2002).

However, the use of agents may introduce problems to the negotiation too. First, the presence of parties such as lawyers, bankers and other agents may complicate an already complex exchange (Cova & Hoskins 1997). Second, introducing agents to a negotiation may create a misalignment of interests, since agents may have interests of their own that may be at odds with those of the principals (Rubin 2002).

Finally, the parties also need not be monolithic; instead, there may be multiple internal factions with very different interests. In more complex

negotiations, an important objective in negotiations is to synchronize external (across the table) negotiations with internal ones (on each side of the table) (Raiffa et al. 2002).

2.3.3 Interests

The purpose of negotiations is to serve the interests of the parties (Fisher et al. 1991). Interests are the measure against which possible agreements are evaluated. In virtually all cases, the first analytic step after identifying the negotiating parties is to probe deeply for interests and separate them from the issues under negotiation, on which positions are taken (Sebenius 1992). The parties' interests can be fully convergent (they value the same outcomes), fully divergent (they value different outcomes) or, most often, somewhere in between.

Negotiation theorists and decision theorists use different terminology for the same idea (Raiffa et al. 2002). For example, Fisher et al. (1991) emphasize the role of interests, but decision analysts talk about objectives (Clemen 1996). It may be helpful to distinguish between basic, fundamental interests and more operational objectives; nevertheless, the idea is to define for each party the criteria with which they evaluate negotiated agreements.

The most powerful interests are basic human needs, such as security, recognition and a sense of identity (Fisher et al. 1991). For a more elaborate classification in the context of negotiations, Lax and Sebenius (1986) distinguish between four sets of interests. First, substantive interests relate to the economical and legal values of the parties. Second, process interests relate to values regarding the manner in which negotiations are conducted. Third, relationship interests are the values connected to the social dimension of the negotiation. Fourth, principle interests relate to ethical, customary and cultural values. It is important to note that in almost all business negotiations, each side will have many interests in addition to monetary concerns (Fisher et al. 1991).

2.3.4 Issues

Where interests are the measure against which possible agreements are evaluated, issues constitute the content of agreements. Negotiators need to decide what needs to be decided. Therefore, each issue under negotiation is basically a decision variable, with two or more possible resolution levels - an issue with only one possible resolution leaves nothing to negotiate about. In the simplest negotiation, there is only one issue to be decided, e.g. price; more complex negotiations may list hundreds of issues.

Moreover, there is no restriction as to what issues are included in or excluded from negotiations. Raiffa et al. (2002) introduce the principle of reciprocal inclusivity, which states that negotiations should include all issues of relevance to all parties. In practice, however, the issues under negotiation are a subject of negotiation in their own right.

Negotiations involve multiple parties cooperating to arrive at a joint decision on a number of issues. This is a fundamental difference between negotiations and games, which involve multiple individuals making separate decisions that interact. Issues need joint decisions, and essentially constitute the interdependency of negotiation situations.

Sometimes literature or practitioners refer to the term “non-negotiable issues”. In negotiation analysis parlance, non-negotiable issues are not really issues to be decided upon, but in fact, fixed and rigid options on certain issues that could have a range of resolutions available from the perspective of some party.

2.3.5 Options

In addition to deciding on the issues to be resolved, negotiators need to determine a set of possible resolutions, called options, for each issue. Ultimately, the task for the negotiators will be to select and commit to a particular option for each of the issues under negotiation. Options are basically the ranges of the decision variables in decision analytic terminology. Like the issues under negotiation, options need not be fixed.

The introduction of new options translates to expanding the range of the decision variables. In fact, negotiation theorists typically recommend inventing new, creative options in the course of negotiations (Fisher et al. 1991, Raiffa et al. 2002).

The term negotiation “position” refers to a situation where a party insists on selecting a particular option for a certain issue. Negotiators are often tempted to focus on positions instead of interests, although the objective of negotiations is to satisfy underlying interests (Fisher et al. 1991). Therefore, a distinction between end values, and means to satisfy end values is important. Similarly, Keeney (1992) argues that the key to effective decision-making is value-focused thinking, in contrast to alternative-focused thinking, which constrains attention to present alternatives.

In negotiation terminology, a distinction is often made between the external alternatives that each party can pursue if the negotiations break down and the internal alternatives that might be jointly negotiated and jointly pursued. The term alternative is reserved for solo choices external to negotiations and the term option for collective choices internal to negotiations (Raiffa et al. 2002).

2.3.6 Best alternatives to negotiated agreement

Parties negotiate in order to better satisfy the complete range of their interests through some jointly determined action than could otherwise be done. (Sebenius 1992). In practically all situations, negotiators have outside alternatives that they can turn to, should they fail to reach an agreement in current negotiations. The Best of the Alternatives to a Negotiated Agreement is denoted by the acronym BATNA (Fisher et al. 1991). This is a game theoretic component underlying every negotiation: a party always has the option of taking unilateral action to pursue payoffs outside of the negotiations (Raiffa 1982). Thus a basic test of a proposed agreement is whether it offers a better payoff than that side’s best

alternative course of action outside of the negotiations (Sebenius 1992). This condition is also known as individual rationality (Young 1991).

The payoff of each player's BATNA, therefore, places a lower priority on the payoff that the party must realize from a negotiated settlement. Taken together, these minimum payoffs define the disagreement point, an equivalent of the non-cooperative Nash equilibrium concept (Raiffa et al. 2002). The region of agreements beyond each party's BATNA, in the direction of increasing payoffs, delineates the agreements that are individually rational for both parties.

Alternatives to negotiated agreement also play a tactical role. The more favorable alternative courses of action negotiators have, the smaller the need for the negotiation and the higher the standard of value that negotiators can expect from any proposed agreement (Sebenius 1992). Research shows that negotiators with more attractive BATNA's capture a greater share of the negotiation zone (Chen, Mannix, Okumura 2003). Therefore, maneuvering "away from the table" can also strongly affect negotiated outcomes, even more than the strategies employed "at the table." Searching for a better price or an alternative supplier are examples of developing alternatives away from the negotiation table.

2.3.7 Outcomes

2.3.7.1 Contract

The ultimate aim of negotiations is to attain favorable outcomes (Underdal 2002). The fixing of an option for each of the issues is combined to create a contract, which determines the payoff to each party as measured by the degree to which the contract satisfies the interests of the party. The set of all payoff combinations associated with the various possible agreements is called the contract set. The number of possible contracts is the product of the number of resolutions for each issue. Under standard assumptions about the players' payoff, or utility, functions, the contract set is convex, i.e. bowed outward (Young 1991).

Important concepts related to a contract include: feasibility, the zone of possible agreement, surplus, potential, domination, and efficiency. A contract is said to be feasible if it is individually rational for each party, that is, it assigns for each party a payoff that is at least as good as that party's BATNA. The set of feasible contracts is called the zone of possible agreement (ZOPA). For any contract, the surplus to a party is the difference between the payoffs associated with that contract and the party's BATNA. The concept of potential refers to the maximum surplus a party can receive, associated with a contract, where the other parties' surpluses are zero, i.e. their payoffs are driven to their BATNA levels. A contract is dominated if there is another contract that leaves none of the parties worse off and is preferred by at least one party. The efficient boundary consists of the complete set of non-dominated contracts. A contract is thus efficient if all potential gains are realized. In other words, the payoffs to any single party cannot be unilaterally improved without worsening the payoffs to some other party.

2.3.7.2 Fairness

Fairness is an important concept in negotiations, but somewhat more challenging to define than the previous concepts. Fairness is concerned with the problem of selecting an equitable contract that all parties are willing to commit to. Fairness is a concept usually not included in economical analysis; yet, it is present in most real-world settings. For example, people customarily discuss the outcome of labor negotiations, divorce suits and even business deals in terms of fairness or unfairness to the parties concerned (Young 1991). Experienced negotiators often frame their arguments in terms of fair share, such as precedents and principles, customary procedure, splitting the difference, reciprocity and so on (Underdal 2002).

The set of feasible contracts consists of multiple possible contracts; and even focusing the selection on the set of efficient contracts typically leaves many possible agreements. It is reasonable to assume that negotiators seek

to achieve efficient contracts, but it is also realistic to assume that the parties are concerned with a fair distribution of net benefits (Underdal 2002). For example, a contract, which realizes all the potential for one side, but leaves another party indifferent between his or her BATNA and the proposed contract, is efficient, but hardly fair and may consequently turn out indurable (Young 1991).

In a similar vein, in an exposition of interorganizational cooperation Ring & Van de Ven (1994) argue that efficiency and equity are essential conditions for cooperative interorganizational relationships to emerge and be sustained. They define efficiency as a condition, where the parties can achieve better payoffs through cooperation than through unilateral action. Essentially, they refer to what is understood as individual rationality in this study. That is, all feasible contracts are efficient, whereas in this study the concept of efficiency is reserved for feasible, non-dominated contracts.

Ring & Van de Ven (Ibid.) define equity as fair sharing, as perceived by the parties. In their definition, equity does not mean equal amounts; instead, reciprocity and proportional sharing of benefits. In this study the proportional sharing of benefits can be understood with respect to the concept of potential. To review, the concept of potential refers to the maximum surplus a party can receive, associated with a contract, where the other parties' payoffs are driven to their BATNA levels. It is thus possible to examine the proportion of potential a contract assigns to each of the parties. A fair sharing would then refer to a contract that gives each party a similar proportion of their potential.

Literature describes many other approaches to fairness in negotiations, but they all refer to the same idea, the problem of picking an equitable contract from multiple alternatives. According to Young (1991), there are two basic approaches to determine a fair outcome: fairness standard and a fair procedure.

The specific fairness standards that are applicable in a given situation vary widely from one class of negotiation to another. In wage negotiations it

would be normal to tie wage increase to industry norm; in sharing the profits of joint ventures, it would be natural to allocate rewards in proportion to some measure of contribution, e.g. investment (Young 1991). In strictly analytic settings, it is possible to employ various fairness concepts, such as the maximum criterion, the mid-mid criterion, the Maimonides solution, or the cooperative Nash equilibrium (Raiffa et al. 2002). As a general remark of these solutions, it is worthwhile to note that they all basically result in an agreement in the “middle” region of the efficient frontier.

The alternative to fairness standards is to rely on a fairness procedure. For example, when two children must share a piece of cake, it is customary for one to divide it in to two pieces and for the other to get first choice; or the children might toss a coin to randomly determine allocation. A fairness procedure may also involve the use of a third party, such as an arbitrator, to whom the negotiating parties turn to for determining a fair outcome. Examples of formalized arbitration procedures include the combined arbitration, the two-stage final offer arbitration and the multi-stage final offer arbitration (Brams, Kilgour & Merrill III 1991).

There are multiple reasons for involving considerations of fairness in negotiations. They help focus negotiations by narrowing the range of possible agreements (Young 1991). Fairness considerations also enhance the durability of contracts (ibid.). A further benefit is that standards of fairness relieve bargainers of responsibility for having given in. It converts what might otherwise degenerate into a contest of wills into a principled or objective solution that can be justified – both to the negotiators and to their constituents (Fisher et al. 1991).

2.3.7.3 Impact

Finally, an important distinction related to outcomes is between expected payoffs, i.e. the contract, and actual payoffs, i.e. the impact (Underdal 2002). The signing of a contract, or in other words the joint selection and commitment to a complete course of action specifies the rights and

obligations of each party, with associated payoffs. It is important to note, however, that the payoffs at the time of the signing of the contract are expected payoffs, and are likely to be different from the actual payoffs resulting from implementing the jointly selected course of action.

The actual payoffs of a contract can be different for at least four reasons, arising essentially from the inclusion of the time dimension. The first reason is uncertainty regarding the future situation to which an agreement is applied. A considerable amount of uncertainty pertains to, for example, contracts fixing the price and scope of long-term transactions. Although contracts may embody contingencies such as future price fluctuations, most contracts are incomplete in the sense that they do not specify a response to all possible disturbances that may arise in the implementation of the chosen course of action (Underdal 2002).

Second, parties may adapt their resources in the course of implementation, thus affecting the payoffs. For example, a party may improve its processes required for implementing the contract from the expectations at the time of the signing of the contract, which may result in decreased costs, or conversely, increased payoffs (Underdal 2002).

Third, in some cases the sheer complexity of the cooperative arrangement, the number of variables and their interdependencies, may be such that no actor can predict the aggregate future impact with great precision and confidence (Winham 1977).

Fourth, even when the consequences can be predicted, the evaluation criteria, the interests of the parties themselves may change over time (Ikle 1964).

2.4 Flow of negotiations

2.4.1 Introduction

This study separates concepts that constitute the analytic structure of negotiations from the concepts, which refer to behavior within that

structure, respectively. The flow of negotiations is the interaction of the structural elements in time. Concepts, which refer to the flow of negotiations, i.e. behavior within the structure are the linked processes of “creating” and “claiming” value; efforts to “change the game” itself; and the phase model of negotiations. In the following sections, each of these will be discussed in more depth.

2.4.2 Behavior of creating and claiming value

As discussed earlier in this chapter, most negotiations actually present a tension between creating joint value, i.e. increasing the payoffs to all parties, and claiming individual value, i.e. increasing the payoffs to a single party unilaterally, often referred to as the “negotiators dilemma” (Raiffa et al. 2002). Many negotiation approaches naively ignore this tension by simply advocating either a win-win or win-lose philosophy (Sebenius 1992). Equipped with the basic concepts of negotiation analysis discussed so far, it is possible to elaborate on this subject. The elaboration begins with the extreme case of purely distributive (zero-sum game) negotiations.

In a purely distributive negotiation, the relationship between the payoffs to each of the parties is strictly negative, such as in bargaining the price of a used car. The zone of possible agreement collapses to a diagonal frontier, which holds out, what can be termed as the distributive potential. In a purely distributive negotiation, only claiming behavior is possible. Increasing the payoffs to one side necessitates an equal decrease in the payoffs to the other side. Several broad classes of tactics used for claiming value have been explored (Schelling 1960, Raiffa 1982, Lax & Sebenius 1986).

In an integrative bargain (plus-sum game), the payoffs to the parties do not have a strictly negative correspondence, such as in negotiating the terms of a joint venture. The zone of possible agreement includes contracts, which are not placed on a diagonal frontier, which means that the zone of possible agreement holds out integrative potential. Where integrative

potential exists, searching for joint gains is possible, i.e. the payoffs to one or both sides can be improved without weakening the payoffs to any party. The principles and approaches used for creating value have been explored by several authors, and include principled negotiation (Fisher et al. 1991), single negotiation text (SNT) (Raiffa 1982), the method of jointly improving direction (Ehtamo, Kettunen & Hämäläinen 2001), and integrative negotiation strategy (Lewicki et al. 1999).

The existence of integrative potential arises from three possible sources (Sebenius 2002). First, apart from pure shared interests, the negotiating parties may simply want the same settlement on some issues. Second, where economies of scale exist, agreement among negotiators can create joint gains. Third, though negotiators commonly think that differences divide people, differences are actually the main source of integrative potential. Differences in preferences related to any of the negotiated issues or for example time, risk attitude, technical capabilities, market access, tax status, and valuations of tradable goods create more opportunities for joint gains.

At this point it is possible to also clarify the idea of win-win and win-lose negotiations. Even in a purely distributive bargain, if a contract is better than each party's BATNA, the contract is essentially a win-win solution, i.e. each party's surplus is positive – none of the parties really loses in the deal, although one party may claim a larger share of the distributive potential. Likewise, in integrative negotiations, the acceptance of a contract beyond each party's BATNA presupposes a positive surplus – and any contract is again essentially a win-win solution. A contract beyond one party's BATNA would imply a win-lose contract, and the observation that “no contract is the best option” for that party.

In distributive bargains the behavior of the parties are reduced to mere claiming, in other words, win-lose action. On the other hand, where integrative potential exists, the parties can jointly search, identify and select contracts, which improve the payoffs jointly with reference to any tentative agreement or negotiation text. When such action characterizes

negotiations, the negotiations take on the notion of a win-win process. It is therefore reasonable to distinguish between win-win agreements (any feasible contract beyond the parties BATNAs) and win-win behavior (joint improvement of a contract).

Negotiation analysis recognizes claiming and creating as two fundamental classes of negotiation behavior. However, some authors distinguish three general negotiation behavioral postures for moving toward agreement (Rubin, Pruitt & Kim 1994), while other authors recognize four different behaviors, or “strategies” (Lewicki et al. 1999). Yet, these strategies can easily be interpreted from the perspective of negotiation analysis. Table 1 introduces four distinctive behaviors. The first behavior is contending, the second problem solving, the third yielding, and the fourth avoidance.

Table 1 Negotiation strategies

Strategy	Description
Contending	Negotiators pursue their interests by persuading the other party to concede. This refers to claiming in the negotiation analytic parlance.
Problem-Solving	Negotiators try to identify options that satisfy both parties’ interests. This refers to what is termed creating behavior in negotiation analysis.
Yielding	Negotiators diminish their aspirations, concede and give in; in other words “negative” claiming.
Avoidance	Negotiators simply do not engage in negotiations or disengage from them. The strategy can be understood and explained with reference to an attractive BATNA in negotiation analysis.

The choice of a negotiation behavior is not completely arbitrary. Distributive negotiation settings enable only claiming, yielding or avoidance. Whereas in integrative settings creating, or synonymously

problem solving is possible, but claiming, yielding and avoidance remain available to the negotiators.

The chosen posture and consequent behavior influence the construction of the perceived ZOPA (Raiffa et al. 2002, Sebenius 2002). For example, competitive moves to claim value individually often drive out moves to create it jointly (Sebenius 1992). Tough behavior may hamper efforts to identify joint gains, and therefore negotiators cannot simply alternate between creating and claiming action. Creating and claiming behavior are not separable phenomena (or “strategies”) in reality (Schelling 1960). Negotiators need to manage the tension between creating and claiming behavior (Raiffa et al. 2002).

Negotiators need to also adjust their negotiation stance with respect to their counterparts. In general, reciprocal open and truthful sharing of information and creativity help the parties identify integrative potential (Pruitt 1981, Thompson 1991). Yet, if only one party is open and forthcoming, the other party can opportunistically take advantage of this and claim a greater share of value (Sebenius 2002). If both parties take tough and even hostile stances, the negotiations are characterized by claiming behavior, the parties are unlikely to identify integrative potential and fail to realize potential gains (Young 1991).

This highlights the importance of trust in negotiations. In the presence of trust, the parties assume absence of opportunistic behavior by the other parties and can confide more information, resulting in better agreements, and consequently in even more trust (Figure 1). The relationship between trust, sharing of information and the quality of agreements is essentially positive and cyclical (Ertel 1999).

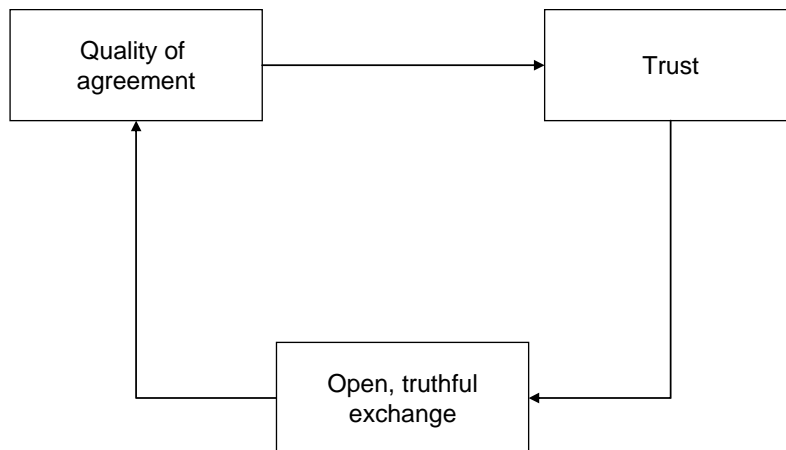


Figure 1 Positive relationship between trust, communication and agreements in negotiations

2.4.3 Efforts to change the game

The framework of negotiation as represented by the concepts discussed so far is, of course, an idealization of actual negotiation situations. Negotiation is not simply creating and claiming within a fixed configuration of the elements of negotiation. The behavioral dynamics of claiming and creating influence the construction of the perceived ZOPA, but the parties can also take deliberate purposive action to change the negotiation game (Sebenius 2002). Therefore, an important form of behavior and analysis in negotiations is to change the ZOPA, or at least to change the way in which other players perceive it (Sebenius 1992, 2002). The elements of the interaction may evolve or be intentionally changed.

Typically, the parties do not know each other's payoffs with any reasonable degree of accuracy, and most often negotiators are not even sure of their own (Sebenius 2002). Moreover, they do not know each other's, and at the same time they may be hard at working trying to improve their own. In general each party has its own perceptions of the location of the disagreement point and the shape of the utility frontier (Young 1991).

In other words, the game is incompletely determined, so the parties need not limit themselves to creating and claiming within a fixed configuration

of the elements of negotiation; instead, they can take purposive action to change them. The parties typically seek to learn about their own and the other side's situation and what is jointly possible; to advantageously influence their own or the others', actual or perceived BATNA; and to favorably change the parties, issues or options under negotiation. The most important intentional efforts to change the game entail: improvement of own BATNA, worsening of other's BATNA, credible commitment to a negotiation position and introduction of mutually beneficial options.

An improvement in a party's BATNA changes the ZOPA in a way more favorable to that side (Raiffa et al. 2002): the minimum a party can expect from the negotiations at hand increases. If the other party's BATNA worsens, again the ZOPA changes in favor of the party: the minimum the counterpart can expect from the negotiations decreases. A successful commitment to a negotiation position changes the BATNA by cutting off an undesirable part of the ZOPA for the party who makes it (Sebenius 1992). Introduction of a new, mutually beneficial option causes the integrative potential to increase (Axelrod 1970): a seemingly distributive negotiation can be transformed into an integrative one. In general, when parties, interests, issues, options, BATNAs, or perceptions of any of them vary, the ZOPA will be transformed.

2.4.4 Phase model of negotiations

Although the negotiation analytic approach is consistent and complete as such, for the purposes of this study, a conceptual model of the negotiation process is needed. To be more specific, the objective is to frame the project sales and delivery process in terms of negotiation, which benefits from a model of the process of negotiations.

The negotiation analysis approach as outlined by Sebenius (1992) does not acknowledge any generic and sequential phases in the negotiation process. Yet, several researchers who have studied the flow of negotiations over time have confirmed that negotiation, like communication in problem-solving groups and in other forms of ritualistic social interaction proceeds

through distinct phases or stages (Douglas 1962, Morley & Stephenson 1997). Holmes (1992) states that phase models provide a narrative explanation of negotiation processes; that is, they identify sequences of events that constitute the pattern of negotiation.

The fundamental idea of phase models of decision-making is that the elements of decisions are not assumed to be present and fixed, but conceived in time (Noorderhaven 1995). This idea is in alignment with the distinctive features of the negotiation analysis approach; and essentially recognized in the element of “efforts to change the game.” It therefore seems reasonable to assume that a phase model for organizing the study of negotiations is consistent with the negotiation analysis approach. The purpose of the phase model is to describe the general pattern with which the elements (e.g. interests, issues, BATNAs) of negotiation analysis are constructed.

Lewicki et al. (1999) come to the conclusion that the various models of negotiation fit nicely into a general structure of three phases, or stages: initiation, problem-solving and resolution. In a treatise of the theory and practice of diplomacy, Berridge (2002) adopts a similar, three-stage model: pre-negotiations, around-the-table negotiations and packaging agreements.

The origin of a three stage model can be traced to Simon (1960), who describes three stages of decision-making in his early and highly influential work “The new science of management decision:” intelligence, design and choice. In the intelligence phase, the need to make a decision is recognized, intelligence is gathered, stakeholders are identified and the general decision problem definition is formulated. In the design phase objectives are set, options are generated and options are evaluated against the outcomes they produce. In the choice phase, a choice is made, the choice is implemented and the implementation process is controlled. This conceptual model of three sequential phases (Figure 2) is generic and therefore applicable irrelevant of whether decision-making is concerned with individual; interactive, but separate; or joint decisions (negotiations).

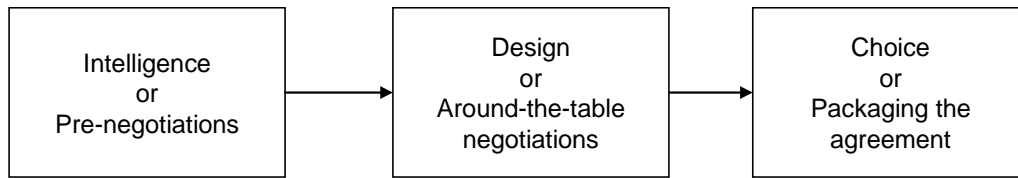


Figure 2 General, three-stage model of negotiation

The elements of negotiation analysis can be related to the three-stage model as follows (Figure 2):

In the intelligence, or pre-negotiations phase, the need to negotiate is recognized; parties are identified; intelligence on the interests and BATNAs of both own and the other parties are gathered; and the general issues under negotiation are defined.

In the design, or around the table phase, the parties define their own interests; determine the specific issues to be negotiated and a set of options for each issue; and evaluate the different combinations of options (contracts) with respect to their interests.

In the choice, or packaging the agreement phase, the parties jointly select and commit to a common negotiation contract; and finally implement and control the implementation of the contract.

This model is, of course an idealization of reality, and as reviewed in the behavioral elements of “claiming and creating” as well as, “efforts to change the game,” the elements of the interaction are path dependent and they may evolve or be intentionally changed throughout the process.

2.5 Summary of negotiation analysis

The concepts of the approach form a logically consistent, complete framework oriented around the perceptions of the zone of possible agreement, ZOPA (Sebenius 2002). The general representation below (Figure 3) can visually summarize the framework of negotiation analysis, with respect to the simplest negotiation between two parties, A and B.

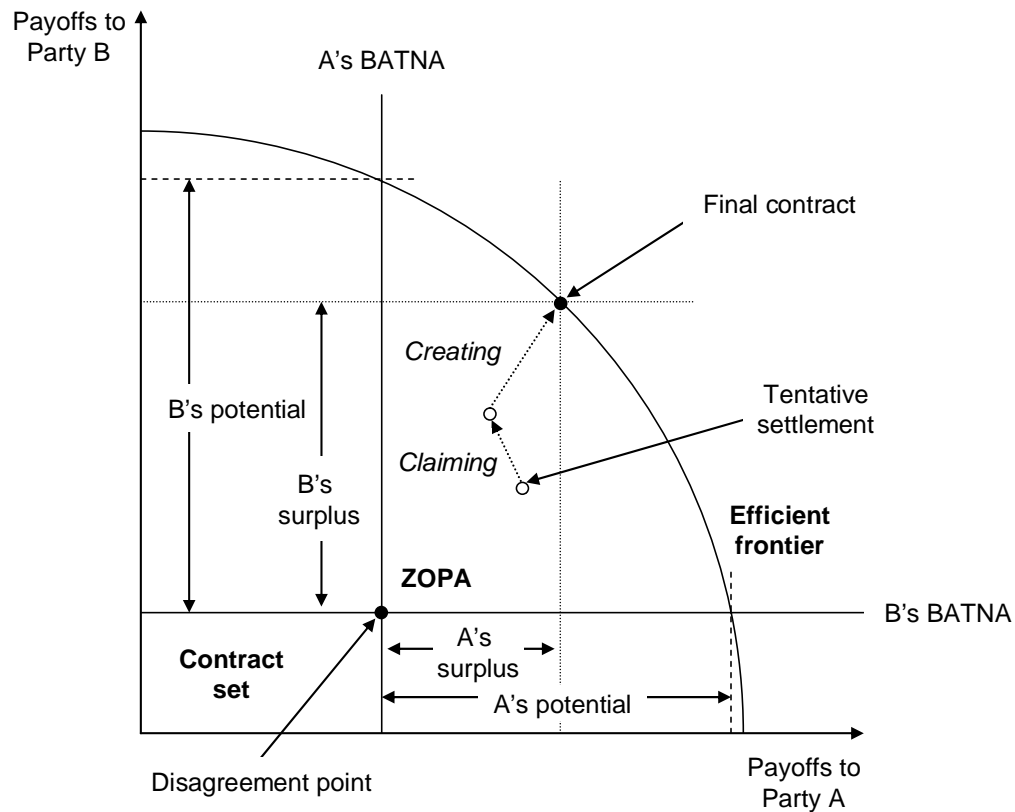


Figure 3 Visual summary of the concepts of negotiation analysis

Negotiations involve a set of two or more parties, which determine the axes in Figure 3. The parties are bound interdependent by the issues under negotiation. Each of the issues has two or more options. The fixing of an option for each of the issues combines into a contract, which is evaluated with respect to the parties' interests to produce a measure of payoff for each of the parties. The set of payoffs associated with all possible combinations of agreements represents the contract set available. Best alternatives to negotiated agreements (BATNAs) represent the constraints, which together with the contract set define the zone of possible agreement (ZOPA). The intersection of the parties' BATNAs represents the payoffs of failing to reach agreement. The efficient frontier represents the set of contracts that cannot be improved from the standpoint of one party without harming another. Within this configuration, the process of negotiation consists of creating and claiming behavior, and efforts to change the game,

itself. Figure 3 illustrates how sequential claiming and creating activities result in a final contract, by starting from a point of tentative settlement.

Negotiation, like other forms of ritualistic social interaction proceeds through distinct phases or stages, which constitute a pattern of negotiation. The construction of the ZOPA and proceeding of negotiations can be captured in a phase model with three distinct phases: intelligence (or pre-negotiations), design (or around the table), and choice (or packaging the agreement) phase. In a phase model the elements of negotiations are not assumed to be present and fixed, but are conceived and are path dependent in time. It is also important to note that the construction of a quantitative model of the ZOPA may be impossible for sophisticated real-world negotiators even under the assumption of perfectly cooperative behavior.

However, a conceptual understanding of negotiation as a phenomenon, and understanding of related conscious or unconscious managerial practices is important. For creating such understanding, the clarity of concepts and a structured model is important, to which Figure 3 attempts to contribute. A qualitative understanding of the structure of negotiations may guide the negotiators in crafting better agreements (Raiffa et al. 2002). Table 2 verbally summarizes the main concepts of negotiation analysis.

Table 2 Description of the main concepts of negotiation analysis

Concept	Description
Parties	Parties are either principals who negotiate with each other or their representatives. The analysis typically assumes intelligent, but boundedly rational, self-interest seeking behavior by the other parties.
Interests	Interests are the measure against which possible agreements are evaluated. Negotiators need to identify all relevant criteria, with which to evaluate agreements.
Issues	Issues constitute the content of agreements. Negotiators need to decide what needs to be decided. Each issue under negotiation is basically a decision variable.

Options	Options represent possible resolutions for each issue. Negotiators need to determine a set of possible resolutions, called options, for each issue. Options are basically the ranges of the decision variables.
BATNA	Negotiators have outside alternatives that they can turn to, should they fail to reach an agreement in current negotiations. A basic test of a proposed agreement is whether it offers a better payoff than that side's best alternative course of action (BATNA) outside the negotiation.
Contract	Ultimately, the task for the negotiators will be to select and commit to a particular option for each of the issues under negotiation, which combines into a contract. A contract determines a payoff to each party as measured by the degree the contract satisfies the interests of the parties.
Fairness	Fairness is concerned with the problem of selecting an equitable contract from multiple alternatives, to which all parties are willing to commit. There are two basic approaches to determine a fair outcome: fairness standard and a fair procedure.
Impact	The actual payoffs, the impact, often deviate from those implied by the expected payoffs, the contract.
Claiming and creating behavior	Most negotiations present a tension between creating joint value, i.e. increasing the payoffs to all parties, and claiming individual value, i.e. increasing the payoffs to a single party unilaterally.
Efforts to change the game	The elements of the negotiation may evolve or be intentionally changed. Each side typically seeks to learn about its own and the other side's situation and what is jointly possible; to advantageously influence its own or the other's, actual or perceived BATNA; and to favorably change the parties, issues or options under negotiation.

3 Project negotiations

3.1 Introduction

Project negotiations extend far beyond the tactical considerations associated with competitive bidding (Cova, Mazet & Salle 1994), and it is widely admitted that parties face great difficulties in negotiating major projects (Cova et al. 2002). Essentially, the client and the contractor face the problem of identifying and distributing potential payoffs offered by joint behavior. Even when a project is awarded through a call for tender, the client and contractor need to make joint decisions in negotiating important details of the deal and, often, throughout the project delivery process. For a project to realize, a significant amount of joint decision-making needs to take place.

There is a growing body of research focusing on projects as a distinct type of business. An explication of the distinctive features of project business may provide a more structured view as to why negotiation is so important in the project context and why project negotiations are typically challenging. For this purpose, it is helpful to first distinguish between two disciplines in project literature: project management and project marketing.

The project management literature defines a project as a temporary organization, to which resources are assigned to undertake a unique, novel and transient endeavor, managing the inherent uncertainty and need for integration in order to deliver beneficial objectives of change (Turner & Müller 2003). In the project marketing approach (Cova et al. 2002), a project is defined as a complex business transaction covering a package of products, services and work, specifically designed to create capital assets that produce benefits for a buyer over an extended period of time. The project marketing approach focuses on project business more broadly as interaction between clients and contractors, emphasizing the concept of a transaction (Cova & Salle 2004).

The broader focus of the project marketing approach on project business as interaction between clients and contractors and the implicit inclusion of the

project management term make the project marketing discipline more suitable for explicating the distinctive features of project business from a negotiation perspective. However, in this study the term project marketing is used in a more constrained sense to denote the sales and delivery of a single project. The main characteristics which distinguish project marketing from other types of business-to-business marketing, and simultaneously reveal some of the distinctive features of project business in general are captured in the D-U-C model (Cova & Ghauri 1996, Skaates & Tikkanen 2003), where D stands for *discontinuity*, U for *uniqueness* and C for *complexity*.

3.2 Features of project negotiations

The nature of each distinctive features of project business, discontinuity, uniqueness and complexity, will be discussed in more detail in the following. Next, the implications of each of the three characteristics on negotiations are discussed.

Discontinuity refers to the nature of economic relations between clients and their contractors (Cova & Hoskins 1997). The sales and delivery of a project is essentially a discrete, although an inter-temporal phenomenon. Even if a contractor experiences a relatively continuous demand on an aggregate level, project transactions between a particular client and a contractor are episodic, and therefore their economic relationships are best characterized as discontinuous. Projects are conceived with the intention of delivering one-off transformational changes, which cannot be achieved through improvements in the existing operations (Cova & Hoskins 1997). Contractors are, in fact, faced with the problem of maintaining purposeful contacts with potential customers during extended periods of economic inactivity, with the aim of being called for negotiations if and when future projects materialize (Hadjikhani 1996).

Uniqueness in project business means that each project may be characterized as an isolated market for goods and services (Cova & Hoskins 1997). Projects are complex transactions involving products and

services, which are often delivered on an engineered-to-order basis. The final deliverable generally involves major, client-specific, tailored or customized features. Even the simplest projects involve such features, leading to the notion of “standardized prototypes.” Moreover, even if the object of exchange, the total solution delivered to a client is standardized, the process of completing the transaction may involve, for example, novel socio-political features.

Complexity in selling and delivering projects refers primarily to the number of actors involved throughout the acquisition and delivery process (Cova & Ghauri 1996). Beside the multiple representatives on the sides of the client and the contractor, many additional stakeholders may be involved in the definition and implementation of a project. These stakeholders may include government departments, trade unions, non-governmental action groups, subcontractors, financiers, and legislative bodies. Bringing together the necessary resources from within the client’s and contractor’s network of external partners adds to the complexity of each transaction (Cova & Hoskins 1997).

The discontinuous, unique and complex nature of projects contributes to the challenge and importance of negotiations in project business. In the following, the implications of each of the three characteristics on negotiations are introduced.

The discontinuity feature may imply that a project delivery is often considered as a single-shot delivery, followed by a long ‘sleeping time’ until the contractor has an opportunity to deliver another project to the same customer. Thus, the discontinuity feature implies that the client and contractor cannot rely on stable processes of interaction. Instead, intense negotiations in the project development period determine to a great extent the economic success of either party. And although the parties are tempted to hammer out advantageous terms, or to engage in opportunistic behavior (take advantage of the other party when circumstances permit) to increase the payoffs on any single project, they need to balance short term payoffs with long term gains. Alajoutsijärvi (1996) has shown that individual

projects should be understood with reference to a longer time horizon, in which multiple projects as well as periods of inactivity take place. Håkansson and Snehota (1989) crystallize this observation in the remark “no business is an island.”

Moreover, although projects should be understood with reference to a longer time horizon, it is important to also realize that they are not transactional market events (Skaates & Tikkanen 2003). Instead, projects are economic exchanges that proceed in time. Consequently, negotiations even within a single project are not generally one-off events, but recurring joint decision-making. The negotiation of the project contract is not really negotiation of the final contract, since renegotiations, initiated by, for example variation orders are often necessary throughout the project sales and delivery process. In addition, the inherently uncertain nature of the future exposes the project delivery system to numerous possible disturbances, which may influence negotiated payoffs and trigger renegotiations.

The uniqueness of each project means that the final deliverable is not a standardized good, which the parties have complete information about. Projects may include hundreds of issues to be negotiated, multiple options for each issue, resulting in an enormous amount of possible contracts. Negotiations are needed to uncover the possible contracts, the fundamental interests of the client, the terms of the agreement, and settle disagreements, which may arise. The combination of parties, interests, issues to be negotiated, possible resolutions for each issue, the parties BATNAs and behavioral dynamics are essentially unique for each project. The implication is that in the absence of routine terms, the ability to influence outcomes through negotiations increases significantly.

The complexity, or the number of stakeholders, means that extensive negotiations are needed to distribute payoffs and ensure commitment to the project on part of all relevant actors. The more parties are involved in the negotiation, the more complex the negotiations usually are. More specifically, complexity is increased, because new parties usually represent

new interests to be satisfied, new issues to be negotiated, new ranges of options, and new behavioral dynamics.

3.3 Elements of project negotiations

Although each project is essentially unique, project negotiations have certain common, basic characteristics as well. For this purpose it is useful to refer to the project management literature, where a standard claim is that each project should have certain basic objectives, which may, however, differ in their relative importance. The three basic objectives, which are said to exist in every project, are scope, time and cost. The first project objective, scope, is the sum of products, services and immaterial value-adding outcomes produced in the project. The time objective can be understood as schedule requirements for the project deliverables. The cost objective refers to the resources needed to produce and reward the production of the project deliverable, usually measured in monetary terms. Together, these three elements constitute the essential content of project agreements (Figure 4).

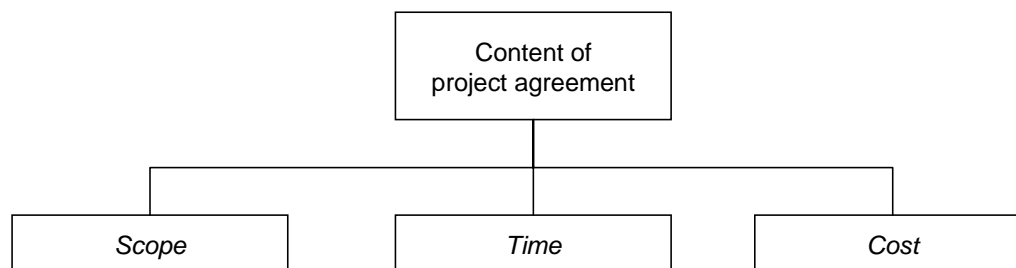


Figure 4 Basic content of project agreements

From the perspective of negotiation, these three general elements are actually basic negotiable issues in projects. The scope, cost and time are decision variables on which the parties negotiate a level of resolution from a range of alternatives. Only after the parties have come to an agreement on the particular value of scope, time and cost, these elements become objectives, against which performance can be operationally measured.

It should, however, be noted that these objectives are not synonymous with the underlying interests of the parties as discussed earlier. To maintain

clarity of definition, scope, cost and time are issues under negotiation and the fixing of an option for each of the three issues combines into an agreement, which is evaluated against the profound interests of the parties.

By accepting the standard profit maximization hypothesis of firms, profound client interests are best understood from an investment perspective, which takes into account broad, long-term considerations. A project's worth for a client is the cost of investment plus the total value the investment is able to generate during its life cycle, usually measured as the net present value of all related cash flows. However, in maximizing profits, a client needs to consider many additional aspects such as the balancing of a portfolio of multiple projects, or a problematic dependency on any particular suppliers. Actually, the basic interests of the focal parties, the client and the contractor are likely to be more varied than the basic issues under negotiation in projects.

So far as contractors are primarily interested in maximizing profit, the main interest of a contractor tends to be a consideration of the project's short-term value, which is basically its price minus the total costs of sales and delivery. However, contractors may have less obvious interests as well. For example, a contractor may be interested in exploiting certain projects for long-term product development, testing or piloting purposes.

The typical case is one where the delivery of a customized solution to a particular customer initiates and finances a process, the outcome of which is a product, which can be delivered as a standard solution to other customers too. In other instances, a contractor may be more interested in securing a more stable long-term business, such as operation and maintenance works, by delivering a particular project facility. Finally, the reference and associated brand value of delivering a project to a certain customer may outweigh the short-term gains of high project margins. Project industries are, in fact, experiencing the emergence of composite measures of valuation that explicitly acknowledge multiple interests.

3.4 Phases of project negotiations

Each project sales and delivery passes through a relatively similar process (Cova & Holstius 1993). Seen from the project selling firm's point of view, there are six generic and sequential phases (Table 3). In project marketing literature, these phases are argued to constitute a project marketing cycle. This cycle is also said to be self-renewing (Holstius 1987, Cova & Holstius 1993):

Table 3 Project phases from project marketing perspective

Phase	Description
Search	Scanning the environment to identify project opportunities and relevant industry developments.
Preparation	Undertaking a feasibility study; exerting influence on the buyer and other relevant parties in order to get information and obtain tender specifications favorable to the contractor; evaluating the competitive situation.
Bidding	Preparing the bidding documents after receiving the invitation to bid, making decision concerning price and the use of resources.
Negotiation	Starts when the seller makes the preliminary offer for the project; ends the signing of a contract.
Implementation	Delivering and supervising the project; identifying and resolving of any problems, which may arise; training buyer's personnel; possibly creating after-sales systems.
Transition	Evaluating the project as a whole; building up knowledge for future offerings; possibly supplying additional services to the buyer.

The project phase model in table 3 can be extended to include the client perspective as well. Each project can, in fact, be conceived as two parallel projects: from the client's perspective as a procurement and investment project; and from the contractor's perspective as a sales and delivery project. Figure 5 extends the project phase model of table 3 by showing

simultaneous phase activities in both client's and contractor's organization, and interaction between the activities with important joint activities. At different phases, each party faces the problem of selection and commitment to a certain course of action. For example, in the preparation phase a contractor needs to select preferred projects to which the contractor commits through an internal agreement or an external registration for bidding. The arrows represent key inputs from preceding decisions to each following decision problem. An important issue to recognize is that with the proceeding of time the parties' "degrees of freedom" decrease. By following a certain courses of action, the parties also narrow down their ability to influence the final result at later stages. For example, once a bid has been submitted, its terms are legally binding for the contractor.

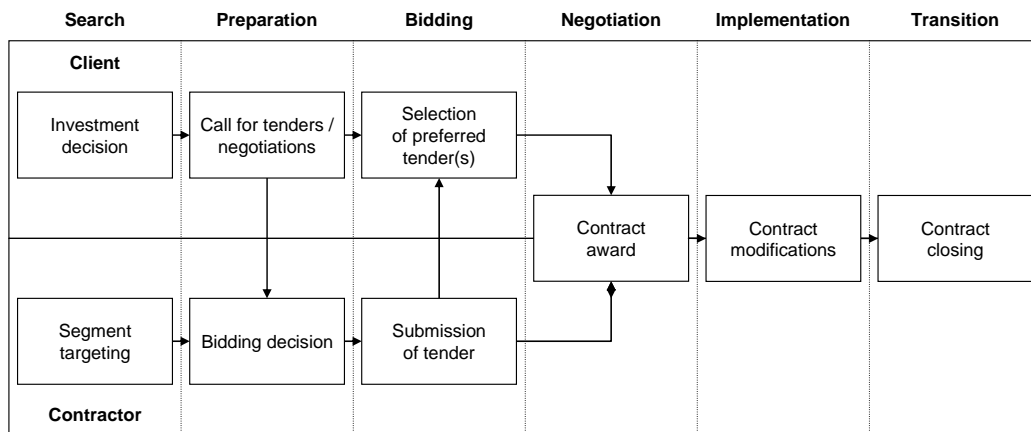


Figure 5 Main decisions of the client and the contractor in project phases

In the first three stages (the search, preparation and bidding phases) the decisions taken by the counterparts are to a major extent individual, and represent one-sided commitment. For example, the contractor can individually and freely determine, whether he submits a bid, and if so, the document is one-sided. Whereas from stage four (negotiation), the decisions the counterparts take are essentially joint decisions with two-sided commitments. The signing of the final contract requires both sides' approval, and subsequent modifications to the contract require the approval of both parties. The negotiation and decision-making content of

each phase of the project (Figure 5) and the interaction between the client and the contractor is discussed in the following.

In the first phase, the client ideally first selects the most productive uses for the company's resources. Thus, the first decision is selection of a particular project that implies a superior return on investment compared to alternative uses. The next task is to select the procurement method, including the object of procurement and the set of counterparts to be involved in later stages. The outcome of this stage is the call for tenders or negotiations. The third task on the client side is to select the tender or tenders with which to continue detailed negotiations, resulting in the announcement of a winner or preferred bidders.

From the contractor's perspective, the first task, preceding any particular project opportunity is to select the segments or, in some instances, the customers which to target. The result is a more or less explicit sales plan. In the second phase, the contractor being aware of project opportunities selects the preferred projects. The third task is to select the economic, technological and legal terms of the tender and commit to them by submitting the documents to the client.

An interesting further observation of the project phases illustrated in Table 3 and Figure 5 is that the representation is conceptually highly similar to the phase model of negotiation and decision-making in general (Figure 2). This allows us to actually integrate the whole project sales and delivery process with the contents of the negotiation process (Table 4). This also allows the subsequent use of the logic and concepts of negotiation analysis for developing a negotiation-oriented insight into the process of selling and delivering projects.

The negotiation perspective serves well in integrating the client and contractor perspectives. A project is essentially a joint endeavor, where the parties seek higher payoffs through cooperation than they could through unilateral action. Moreover the conception of a continuous negotiation process conforms well to the experiences of contemporary project business

practitioners. Applying the definition of negotiation developed in Chapter 2, a project can be conceived as a process of joint decision-making where two or more parties communicate to select and commit to a common course of action that is superior to unilateral alternatives.

The search and preparation phases essentially refer to the intelligence, or pre-negotiations phase (Table 4)), where the need to negotiate is recognized (scanning the environment to identify project opportunities and relevant industry developments); parties are identified; intelligence on the interests and BATNAs of both own and the other parties are gathered (evaluating the competitive situation); and the general issues under negotiation are defined (exerting influence in order to obtain tender specifications favorable to the contractor).

The bidding and negotiation phases refer to the design, or around the table phase (Table 4), where the parties define their own interests; determine a set of options, for each issue (preparing the bidding documents); and evaluate the different combinations of options (contracts) with respect to their interests (making decisions concerning price and the use of resources).

The implementation and transition phases refer to the choice, or packaging the agreement phase (Table 4), where the parties jointly select (preliminary offer for the project) and commit to a common negotiation contract (signing of a contract); and finally implement and control the implementation of the contract (delivering and supervising the project).

The major difference in the phase models compared in Table 4 is that the project phase positions signing of a contract to the end of the negotiation phase, whereas the negotiation model positions the signing of the contract in the beginning of the next phase, i.e., in the beginning of the implementation of the project. Nevertheless, the focus in this study is on negotiations related to a single project. The first search phase and last transition phase in the project phase model actually refer to the period

between projects, and therefore the phases relating to a single project are defined by the project phases from preparation to implementation.

Although the main idea in this study is that a project can be conceived as a negotiation process, it is important to acknowledge that meaningful negotiations are conducted throughout the whole project lifecycle, i.e. the same pattern takes place at lower levels in all phases of a project. This perspective to negotiations in the project lifecycle emphasizes the role of negotiations as specific micro-processes – or tools – that can be applied locally for specific subjects in various phases of the project. Chapter 4 emphasizes this perspective, while it introduces examples of phase-specific strategies that the client and the contractor could adopt in each phase of a single project.

Table 4 Conceptual comparison of the phase model of negotiation with the phases of selling and delivering a project

Phase of negotiation	Negotiation content	Project phase and its content
Intelligence or Pre-negotiations	The need to negotiate is recognized; parties are identified; intelligence on the interests and BATNAs of both own and the other parties are gathered; and the general issues under negotiation are defined.	Search phase: scanning the environment to identify project opportunities and relevant industry developments.
		Preparation phase: undertaking a feasibility study; exerting influence on the buyer and other relevant parties in order to get information and obtain tender specifications favorable to the contractor; evaluating the competitive situation.
Design or Around the table negotiations	The parties define their own interests; determine a set of options, for each issue; and evaluate the different combinations of options (contracts) with respect to their interests.	Bidding phase: preparing the bidding documents after receiving the invitation to bid, making decision concerning price and the use of resources.
		Negotiation phase: starts when the seller makes the preliminary offer for the project; ends at the signing of a contract.
Choice or Packaging the agreement	The parties jointly select and commit to a common negotiation contract; and finally implement and control the implementation of the contract.	Implementation phase: delivering and supervising the project; identifying and resolving of any problems, which may arise; training buyer's personnel; possibly creating after-sales systems.
		Transition phase: evaluating the project as a whole; building up knowledge for future offerings; possibly supplying additional services to the buyer

3.5 Summary of project negotiations

The project marketing approach focuses on project business broadly as interaction between clients and contractors, emphasizing the concept of a business transaction between these two. This approach is worthwhile for the perspective adopted in this study. Thus, in this study we do not make a distinction between the project marketing process and the project sales and delivery process.

Discontinuity, uniqueness and complexity were introduced as distinctive characteristics for selling and delivering projects. The nature of each of these three characteristics and their implications to project negotiations were introduced. An analysis of the characteristics of project business through the three characteristics of discontinuity, uniqueness and complexity revealed the relevance and complexity of negotiations in the context: projects make it difficult to rely on automated, impersonal market mechanisms to determine the terms of transactions; in the absence of routine terms, the ability to influence outcomes in any particular project through negotiations increases significantly; projects force the parties to balance short-term payoffs with potential gains resulting from future negotiations; projects typically involve recurring negotiation throughout the delivery process; project negotiations typically involve hundreds of issues and numerous spoken and unspoken interests; and finally, project negotiations are often multilateral, involving various independent interest groups or parties.

Seen from the project selling firm's point of view, there are six generic and sequential phases: search, preparation, bidding, negotiation, implementation, and transition. The first search phase and last transition phase in the project phase model actually refer to the period between specific single projects, and therefore the phases relating to a single project are defined by the project phases from preparation to implementation. We extended this project phase model of a contractor to recognize a view towards parallel phases of a client project. Each project can, in fact, be conceived as two parallel projects: from the client's perspective as a

procurement and investment project; and from the contractor's perspective as a sales and delivery project. We integrated these two parallel client and contractor project views by understanding the integrating negotiation activities between the client and the contractor.

At different phases, each party faces the problem of selection and commitment to a certain course of action. During the progress of the project, the parties' "degrees of freedom" decrease. In the first project phases the decisions taken by the counterparts are to a major extent individual, and represent one-sided commitment. In the latter phases of the project the decisions the counterparts take are essentially joint decisions with two-sided commitments.

We provided a conceptual interpretation of integrating the project phases with the sequential phases of the negotiation process. We illustrated that the contents of project phases are analogous to contents of the general phase model of a negotiation. This interpretation emphasizes the fact that we could see the whole project progressing in time as analogous to a significant negotiation, where the major subject under negotiation is detailed in sequential project phases. This allows the subsequent use of the logic and concepts of negotiation analysis for developing negotiation-oriented insight into the process of selling and delivering projects. We also complemented this view with another worthwhile interpretation, meaningful lesser negotiations are conducted throughout the whole project lifecycle, much like a project can be divided into sub-projects. This second perspective to negotiations in the project lifecycle emphasizes the role of negotiations as specific whole micro-processes – or tools – that can be applied locally for specific subjects in various phases of the project.

4 Project negotiation strategies

4.1 Introduction

This chapter illustrates application of the negotiation analysis approach to the four phases of a project, which are specific to any single project. These four project specific phases are preparation, bidding, negotiation, and implementation. The first search phase and last transition phase in the project phase model (Table 3) are excluded as general and non-project specific periods between projects. The framework is used to describe and analyze selected negotiation strategies that the primary project counterparts, the client and the main contractor, may employ with respect to the four phases.

It is important to note that the presentation in this chapter is only meant to give a qualitative example of possible strategies. Therefore the presentation is best characterized as impressionistic, and a more analytically inclined audience may find it too general. Yet, a more precise, quantitative analysis of the strategies is also possible and encouraged. Furthermore, the strategies presented are samples, and other strategies could be derived by further empirical research in specific companies and organizations. Such empirical research could reveal other effective strategies that might be specifically worthwhile for certain business relationships and situations.

In the preparation phase, the project opportunity has been detected, but the decision to bid or negotiate has not been taken. In the bidding phase, the decision to bid has been taken, but the client has not yet chosen the preferred bidder(s). In the negotiation phase, the preferred bidder(s) have been chosen, but the contract has not yet been awarded. In the implementation phase, the contract has been awarded, but the project has not yet been completed.

A single negotiation strategy for the client and the contractor, for each of the phases will be covered. The negotiation strategies, which a client may want to employ in the four phases, are termed: market creation, reverse

auction, bargaining rounds and variation orders, respectively. The negotiation strategies, which a contractor may employ are: project framing, captive pricing, post-settlement modifications and acceptance test, respectively. These sample strategies are illustrated in Table 5 and the strategies will be elaborated in the following sections.

Table 5 Phases specific to a single project, and examples of negotiation strategies available to the client and contractor in each phase, respectively

Phase	Description	Client strategy	Contractor strategy
Preparation	Project opportunity detected; decision to bid not yet taken	Market creation	Project Framing
Bidding	Decision to bid taken; preferred bidder not yet chosen	Competitive sealed bid	Captive pricing
Negotiation	Preferred bidder(s) chosen; contract not yet awarded	Bargaining rounds	Post-settlement modifications
Implementation	Contract awarded; project not yet completed	Variation orders	Acceptance test

4.2 Preparation phase

4.2.1 Client: Market creation

The discontinuity, uniqueness and complexity of a project make it difficult for a client to simply turn to the market for acquiring a total solution. In fact, each project may be characterized as an isolated market for goods and services (Cova & Hoskins 1997). A client often has considerable difficulty in specifying the objectives of a project, let alone, in determining the optimal means for accomplishing those objectives.

The client may therefore want to arouse interest in the project by publicly announcing a project opportunity. In fact, recently more sophisticated clients have started to go the market to satisfy a stated business need, and not fixed project objectives. By simply turning to a single, arbitrary contractor, the client might end up in a poor negotiation position. For example, a single contractor may not be in the optimal position to supply the required solution, or the contractor may take advantage of superior cost information to claim a greater share of the potential payoffs.

It is therefore in the interest of the client to create a market, or more specifically, supply for the particular project. With reference to the negotiation analytic framework, this translates into essentially two concepts: a better BATNA and more integrative potential.

First, a client must, of course, consider alternative ways of using their resources. As a bottom reference to return on resources can be considered the risk-free investment in government bonds. This is, of course, an ultimate reference, but useful in realizing that there are always alternatives available. Basically, each organization, depending on its risk management capability has its own minimum acceptable rate of return that represents a weighted average annualized rate of return it is able to generate on its investment portfolios.

A project's worth for a customer is therefore very basically the cost of investment plus the total value the investment is able to generate, usually measured as the net present value of future cash flows. Whereas, a project's worth to the contractor is basically its price minus the total costs of sales and delivery.

By ensuring the participation of multiple contractors, the client develops a new BATNA with reference to negotiations with any single contractor. Competing solutions with associated price quotes improve the minimum a client can expect from later negotiations with any particular supplier. This is illustrated as BATNA' in Figure 6.

Second, contractors differ in their capabilities. It may very well be that some contractors are better suited for a particular task, which translates to more integrative potential. An increased integrative potential may come from, for example, shared interests, economies of scale and, most importantly, from differences in preferences. This translates to a shift in the ZOPA to the northeast direction, as illustrated in Figure 6.

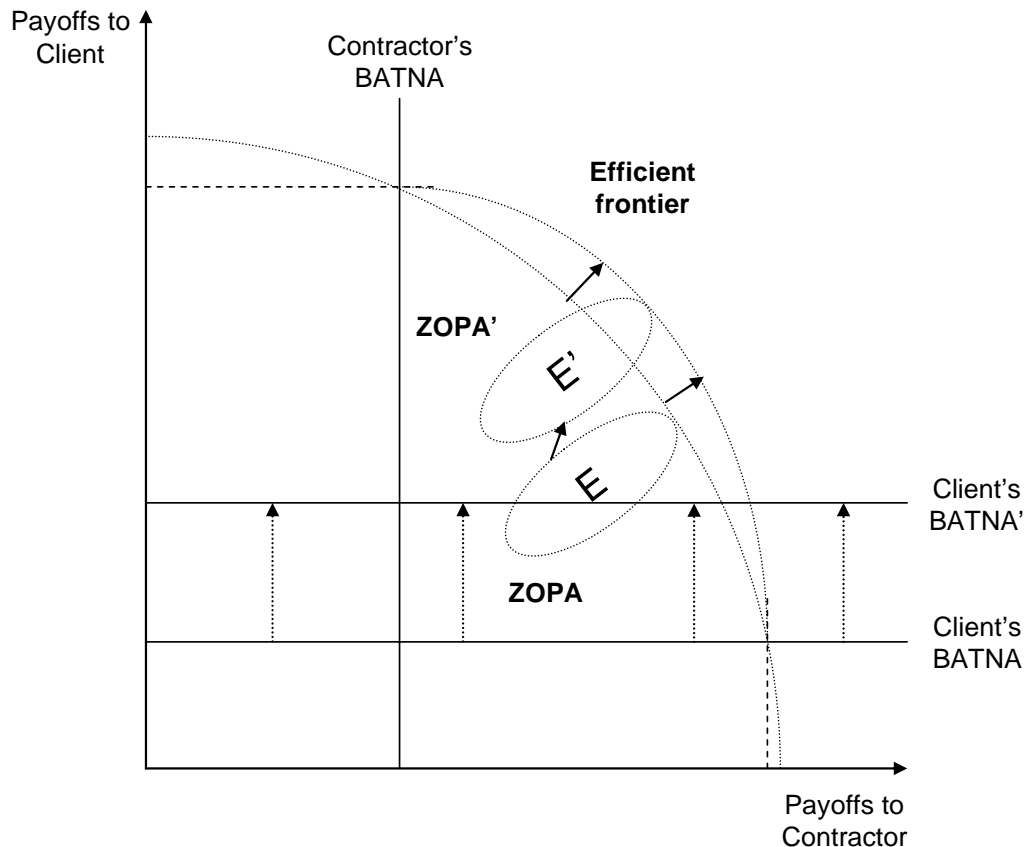


Figure 6 Market creation

Assuming that the client and a contractor would eventually converge on a negotiated agreement, which is close to efficient and equitable, the combined effect of these two factors shifts the region of expected convergence from E to E' (Figure 6). Generally speaking, the game becomes more favorable to the client.

4.2.2 Contractor: Project framing

Project based firms have developed marketing practices designed to position them in a demand environment and enable them to react to project opportunities using a deterministic approach, or a constructivist approach (Cova & Hoskins 1997). It is important to realize that the project procurement process is very much constrained by statutory processes, applicable laws and regulations (such as percentage procured from local sources) and other institutional and policy barriers. Nevertheless, in the constructivist approach, the contractor becomes actively involved in shaping the competitive arena and the rules of the game (Cova, Mazet & Salle 1994).

The success of this strategy is, of course, influenced by the extent to which the client is prepared to accept an interactive dialogue with the contractor. However, even on public sector tenders, where the client usually has a legal obligation to reject any interaction with the contractor in the name of fair play, the contractor can try to influence the project conditions by establishing contact with a variety of external experts, who will usually be called upon to assist the client in developing tender documents (Cova & Hoskins 1997).

Basically in all tendering situations, the contractor's aim is to distinguish its offer from those of its competitors and thereby achieve recognition by the customer as being the most suitable business partner (Cova & Hoskins 1997). Applying the concepts of the negotiation analytic framework, this simply translates to worsening the client's BATNA.

A contractor can seek to influence the client's interests, the criteria with which the client evaluates possible proposals in such a way, that the contractor appears more favorable in relation to competing contractors. This means that as external alternatives to a negotiated agreement with the contractor, the client does not expect to attain a very high payoff from the other contractors. For example, a contractor might minimize overall perceived uncertainty associated with the contractors offering, and

maximize perceived uncertainty associated with a competitor (Cova & Hoskins 1997).

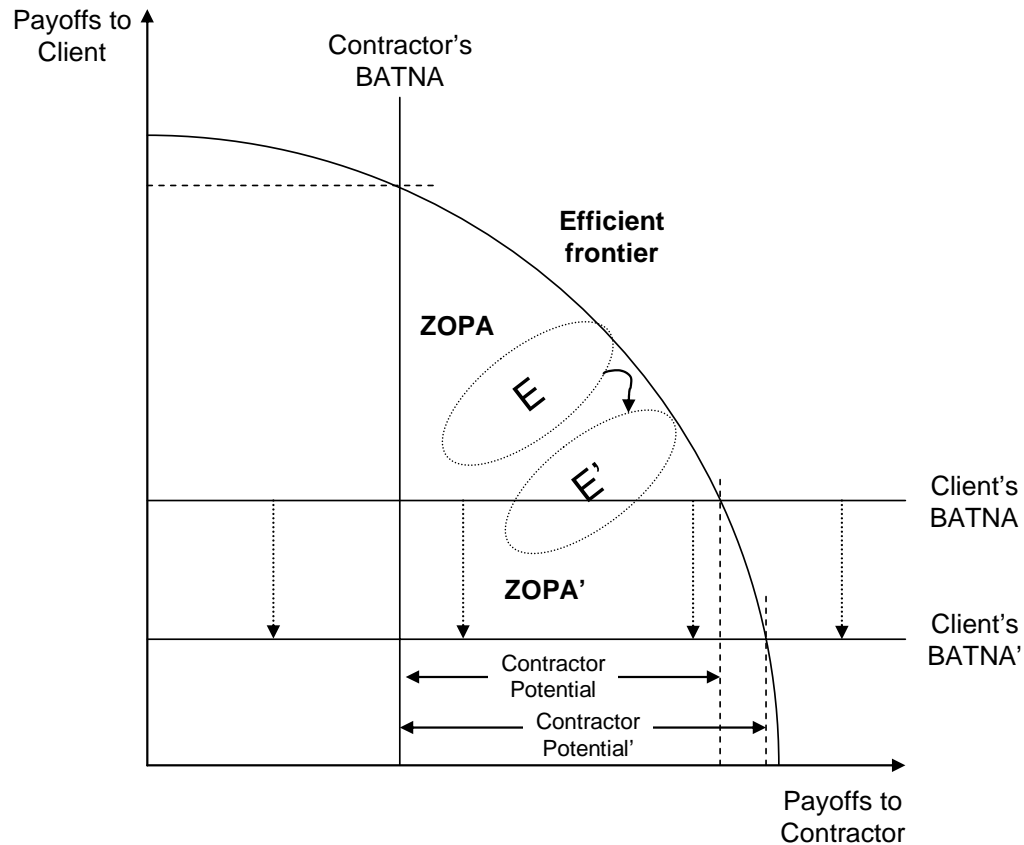


Figure 7 Project framing

The consequence from the contractor's point of view is that the client's BATNA shifts to a lower level, which increases the potential to the contractor; and, again assuming that the parties would converge on a negotiated agreement, which is close to efficient and equitable, the combined effect of these two factors shifts the region of expected convergence from E to E' (Figure 7). Generally speaking, the game becomes more favorable to the contractor.

4.3 Bidding phase

4.3.1 Client: Competitive sealed bid

Face-to-face individual negotiations between a client and contractor can be transformed into auctions by including other contractors in the game (Raiffa et al. 2002). Auctions are a special class of distributive negotiations involving three or more competing parties – the client and two or more competing contractors. In addition to the competitive client-contractor relationship, there is a competitive tension between the contractors.

The reason why a client might want to use an auction mechanism instead of individual negotiations is simple: the competitive element between potential contractors may lead them to ignore the distribution of payoffs with the client. In a pure negotiation situation, a contractor is concerned with claiming a maximum share of available payoffs; in auctions, the contractor is also concerned with accessing the payoffs in the first place.

There are different auction mechanisms that the client can employ, for example the Dutch auction, the competitive sealed bid, the Vickrey auction or the reciprocal bid (Raiffa et al. 2002). By far the most used is the competitive sealed bid, where each of several bidders submits a sealed-bid value for a given project. As an example, the government might auction off the rights to build and operate a given road system, and the bidders might be various construction companies or syndicates of companies who are bidding for the concession to manage the roads. Each syndicate submits a sealed bid; the bids are opened up simultaneously, and the contract is awarded to the highest bidder.

In some situations it is the minimum value of the bid that will win the project. In a typical example, a government awards the contract for building a certain facility, such as a highway. Various contracting firms seek the project, and each submits a competitive sealed bid. The bid with the lowest cost to the government wins the contract.

Assuming a competitive sealed bid auction, where the bids of contractors are identical except for a single issue, the price, the ZOPA collapses into a diagonal frontier. If the client were to engage in price negotiations with a single contractor, convergence in an (equitable) agreement would be found in the region denoted N (Figure 8).

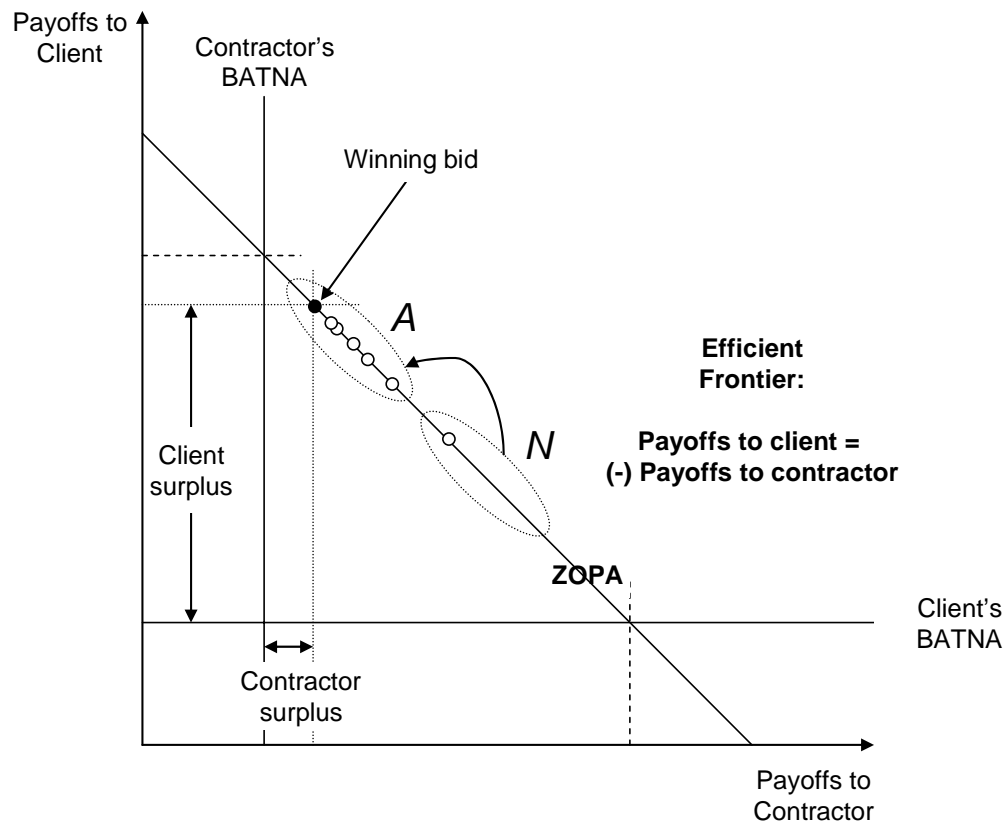


Figure 8 Competitive sealed bid

By creating a competitive auction among the potential contractor's, who must balance the payoffs implied by their bid, and the probability of winning, the client shifts the region of expected convergence closer to the contractor's BATNA, and claims a greater share of the distributive potential to himself.

Contractors need to consider essentially two things in their decision to bid: the payoffs implied by their bid, and the probability of winning with the bid. Typically, the contractors seek to maximize their expected payoff, that is, the product of payoff and the probability of winning. In minimum

bid auctions, a low bid is associated with lower payoffs, i.e. a bad contract, but a higher probability of winning. A high bid implies high payoffs, but risks losing the contract.

A contractor would additionally benefit from decomposing the bidding problem into two components: analysis of own BATNA, to determine a threshold value for the bid, and analysis of the competing contractors' BATNAs, to determine the Minimum Bid Of Others (MBOO) (Raiffa et al. 2002). At stage one a contractor submits a bid, at stage two a contractor learns if he wins or loses, that is, whether the bid was below or above MBOO. If the contractor wins, his surplus is the bid minus the BATNA. If the contractor loses, his surplus is zero.

4.3.2 Contractor: Captive pricing

As stated earlier, it is possible to distinguish between two broad options of marketing practices: the deterministic and the constructivist (Cova & Hoskins 1997). The deterministic approach is based on the principle that the project will be defined entirely by the future client, together with any advisors, and a contractor only anticipates the competitive arena.

The decisive issue for winning projects that are completely specified is price. In poor economic circumstances or in intensely competed project business, a contractor might consider using a strategy, which can be termed as captive pricing.

In following a strategy of captive pricing, the contractor is basically placing itself in the worst of all competitive positions by accepting the need to submit the lowest bid against a set of specifications and conditions of a contract (ibid.). However, captive pricing can also be understood in terms of strategic behavior, where the contractor submits an individually irrational bid at the tendering stage, in order to gain and earn on a monopoly position at later stages.

For example, the contractor may seek to renegotiate technical and commercial terms during implementation of the contract in an effort to

improve the payoffs on the project. Or the contractor may, sometimes with guile, seek inconsistencies in design documents, incomplete specifications resulting in reorders, or launch any other claims in order to increase the payoffs of the project.

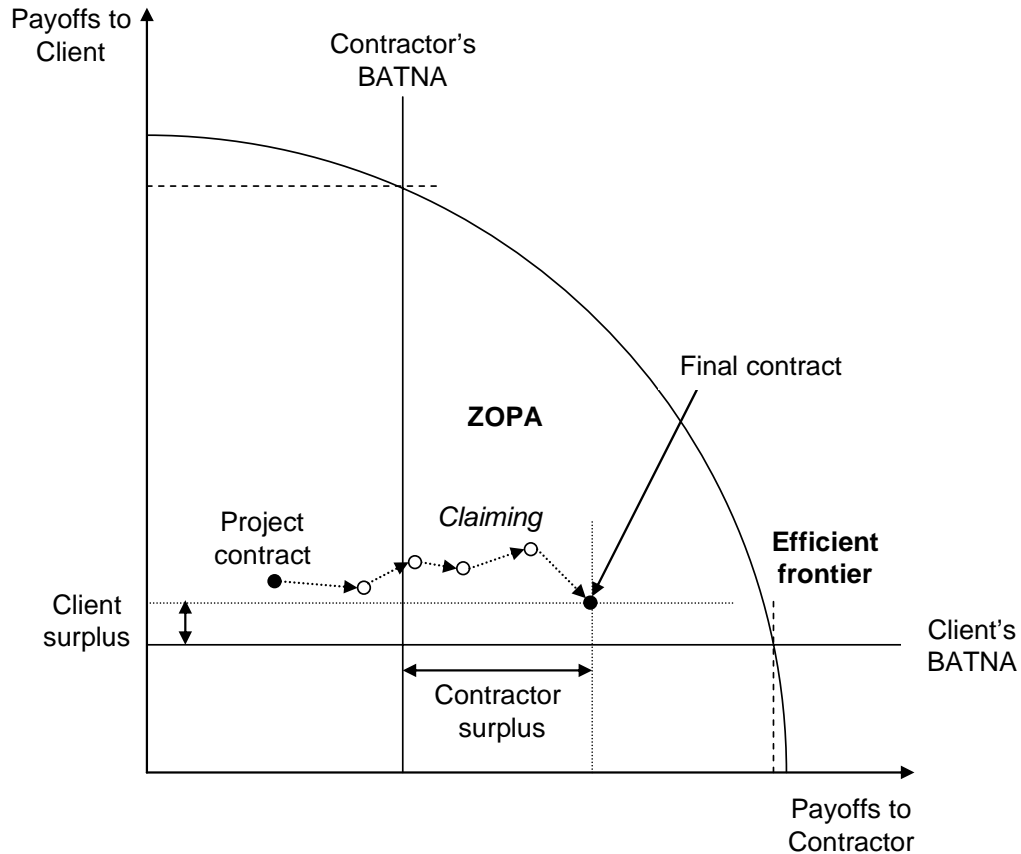


Figure 9 Captive pricing

With reference to the negotiation analytic framework, this means that the contractor initially accepts a contract below its BATNA, and in subsequent stages engages in opportunistic claiming to earn a final surplus (Figure 9).

4.4 Negotiation phase

4.4.1 Client: Bargaining rounds

The negotiation phase in competitive bidding refers to working out minor details of the contract with a preferred bidder. However, in some public procurement procedures, as in the negotiated procedure developed for the

legal requirements of the European Union, there is a stage where the client has narrowed down the set of potential contractors to two or three. This stage is preceded by a bidding stage in which two or three preferred bidders are chosen for additional negotiations; and the stage ends in best and final offers (BAFOs) from the preferred bidders.

More generally, as in negotiations between private counterparts, the client may, after identifying a set of promising bids engage in what can be termed as bargaining rounds. What this means is that the client, after receiving a quote from one contractor, goes to another contractor to ask for a slight improvement in terms, and repeats the procedure until the contractors converge on their best and final offers (Figure 10). This is a strategy, closely related to the concept of descending, or Dutch auction (see e.g. Raiffa et al. 2002). The client, again, exploits the competitive tension between the contractors to squeeze out some additional payoffs for himself at the cost of the contractor.

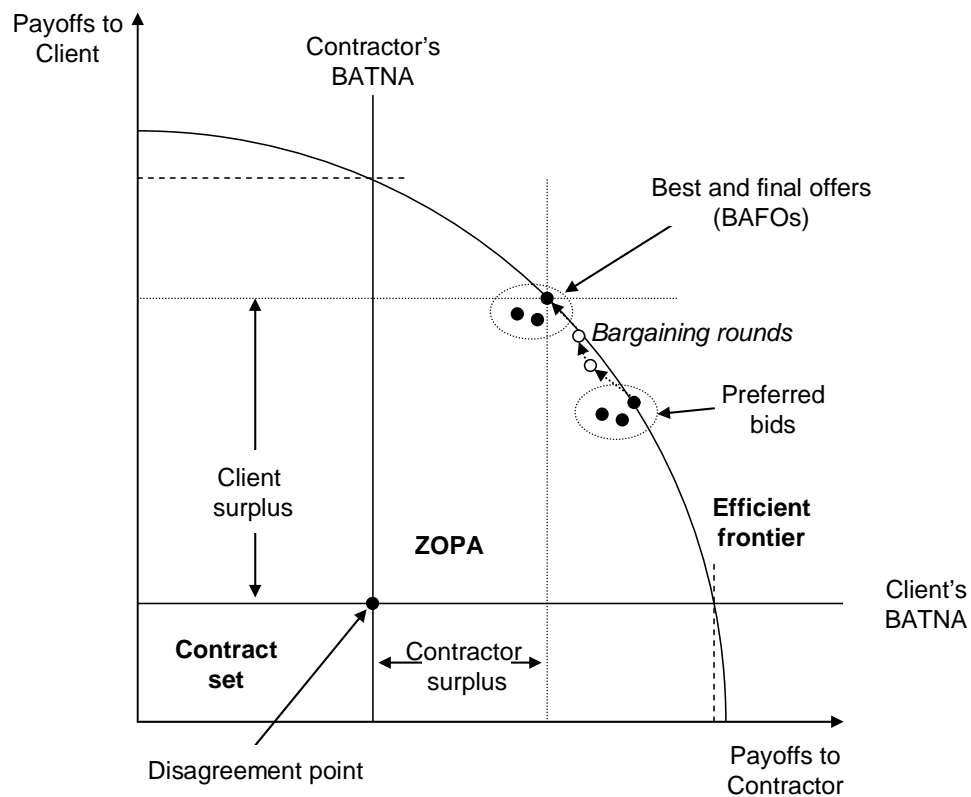


Figure 10 Bargaining rounds

4.4.2 Contractor: Post-settlement modifications

Often a contractor has to submit a bid against a tight set of specifications and conditions, specified in the invitation to tender documents. In these situations a contractor is usually not able to utilize the full potential of its resources. Typically, a contractor is able to contribute to the final solution by making recommendations on the design, materials or process of implementation. Yet, this may not be possible in the bidding stage.

Moreover, as Raiffa (1985) points out, negotiating parties might not choose to disclose their full confidential information (on interests, options, etc.) until after they have come to an agreement. Only after a tentative agreement might negotiators be willing to confide information and search for joint gains, i.e. better agreements. Sometimes the signing of a contract can open up the negotiations for more intense trading, creating and claiming behavior.

The contractor might introduce new evidence or arguments to encourage a customer to re-evaluate the suitability of a chosen contract and thereby attempt to influence the revision of technical, commercial, or relationship issues within the documents (Cova & Hoskins 1997). The contractor can also introduce innovations unidentified by the client, and different from tendering documents. For example, the contractor can suggest a more enduring, less costly material, whereby both parties gain. The success of this strategy is again influenced by the extent to which the client is prepared to accept an interactive dialogue with the contractor. Where a customer refuses to enter into such dialogue, compliance with the conditions of contract becomes a prerequisite.

The inclusion of new interests or the introduction of new issues or options within issues can have the effect of changing the ZOPA. In particular, where the parties identify shared interests or are able to make trade-offs on issues, where their preferences differ, integrative alternatives are formed. This is visualized in Figure 11, where the parties go through three rounds of renegotiations and make post-settlement modifications to the contract.

In this case, both parties' payoffs are improved, although the contractor gains more from the modification.

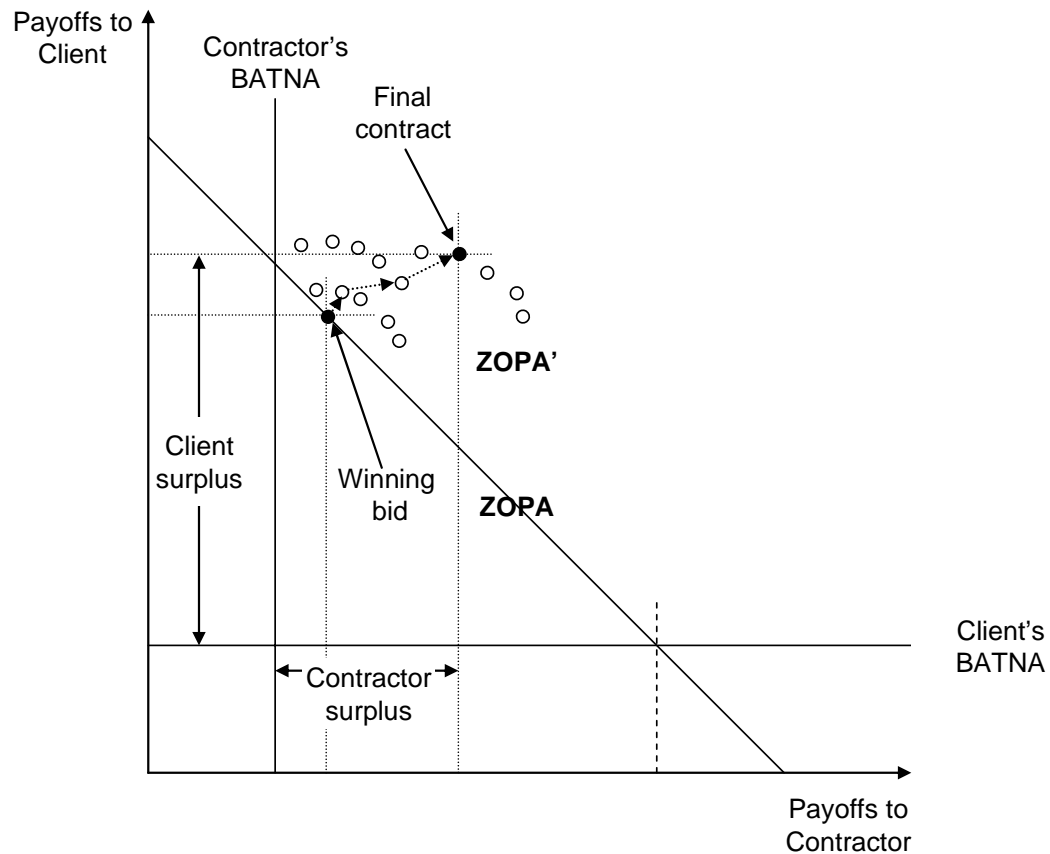


Figure 11 Post-settlement modifications

As noted earlier, research suggests that, essentially, information exchange promotes the development of good integrative solutions (Pruitt 1981, Thompson 1991, Kemp & Smith 1994, Raiffa et al. 2002). Legally speaking, the client often has the responsibility to disclose all relevant information prior to the bid preparation, otherwise the submitted bids can be void and the contractors can pull out of any agreements without penalty. So withholding information can disqualify the process itself and the use of this particular strategy.

4.5 Implementation phase

4.5.1 Client: Variation orders

Major projects often take years to complete and a client's needs may change in the course of implementation. For example, in the construction industry variation orders are frequent, due to unapt designs or changes in needs. The client may try to take advantage of the bilateral monopoly situation with the contractor.

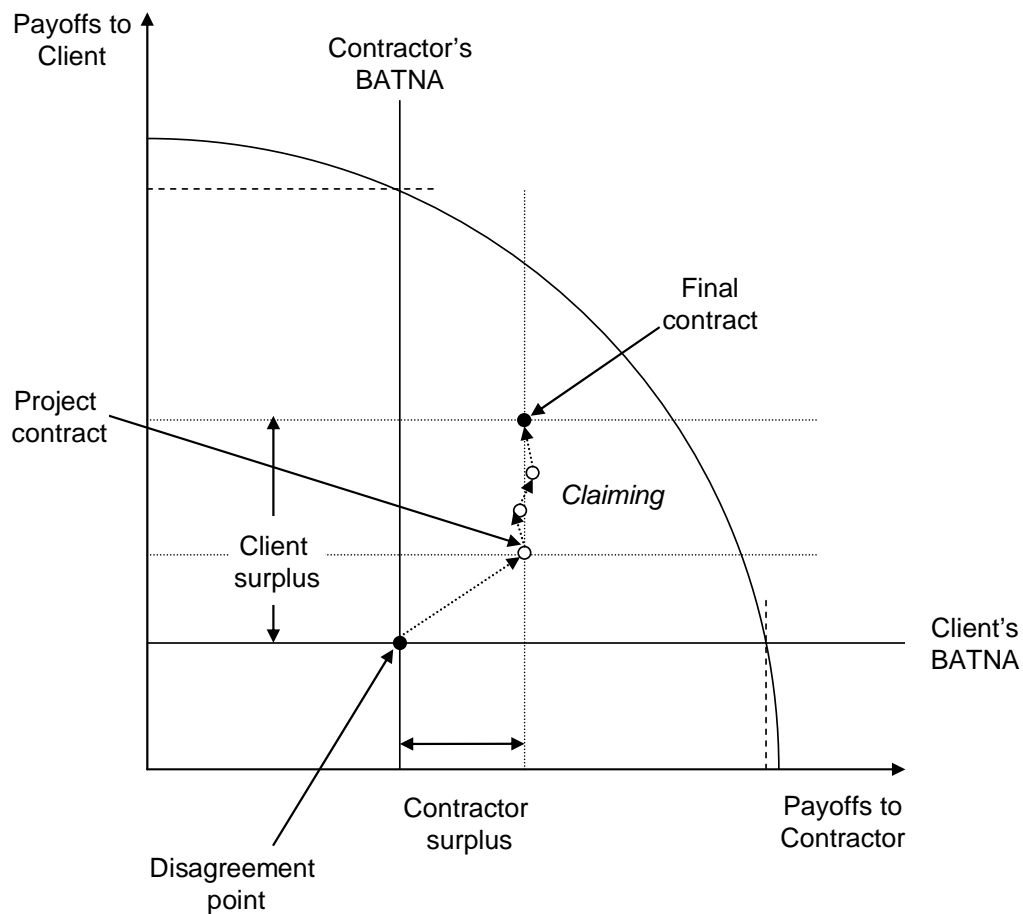


Figure 12 Variation orders

It is not uncommon for the terms of contract to dictate that variation orders need to be completed on a cost-reimburse basis. This means that a client can seek to make change requests, which increase its payoffs, but where the contractor's costs are only covered (Figure 12). This is essentially

claiming behavior, where the client gains and the contractor's surplus stays constant (costs are compensated for).

4.5.2 Contractor: Acceptance test

In the implementation phase, a strategy contractors commonly use is an acceptance test. The essence of an acceptance test is to set a new BATNA for the contractor. The contractor has undertaken some work as determined in the project contract, and by receiving recognition from the client for fulfilling them; the contractor secures a certain level of payoffs for himself. This might be a strategic move, since the contractor may have better information as to what still needs to be done for the client to realize its payoffs from the project. When additional work is required, the contractor generally prices it high.

Further negotiations can result in at least one of three possibilities (Figure 13). First, the parties develop changes to the accepted facility, which increase the project's worth to the client above that which the client expects on the basis of the project contract, and for which the contractor is compensated well (A). Second, additional work is required for the client to achieve the expected payoffs from the project, and the contractor is able to attain additional payoffs (B). Third, the additional work costs more for the client and it increases the value of the investment (C).

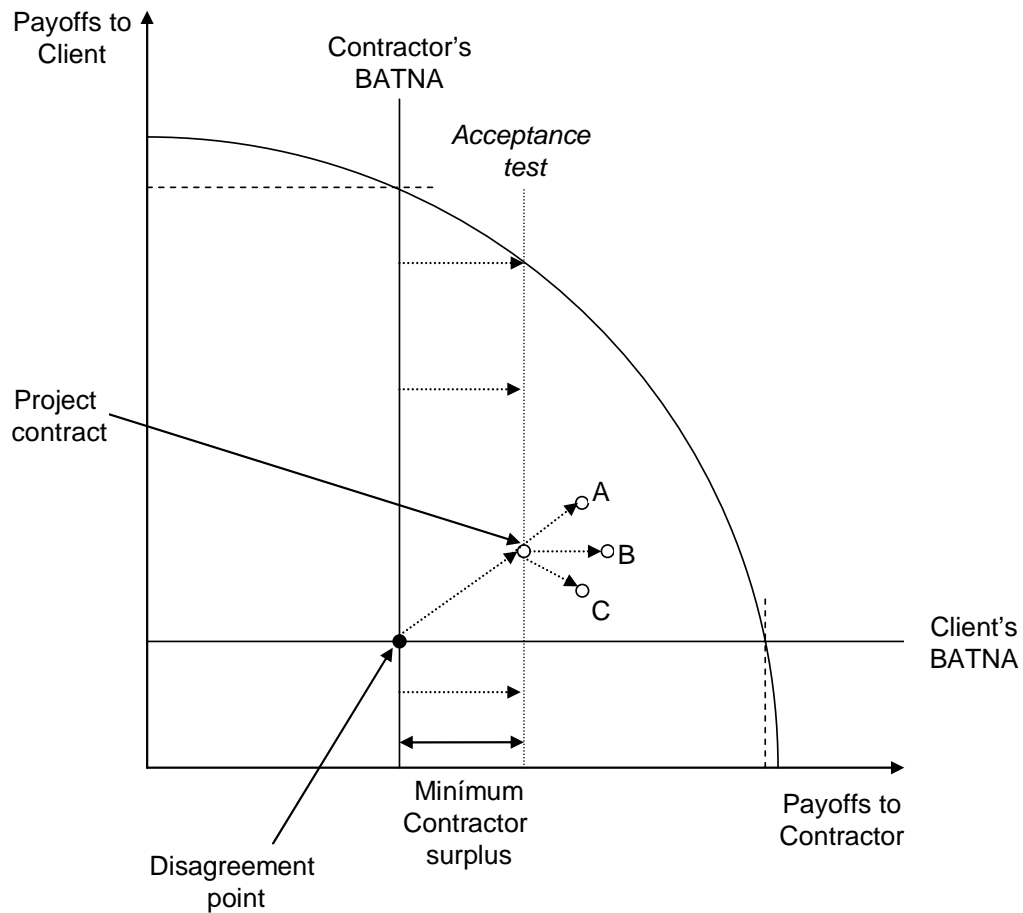


Figure 13 Site acceptance test

4.6 Summary of project negotiation strategies

The previous section described a set of maneuvers that either the client or contractor can use to transform the negotiation game into a more favorable game to themselves. A single negotiation strategy for each, the client and the contractor, for each of the project phases was covered. In this section the strategies are summarized with a short description of each strategy and its interpretation.

The negotiation strategies, which a client may want to employ, are market creation, reverse auction, bargaining rounds and variation orders (Table 6).

Table 6 Summary of maneuvers available to client

Strategy	Description	Interpretation
Market creation	Client arouses interest in the project by publicly announcing a project opportunity	By ensuring the participation of multiple contractors, the client develops an attractive BATNA with reference to negotiations with any single contractor and maximizes integrative potential
Competitive sealed bid	Client arranges a call for tenders where two or more contractors are invited to submit tenders for the project	Client transforms face-to-face negotiations into auctions and claims a greater share of distributive potential by shifting the region of expected convergence closer to contractor's BATNA, who must balance payoffs of implied by bid with probability of winning
Bargaining rounds	Client, after receiving a quote from one contractor goes on to another to ask for a slight improvement in terms until convergence on best and final offers is reached	Client claims a greater share of the potential payoffs by shifting the region of expected convergence closer to contractor's BATNA, again by sequentially exploiting the competitive tension between the contractors
Variation orders	Client makes change requests on project contract	Client claims additional gains unilaterally by exploiting the bilateral monopoly situation, in which the contractor needs to complete variation orders on a cost-reimburse basis

The negotiation strategies, which a contractor may employ, are project framing, captive pricing, post-settlement modifications and acceptance tests (Table 7).

Table 7 Summary of maneuvers available to contractor

Strategy	Description	Interpretation
Project framing	Contractor becomes actively involved in the shaping of the client's interests or perceived alternatives so that the contractor appears more favorable in relation to competitors	Client's BATNA shifts to a lower level, increasing the potential of the contractor leading to higher expected payoffs
Captive pricing	Contractor seeks to win a contract by submitting an extremely low bid and to make profits in later stages through contract claims	Contractor accepts an individually irrational contract initially, but enters the feasible region eventually and ends up with positive surplus by claiming with guile during the course of the project
Post-settlement modifications	Contractor makes recommendations on project plan or implementation after submitting a bid against tight specifications	Contractor changes the zone of possible agreement by introducing new options for negotiated issues, new issues altogether, or by influencing the interests of the client, and thereby gains additional payoffs
Acceptance test	Contractor receives approval from client for completing a certain subsection of the contract	Contractor secures a new BATNA, and may anticipate further changes in contract whereby additional gains are realized

5 Results and conclusions

5.2 Theoretical issues

The main results of the study include a conceptualization of the project sales and delivery process as a negotiation problem, and a qualitative description of various potentially effective negotiation strategies that the client and the contractor may adopt.

The study selected a project marketing approach, which emphasizes the role of the project as a business transaction between a client and a contractor. In this respect, the study does not make a distinction between the project marketing process and the project sales and delivery process. In the project marketing approach, discontinuity, uniqueness and complexity have been introduced as distinctive characteristics for selling and delivering projects. The nature of each of these three characteristics and their implications to project negotiations were analyzed.

Seen from the project selling firm's point of view, there are six generic and sequential phases: search, preparation, bidding, negotiation, implementation, and transition. We observed that the contents of the phases of a project are analogous to the negotiation phase model. This observation allows us to interpret the project sales and delivery process in terms of a negotiation process. A project can be conceived as a process of joint decision-making where two or more parties communicate to select and commit to a common course of action that is superior to unilateral alternatives, i.e. to achieve payoffs none of the parties could achieve alone.

Negotiation analysis offers a logically consistent framework for studying project negotiations. In this study, the elements of the approach as outlined by Sebenius (1992) were complemented with a number of other concepts found relevant in literature, and divided into two classes: concepts which relate to the analytic structure of negotiations and concepts which relate to the flow of negotiations within that structure.

Moreover, the pattern in the flow of negotiations was described with a phase model of negotiations, grounded in a general three-stage sequential model of decision-making. This model is an idealization of joint decision-making and in reality the stages are not strictly distinct, but overlap and feed back from one another. The model highlights the important idea that negotiations are incompletely determined games, where the elements of the negotiations are not fixed but conceived in time. The negotiation setting more often than not takes shape through the repeated interaction of the parties and can therefore be characterized as a learning process. The parties may start with a very vague idea of the benefit of joint behavior and through interaction the parties learn about each other's (and even their own) preferences, issues, options, alternatives and incrementally construct the zone of possible agreement, ZOPA, and potentially converge on a contract. We also reviewed four distinctive negotiation behaviors: contending, problem solving, yielding, and avoidance.

The study illustrates application of the negotiation analysis approach to the four phases of a project, which are specific to any single project. These four project specific phases are preparation, bidding, negotiation, and implementation. The framework was used to describe and analyze selected negotiation strategies that the client and the main contractor may employ with respect to the four phases. The contractor's four example strategies – one for each phase – included: project framing, captive pricing, post-settlement modifications, and acceptance test. Respectively, the client's four example strategies included: market creation, competitive sealed bid, bargaining rounds, and variation orders. However, it is important to note that this presentation only provides the reader with an example of possible strategies. Other appropriate and empirically applicable strategies must be derived by further empirical research in specific companies and organizations. Such empirical research could reveal more effective strategies that would be specifically worthwhile for certain business relationships and situations.

The negotiation analysis framework appears suitable for producing a qualitative description of selected negotiation strategies that either a client or a contractor may employ in the course of a single project. However, many additional complicating features of negotiations could be incorporated to the analytical framework, for example uncertainty (risk sharing), time (impatience), cognitive biases (behavioral realities), elaborate auction and bidding mechanisms, facilitation, mediation and arbitration, incentives, coalitional issues, threats, warnings and ultimatums.

Due to its generality, the negotiation analysis approach may serve to integrate insights from different disciplines. Yet there are obvious dangers in drawing from multiple, self-standing theories: evidence for nearly any claim can be found by identifying the right source and the synthesis of multiple independent theories may risk becoming a conceptual mess. On the other hand, negotiation analysis primarily seeks to deliver practical value, and therefore, in part, the appropriateness of drawing from multiple disciplines is ultimately evaluated by pragmatic benefit, not theoretical appeal.

Negotiation analysis generally assumes intelligent, boundedly rational, self-interest seeking behavior by the other parties. These assumptions and the neglect of, for example, personal factors in negotiations reveal negotiation analysis has serious limits. In reality, behavior can be highly irrational or unpredictable. Emotions and perceptions play a major part in any negotiation, and a party may, for example, exert monetary punishment for psychological or social reasons. Personal attributes may deter or call forth open communication, and therefore explain why some individuals realize higher payoffs than their colleagues. Moreover the parties to a negotiation process are seldom equally capable of reasoning, identifying and defending their positions.

The distinction between hard, substance elements and softer, relationship elements is recurring in negotiation literature, but it is difficult to find theoretical groundings that justify the intuitively appealing distinction. For a theoretical grounding it could be possible to refer to economics literature,

particularly the discourse on social reality as a context for economic action. The key message of this discourse projected on negotiations is that the micro-level actions of actual negotiators can be analysed on two levels: the socio-psychological and the economic-legal levels. Negotiators operate on both, whether they are conscious of it or not. Both processes are in effect in any real world negotiations, and an explicit distinction allows sophisticated negotiators, scholars and practitioners alike, to pay attention to either level as deemed necessary. This in reality, of course may confer tactical advantage over a less proficient counterpart.

The distinction between the two dimensions in negotiations is interesting and could potentially be incorporated into the negotiation analysis approach. It could, for example, be practical to distinguish between interests and issues on basis of whether they belong to the socio-psychological dimension or the economic-legal dimension (c.f. Fortgang et al. 2003, Ertel 1999).

5.2 Practical implications

The results of this study enable understanding of the essential elements of systematic and beneficial negotiation activities in project deliveries. This is important, as research shows that contrary to common belief, people, on average, are not very good at negotiating optimal deals. The approaches and processes used to manage project negotiations are still relatively undeveloped in most organizations, and negotiators generally rely on situational factors in explaining the success or failure of negotiations. People responsible for project negotiations may have little training on the subject; additionally training on project negotiations often focuses on softer behavioral issues.

Although behavioral aspects of negotiation are important, we believe that more systematic analysis of the structure and flow of negotiations is necessary. Negotiation analysis provides a theoretically well-founded methodology for preparing and managing project negotiations. A careful examination of the issues under negotiation, the various options for

resolution and the parties' underlying interests can lead the parties to win-win behavior and to converge on win-win type outcomes, which ideally leave no money on the table, i.e. are efficient.

The strategies introduced in this study can be used as examples of what the successful negotiation strategies might be and interactive training sessions in companies could be combined with empirical research with a purpose to contribute to the creation of new, more detailed and empirically applicable strategies.

In principle, negotiation analysis approach could be used to quantify negotiation process to find the optimum outcome. As such it can be used as a training tool. However, for practical applications, we suggest that a qualitative application of negotiation analysis would be most fruitful in project negotiations. A qualitative application is mostly concerned with consciously directing attention to the critical aspects of a negotiation situation with the help of a complete and consistent framework. The best negotiation results are achieved when both parties trust each other and share information about their preferences. Practical suggestions for managing negotiations from negotiation analysis perspective include:

- An understanding of the alternatives for negotiations is essential not only for the simplistic reaching of an agreement, but for actively managing the attractiveness of the alternatives (e.g. customer can emphasize value of continuous business relationship resulting from this project).
- The main integrative potential in negotiations comes from differences on how each party values the issues under negotiation. It is important to identify and analyze these differences to create win-win contracts.
- It is beneficial to seek for opportunities to change the negotiation structure (e.g. issues under negotiation and their options) during negotiations for a better outcome.

- All decisions made during the negotiations are based on subjective perceptions of negotiation parties. It is possible to influence how the other parties may value different outcomes.
- Analysis is necessary to correct people's intuitions, and the benefit of systematic preparation may be significant in attaining good negotiation outcomes. Moreover, although experience and intuition are highly important, it is difficult to codify and transfer them between negotiators. Analysis, on the other hand, can be codified and taught.

The negotiation analysis approach creates awareness of the structure and flow of negotiations and ultimately helps change negotiation games more favorable to negotiators. The conscious directing of attention toward the structure and flow of negotiations is the route to intuitive application of the concepts and, ultimately, more favorable negotiation outcomes. The approach can also be applied in practical settings for the purposes of preparing for negotiations as well as training for the discipline. As a direction for further research, empirical experience of such uses is encouraged.

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Glossary

Alternative, an external solo choice that a party can pursue if the negotiations break down.

Asymmetrically prescriptive-descriptive, an analysis orientation that seeks to develop prescriptive advice to one party, given a description of how others will behave.

Behavioral decision theory, descriptive studies of how and why people think the way they do, usually with reference to the rationality ideal.

Best Alternative to a Negotiated Agreement (BATNA), best outside alternative a party can turn to, should the party fail to reach an agreement in the current negotiation.

Boundedly rational behavior, choice behavior intended to be rational, in the sense of calculatedly maximizing personal utility, but is constrained by limited cognitive, temporal or computational capabilities.

Contract, the fixing of an option for each of the issues combines into a contract, which determines an expected payoff to each party as measured by the degree the contract satisfies the interests of that party.

Contract set, the set of all payoff combinations associated with the various possible agreements.

Decision analysis, the systematic decomposition and clarification of an independent decision problem where the payoffs of decisions are not affected by the decisions of other involved parties anticipating one's actions.

Dominance, a contract is dominated if there is another contract which leaves none of the parties worse off and is preferred by at least one party.

Efficiency, a contract is efficient if it is non-dominated. In other words, the payoffs to any single party cannot be unilaterally improved without worsening the payoffs to some other party.

Efforts to change the game, purposive behavior designed to change the ZOPA, or at least to change the way in which other parties perceive it.

Fairness, a fair sharing refers to a contract that gives each party a similar proportion of their potential. There are two basic approaches to determine a fair outcome: a fairness standard and a fair procedure.

Feasibility, a contract is said to be feasible, or individually rational for each party if the contract assigns to each party a payoff that is at least as good as that party's BATNA.

Flow of negotiation, concepts, which refer to behavior within the structure of negotiation, the interaction of the structural elements in time and the linked processes of "creating" and "claiming" value; and efforts to "change the game" itself.

Game theory, a framework for analyzing interdependent decision-making, where the parties make their decisions independently of each other, but these separate choices interact to determine a payoff for each side.

Impact, actual payoffs of a contract. The payoffs at the time of the signing of the contract are expected payoffs, and are likely to be different from the actual payoffs resulting from implementing the jointly-selected course of action.

Incompletely determined, the elements of the situation are not fixed and cannot be described objectively in full detail.

Interests, the measures against which possible agreements are evaluated.

Issues, the content of agreements. Each issue under negotiation is basically a decision variable with two or more possible resolutions.

Negotiation, a process of joint decision-making where two or more parties communicate to select and commit to a common course of action.

Options, the set of possible resolutions for each issue that might be jointly negotiated and jointly pursued. Options are basically the ranges of the decision variables.

Party, a negotiation side, from which the analysis typically assumes intelligent, but boundedly rational, self-interest seeking behavior.

Plus-sum game. It is possible to increase the payoffs to one or more parties without decreasing the payoffs to other parties; also referred to as integrative negotiations.

Potential, refers to the maximum surplus a party can receive, associated with a contract, where the other parties' surpluses are zero.

Principle of reciprocal inclusivity, negotiations should include all issues of relevance to all parties.

Project, a complex transaction covering a package of products, services and work, specifically designed to create assets that produce benefits for a buyer over an extended period of time.

Self-interest seeking, a party has goals of its own, which the party actively pursues.

Structure of negotiation, comprises concepts that determine the analytical configuration of a negotiation outside of time.

Subjective perspective, the analysis relies heavily on subjective sources of information.

Surplus, to a party is the difference between the payoffs associated with a contract and the party's BATNA.

Value left on the table, an acknowledgement that the negotiating parties do not automatically reach efficient solutions.

Zone of possible agreement (ZOPA), the set of feasible contracts.

Zero-sum game, an increase in a party's payoffs necessitates an equal decrease in another party's payoffs, also referred to as distributive negotiations.

Win-win agreement, any feasible contract beyond the parties BATNAs.

Win-win behavior, joint improvement of a tentative agreement or negotiation text.