

A Negotiation Approach to Project Sales and Implementation

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ABSTRACT ■

We conceive the project sales and implementation process as a continuous joint decision-making process between the customer and supplier. We draw a parallel between the stage model of negotiations and phases of the project sales and implementation process, and apply the framework of negotiation analysis to the context of project management. A sample of negotiation strategies for both counterparts is presented to illustrate how the negotiation analytic framework can be used to describe and analyze different strategies the supplier and customer can employ in different phases of the project sales and implementation process. We find that a qualitative application of the approach facilitates the description of generic negotiation maneuvers in projects, supports the analysis of project negotiations, and provides several practical suggestions to improve negotiation outcomes.

KEYWORDS: project sales and implementation process; decision making; negotiation analysis

INTRODUCTION ■

Project business is concerned with complex transactions involving products and services that 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 implementation 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 buyers and sellers 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).

The motivation for the focus on negotiations in projects in this paper can be derived from the extant project management literature that emphasizes the importance of managing the interaction between the project supplier and the customer. For example, Pinto and Rouhiainen (2001) and Turner and Keegan (2001) derived their suggestions for customer-based and project-based organizations from previous work that specifically concentrates on customer-focused managerial mechanisms in single projects. Studies on risks and their management in projects report the lack of communication and cooperation between the supplier and the customer, and insufficient alignment of the supplier's and the customer's project activities as significant sources of risk (Chapman & Ward, 2004; Miller & Lessard, 2001). Morris and Hough (1987) and Shenhar, Levy, and Dvir (1997) suggested that satisfying both the customer's and supplier's expectations in a project is an important determinant of project success. In sum, the relevant ties between the supplier and the customer are, in the existing project management literature, often characterized by communication, information exchange, risks, or success-related issues. We aim to address these challenges by analyzing projects as continuous joint decision making between the customer and supplier.

The objective of this research paper is to create a conceptual framework that can be used to describe and improve joint decision making between the project supplier and the customer during the project process. Our primary theoretical background is the negotiation analytic approach (Raiffa, Richardson, & Metcalfe, 2002; Sebenius, 1992), which provides a theoretically well-founded methodology for analyzing project negotiations. While some authors have approached the subject in a highly analytical fashion (e.g., Kersten, 2001), our approach is more in qualitative applications as advocated in Raiffa et al. (2002). The point of departure of this paper is the project marketing literature. The theoretical body of knowledge in the negotiation analytic approach is used to construct a negotiation analytic framework for the project sales and implementation process. Project marketing and project management literature is used throughout the study to provide the analysis with a context of the whole life of a project. The view on applying

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different project negotiation strategies in different phases throughout the life cycle of the project emphasizes the interpretation of the whole project as a continuous negotiation flow. A sample of negotiation strategies are presented to illustrate how the negotiation analytic framework can be used to describe and analyze different strategies the supplier and customer can use in the different phases of the project sales and implementation process. These strategies are not derived from specific empirical cases, but they are based on the authors' industrial work experience, involvement in multiple research projects, and executive education schemes run by the authors in various international, project-based firms. As such, they only provide a starting point for empirical studies to analyze which type of strategies are successful in different types of situations.

Project Sales and Implementation as Negotiation

In this paper, we adopt the project marketing approach to complement the project management discipline. This choice is warranted by the recognition that the project marketing approach focuses specifically on the interaction between the project supplier and the customer. In the project marketing approach, 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 (Cova et al., 2002). The discontinuity, complexity, and uniqueness of a project as a business transaction require joint decision making to reach a contract. However, project negotiations extend far beyond the tactical considerations associated with competitive bidding, and are not limited to the project sales phase (Cova, Mazet, & Salle, 1994). Essentially, the customer and the supplier face the problem of identifying or creating and distributing potential payoffs offered by joint behavior during

different phases of the project sales and implementation process.

Negotiation is a process of joint decision making (Young, 1991a). The whole project sales and implementation process can be framed as a continuous sequence of negotiation between a customer and a supplier. As proposed by Lax and Sebenius (2006), negotiation analyses should not be limited to only the tactics used in actual contract negotiations at the table, but to have more focus on the design of the negotiations and actions to change the negotiation situation away from the table. In different phases of the project, there are local negotiations that focus on getting tentative agreements, such as contract negotiations or negotiations related to change orders during the project delivery phase. This paper integrates such local decisions to a bigger and continuous decision scheme, where a decision made in the earlier phase of the project influences the structure and flow of the negotiations in later phases. We interpret the process starting from project idea to the final acceptance of the project as a whole integrated negotiation process.

Each project can be conceived as two parallel projects: from the customer's perspective as a procurement and investment project, and from the supplier's perspective as a sales and implementation project. Project management literature introduces different life cycles and their phases for project sales and implementation, both from the supplier's and the customer's viewpoints (Arenius, Artto, Lahti, & Meklin, 2002; Artto, 1999; Kujala & Artto, 2000; Turner & Keegan, 2001). We select here the project phase definition from the project marketing literature as introduced by Cova and Holstius (1993), and use it to illustrate the project sales and implementation process in Figure 1. The figure shows how, at different phases, each party faces the decision problem of selecting a certain course of action from among multiple alternatives and committing to it.

Both the customer and the supplier make important decisions on tentative settlements, such as an investment decision, tender documents, or the submission of tender. Although some of these decisions seem to be taken unilaterally, they are in fact a result of purposeful communication—that is, negotiations—between project parties. An important element to recognize is that such decisions made in the negotiation process are interlinked.

In time, the parties' "degrees of freedom" decrease, which highlights the specific importance of decisions made in the early phases of a project (Artto, Lehtonen, & Saranen, 2001; Morris & Pinto, 2004). By following certain courses of action, the parties also narrow down their ability to influence the final result at later stages. For example, in the preparation phase, a supplier needs to select preferred projects to which the supplier commits through its bidding decisions. At the same time, a customer in the call for tender has committed to the technical and commercial requirements included in the tender documents.

Negotiation Analytic Approach

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). A jointly selected, common course of action is called an agreement (Zartman, 2002), which determines a payoff for each party (Sebenius, 1992). Parties are motivated to negotiate with payoffs what they cannot achieve alone. Negotiation is therefore aimed at either creating something that the parties could not do on their own, or to resolve a problem or dispute between the parties (Lewicki, Saunders, & Minton, 1999).

Negotiations take place in all domains of life, but the structure and pattern of negotiations are fundamentally the same (Lewicki et al., 1999). There are four characteristics common to all negotiation situations (Kremenjuk,

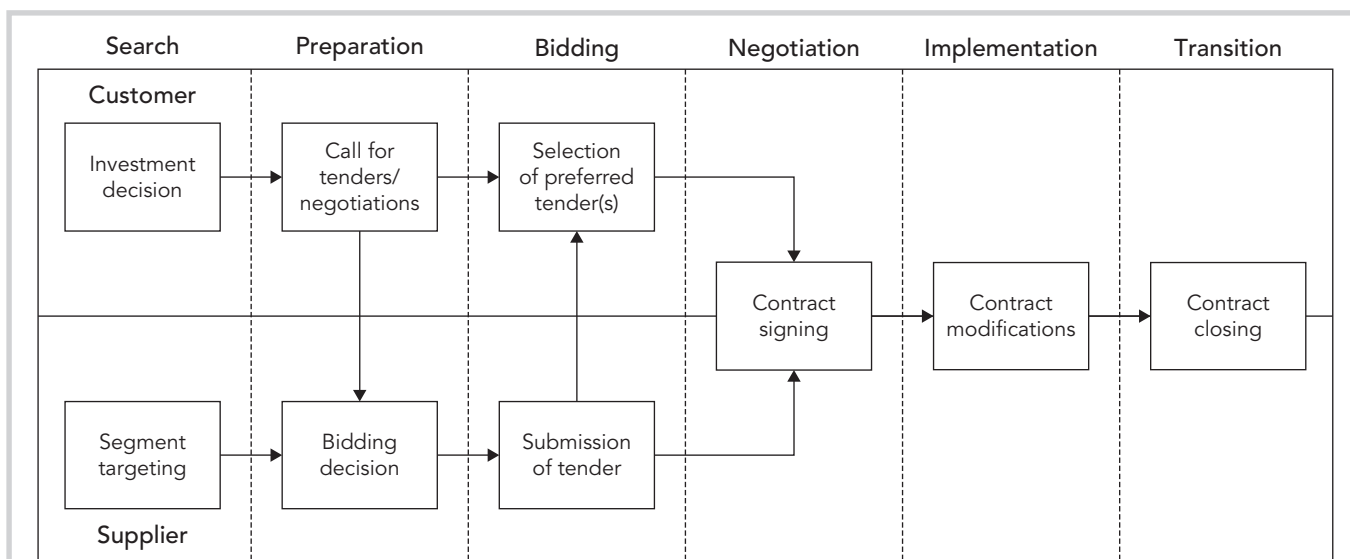


Figure 1: Main decisions of the project customer and supplier in the different phases of the project process.

1993; Lewicki, 1992; Raiffa et al., 2002; Rubin & Brown, 1975):

- There are two or more parties.
- The parties can cooperate to arrive at a joint decision.
- The payoffs to any party depend either on the consequences of the joint decision or alternatives external to the negotiations.
- The parties can reciprocally and directly exchange information.

At the heart of the subject of negotiation is essentially the insight that separate and independent behavior, even if perfectly intelligent and calculating, often leaves interacting parties with outcomes inferior to what could have been achieved through joint behavior. Negotiations are often perceived as zero-sum games, which demand competitive behavior. However, most negotiations also present opportunities for creating solutions from which all parties gain. The negotiations in which the creation of joint value is an obvious opportunity are often referred to as integrative, collaborative, win-win, or creating negotiations (Fisher, Ury, & Patton, 1991; Lewicki et al., 1999; Raiffa et al., 2002).

The negotiations in which opportunities for joint gains are not identified are referred to as distributive, competitive, win-lose, or claiming negotiations (*Ibid.*). Distributive negotiations are generally concerned with the division of a single resource; that is, 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 agreements (Raiffa et al., 2002). Effective information exchange promotes the development of good integrative solutions.

Theoretical roots of negotiation analysis approach are in the theory of games, decision analysis, and behavioral decision theory. However, negotiation analysis 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).

In game theoretical 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 to search for “equilibria” in which each party has no incentive to change its course of action.

Decision analysis is the systematic decomposition and clarification of independent decision problems (see, e.g., Clemen, 1996). 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).

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Behavioral decision analysis gives descriptions of how the other parties might actually behave, and also informs the parties of decision-making fallacies to which they are susceptible.

Although negotiation analysis draws heavily from the three fields of theory previously discussed, the approach has the following four distinct features (Sebenius, 1992):

- First, 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.
- Second, a radically subjective perspective means that the analysis relies heavily on subjective sources of information in the assessment of probabilities and other parties' expected behavior. Additionally, subjective perceptions of interests and more operational objectives are considered legitimate and are included in the analysis.
- Third, sensitivity to "value left on the table" refers to an acknowledgment 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).
- Fourth, a focus away from equilibrium analysis and toward perceptions of the zone of possible agreement essentially means that the situation is incompletely determined and parties may themselves construct the situation (Schelling, 1960; Sebenius, 1992). 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.

Negotiation Analytic Framework for Project Sales and Implementation Process

This section employs the theoretical body of knowledge in the negotiation analytic approach to construct a negotiation analytic framework for project sales and implementation process. In this framework, the basic elements are: structure of the negotiations, flow of the negotiations, and outcomes. The meaning and application of these elements in the context of project sales and implementation process is analyzed in the following.

Structure of the Negotiations

The structure of negotiations is, in a sense, the snapshot of a negotiation situation outside of the time dimension. It is continuously redefined during the negotiation process. The requisite concepts that define the structure of negotiations are parties, interests, issues, options, and *best alternative to negotiated agreement* (BATNA; Raiffa et al., 2002; Sebenius, 1992).

One of the distinctive features in the project sales and implementation is complexity, which primarily refers to the number of actors involved throughout the acquisition and delivery process (Cova & Ghauri, 1996; Skaates & Tikkanen, 2003). Even if we focus just on the customer and the potential suppliers, both of them often have multiple representatives. Because a project is often a solitary event for a project customer, the customer may use representatives who have adequate knowledge of the substance. They may participate in the actual face-to-face negotiations or have a more technical role in preparing tender documents and evaluating proposals.

The second 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). In-project business interests may relate to short-term project goals, customer-supplier relationships, or other business goals, such as getting a good reference case. Additionally, there may be different interests among customer and supplier representatives that have to be taken into account. Issues are decision variables with two or more resolution levels: that is, options. In general, the main issues under negotiation in the project context are delivery time, price, and scope. However, each of these items has to be broken down to a more detailed level for actual negotiations.

Parties negotiate in order to better satisfy the complete range of their interests through some jointly determined action (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. There is a game theoretical component underlying every negotiation: a party always has the option of taking unilateral action to pursue payoffs outside of the negotiations (Raiffa, 1982). A project customer may have better investment options and may decide not to invest on the project under negotiations. Similarly, any project supplier can decide not to participate in the tender, and seek business opportunities elsewhere.

Alternatives to a negotiated agreement also play a tactical role. Research shows that negotiators with more attractive BATNAs capture a greater share of the negotiation zone (Chen, Mannix, & Okumura, 2003) and can expect a better payoff from the negotiations. Thus, it is essential for a project customer to give the impression that there are alternative suppliers and not to commit to any single supplier too early in the sales process. This can be accomplished, for example, by a tender process, in which two or more suppliers are selected based on an evaluation of all the proposals to the

final contract negotiations (Cova et al., 2002).

Flow of the Negotiations

The flow of the negotiations refers to the behavior of negotiation parties and the interaction among structural elements in time. The behavior of negotiation parties can be classified into claiming value, creating value, or efforts to change the game itself (Sebenius, 1992). A phase model of the negotiations enables us to analyze negotiations as a process, and to link it with the phases of the project sales and implementation process.

In a purely distributive negotiation, the relationship between the payoffs for each of the parties is strictly negative (Raiffa et al., 2002). This is the case, for example, in final price negotiations, after all other issues are settled in the project contract negotiations. In this type of negotiation, claiming behavior—that is, increasing payoffs for a single party—is the only alternative for both parties. Project suppliers may avoid this situation, in which they often have a rather weak position, by keeping options related to technical issues open until price has been settled.

In integrative bargains, searching for joint gains is possible; that is, the payoffs to one or both sides can be improved without weakening the payoffs to any party (Raiffa et al., 2002). The main source of integrative potential comes from differences in preferences related to the negotiated issues. For example, a project supplier may demonstrate creative behavior by offering to implement a new technical solution, which provides a higher payoff to the customer, without additional costs. The payoff for the supplier comes, for instance, from an opportunity to develop and test a product that can be sold to other customers.

Negotiation is not simply creating and claiming the elements of negotiation within a fixed configuration; these elements may evolve or be intentionally changed during the negotiations. The

parties typically seek to learn about their own and the other side's situation and what is jointly possible, for the purpose of advantageously influencing their own or the others' actual or perceived situation and favorably changing the parties, issues, or options under negotiation (Young, 1991a). The project marketing literature recognizes this type of supplier behavior as the constructive approach to project sales and marketing (Cova & Hoskins, 1997).

The flow of the negotiations proceeds through several distinct phases (Douglas, 1962; Morley & Stephenson, 1997). Lewicki, Saunders, and Minton (1999) came 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) adopted a similar, three-stage model: prenegotiations, around-the-table negotiations, and packaging agreements. The origin of a three-stage model can be traced to Simon (1960), who described three stages of decision making: 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. The purpose of the phase model is to describe the general patterns with which the elements of the negotiation are constructed, and the way that the contracts are formed and renegotiated. In Table 1, the phase model of negotiation is compared with the phases of the project sales and implementation processes of Cova and Holstius (1993).

Outcomes

Addressing options for each of the issues is the basis for the creation of a contract.

This determines a payoff for each party as measured by the degree to which the contract satisfies the interests of the parties. A contract or tentative settlement in this discussion refers to any written or verbal agreement during the negotiation process that fixes options of the issues under negotiation. The objective in negotiations is to reach a contract, which can be analyzed in terms of feasibility, potential, surplus, domination, efficiency, and impact (Raiffa et al., 2002; Underdal, 2002; Young, 1991a). However, any tentative settlement or project contract is inherently incomplete (Turner & Keegan, 2001). It is subject to adaptations and interpretations and further negotiations in the later phases of the project life cycle.

The set of feasible contracts is called the zone of possible agreement (ZOPA). A contract is said to be feasible if it is individually rational for each party; that is, if it assigns to each party a payoff that is at least as good as that party's BATNA. If the contract is not individually rational, a project customer probably would select an alternative supplier or decide not to implement the project. The same applies for a project supplier; however, in competitive situations, a party might be forced to sign a contract that is not initially rational, but one that gives opportunities for improvement during the project delivery phase (Cova & Hoskins, 1997).

For any contract, the surplus to a party is the difference between the payoffs associated with that contract and the party's BATNA (Raiffa et al., 2002). The concept of potential refers to the maximum surplus a party can receive, associated with a contract, when the other parties' surpluses are zero; that is, where the payoffs are driven to the BATNA levels. For example, by keeping options open as late as possible and fostering competition, a project customer may be able to realize most of its potential and increase its payoffs.

A contract is dominated if there is another contract that leaves none of the parties worse off and is preferred by

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| Phase of Negotiation (Berridge, 2002; Simon, 1960) | Negotiation Content | Project Phase and Its Content (Cova & Holstius, 1993) |
|---|---|--|
| Intelligence or Prenegotiations | 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 supplier; 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 that 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. |

Table 1: Conceptual comparison of the phase model of negotiation with the phases of the project sales and implementation process.

at least one party. The efficient boundary consists of the complete set of nondominated contracts. A contract is thus efficient if all potential gains are realized. In principle, if all information related to issues, options, and payoffs is available, rational negotiation parties should always conclude with an efficient contract. Thus, one of the objectives for project negotiations should be to maintain opportunities for improving a contract during the later phases of the sales and implementation process when more information is available.

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 (Young, 1991b). 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).

Finally, an important distinction related to outcomes is between expected payoffs—that is, the contract—and actual payoffs—that is, 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. 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. As the impact is often difficult to capture in the project contract, it must include (negotiation) practices that can be used to improve it during the project delivery process.

Summary of Negotiation Analytic Framework

The concepts of this approach form a logically consistent, complete framework, oriented around the perceptions of the zone of possible agreement (ZOPA; Sebenius, 2002). The main items in the framework are the structure of the negotiations, the flow of the negotiations, and the outcome, which were described in the previous chapters. The general representation in Figure 2 visually summarizes the framework of project negotiation analysis, with respect to the simplest negotiation between two parties, project customer and supplier.

Negotiations involve a set of two or more parties, which are bound interdependently 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

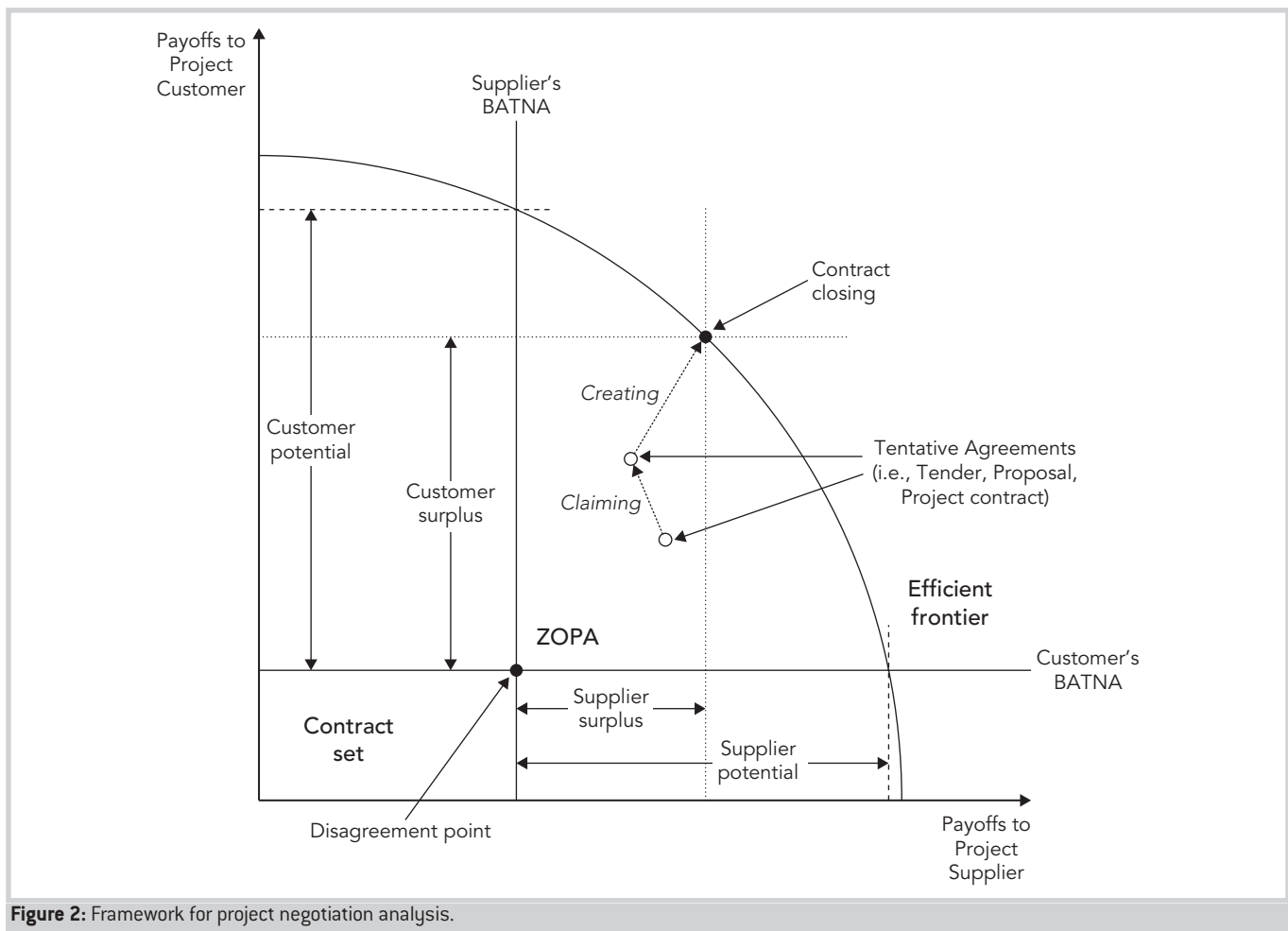


Figure 2: Framework for project negotiation analysis.

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 available contract set. BATNAs represent the constraints, which, together with the contract set, define the 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 (Sebenius, 1992).

Project Negotiation Strategies

This section constructs a view on applying different project negotiation strategies in different phases throughout the life cycle of the project. This way, the negotiation analysis framework is further developed toward a tool that can be used to create and analyze negotiations strategies. 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, that a negotiating party may choose to rely on in order to attain as favorable an outcome as possible, and could as well be dubbed a negotiation maneuver.

In the different phases of the project, both the customer and the supplier should understand the structure of the negotiation, plan which strategies they want to use within that structure—or develop strategies to change the structure—and define objectives for each tentative settlement. Figure 3 presents an illustration of a tool of thought for mapping negotiation process. The main objective for use of this tool is to guide negotiators to prepare for negotiations by taking into account all available information and to create a shared understanding of the role of each member in a negotiation team and which type of negotiation strategies should be used.

In each phase of the project, both project customer and supplier should

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| | Search | Preparation | Bidding | Contract negotiations | Implementation | Transition |
|---------------------------------|--------|-------------|---------|-----------------------|----------------|------------|
| Structure of the negotiations | | | | | | |
| Flow of the negotiations | | | | | | |
| Desired outcome from this phase | | | | | | |

Figure 3: A tool for documenting both the results of the negotiation analysis and appropriate negotiation strategies in different phases of the project sales and implementation process.

prepare for negotiations by first analyzing the structure of the negotiations. The analysis of the structure of the negotiation includes identification of negotiation parties and their interests, issues, options, and BATNA. This analysis has to be done in each round of negotiations, because structure of the negotiation is influenced by negotiation strategies and outcomes from negotiation in the previous phase. Understanding the structure of the negotiation enables negotiators to understand their negotiation power and to create credible objectives for each phase of the project. We distinguish between two major types of strategies that are used parallel in each phase: (1) strategies to change the structure of negotiations and (2) strategies to claim or create value. Negotiation objectives and outcomes can be evaluated using the following criteria: feasibility, potential, surplus, domination, efficiency, and impact.

Supplier's Negotiation Strategies

A project supplier has two basic approaches in reacting to project opportunities, which are termed the deterministic and the constructivist approach (Cova & Hoskins, 1997). The

constructive approach refers to activities aimed at becoming involved in shaping the competitive arena and the rules of the game (Cova, Mazet, & Salle, 1994). For example, a supplier can seek to influence both technical issues in the tender documents and the customer's interests, the criteria with which the customer evaluates possible proposals in such a way that the supplier appears more favorable in relation to competing suppliers. Applying the concepts of the negotiation analytic framework, this translates to worsening the customer's BATNA.

In general, supplier strategies often focus on how to get into position, where there is less or no competition (project contract has been signed), and the supplier can get all necessary information from a supplier to create a technical solution to solve those problems. Although suppliers may use this position for claiming behavior, we should also take into account that negotiating parties might not choose to disclose their full confidential information until after they have come to an agreement (Raiffa, 1982). Only after a tentative agreement might negotiators be willing to confide information and search for

joint gains—that is, better agreements. Table 2 shows four sample negotiation strategies for the supplier.

Customer's Negotiation Strategies

Market creation strategy for a customer aims to create and maintain a competitive situation, in which the customer has several alternatives to choose from. In addition, the customer may decide to go to the market to satisfy stated business needs and leave it for the suppliers to propose technical solutions. This may turn into more integrative potential in the later phases of the project sales and implementation process. Negotiations between the customer and supplier can be transformed into auctions by including other contractors in the game (Raiffa et al., 2002). Cova et al. (2002) introduced different types of tendering practices, which the customer may use to maintain a competitive situation. The main issues to decide are the selection of the supplier to include in the tender process, and the decision of whether proposals are evaluated based on price or the overall quality of the proposal. If the only issue under negotiation is price, only claiming strategies are available. Evaluation

| Strategy | Description | Negotiation Analytic Interpretation |
|-------------------------------|---|---|
| Project framing | Supplier becomes actively involved in the shaping of the customer's interests or perceived alternatives so that the supplier appears more favorable in relation to competitors. | Customer's BATNA shifts to a lower level, increasing the potential of the supplier leading to higher expected payoffs. |
| Captive pricing | Supplier seeks to win a contract by submitting an extremely low bid and to make profits in later stages through contract claims. | Supplier 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 | Supplier makes recommendations on project plan or implementation after submitting a bid against tight specifications. | Supplier changes the zone of possible agreement by introducing new options for negotiated issues, new issues altogether, or by influencing the interests of the customer, and thereby gains additional payoffs. |
| Acceptance test | Supplier receives approval from customer for completing a certain subsection of the contract. | Supplier secures a new BATNA, and may anticipate further changes in the contract whereby additional gains are realized. |

Table 2: Supplier's sample negotiation strategies.

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

Table 3: Customer's sample negotiation strategies.

based on overall quality provides more opportunities for strategies to create value in the later project phases. Table 3 shows four sample negotiation strategies for the customer. The strategies are: market creation, competitive sealed bid, bargaining rounds, and variation orders.

Discussion and Conclusions

This study builds on our previous research on project negotiations. It conceptualizes the project sales and implementation process as a negotiation problem. A project is interpreted as a process of joint decision making in which negotiation parties need to

select and commit to a course of action that is superior to unilateral alternatives. Such a course of action results in payoffs that none of the parties could achieve alone.

For managers who are responsible for project negotiations, the results of this study enable an understanding

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of the essential elements of systematic and beneficial negotiation strategies in project sales and implementation. This is important, as 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 approaches used to manage (project) negotiations are relatively unsystematic, and most negotiators have had little formal training on the subject (Lewicki et al., 1999). Negotiators rely predominantly 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 understanding of real-world negotiating situations (Raiffa et al., 2002). The negotiation analysis approach creates awareness of the structure and flow of negotiations, and may ultimately help to change negotiation games to become more favorable to negotiators. The conscious direction of attention toward the structure and flow of negotiations is the route to intuitive application of the concepts and, ultimately, more favorable negotiation outcomes.

Negotiation analysis provides a theoretically well-founded methodology for preparing and managing project negotiations. 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). The negotiation analytic approach relies heavily on the model of rational decision-making behavior, in which negotiating parties always calculate; that is, define their objectives, enumerate their alternatives, evaluate the alternatives against the objectives,

and choose the best alternative. The negotiation analytic approach can be complemented with other theories, such as transaction cost economics (Williamson, 1996), which explain the rationale for different paths of contracting or the causes of deviations from rational behavior and how they should be taken into account in the negotiation process and contract.

In real-world 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; that is, which are efficient.

In principle, the negotiation analysis approach could be used to quantify a 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. Such 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 the negotiation analysis perspective include the following:

- 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.
- Analysis is necessary to "correct" people's intuitions, and the benefit of systematic preparation may be significant in attaining desired negotiation outcomes. Moreover, although experience and intuition are highly important, it is difficult to codify and transfer them between negotiators.

- The main integrative potential in negotiations comes from differences in the way that each party values the issues under negotiation. It is important to identify and analyze these differences to create win-win contracts. Reciprocal open and truthful sharing of information and creativity helps the parties to identify integrative potential. Project sales and implementation processes, as well as purchasing processes, should be designed in such a way, that they provide opportunities to renegotiate issues in later phases of the project, when there is more information available.
- For the best outcome, negotiation parties should always seek opportunities to change the negotiation structure (e.g., issues under negotiation and their options) during negotiations for a better outcome. An important factor to consider is that all decisions made during the negotiations are based on subjective perceptions of negotiation parties. It is possible to influence the way that the other parties may value different outcomes (e.g., a customer can emphasize the value of a continuous business relationship resulting from this project).

In this study, we introduced different sample negotiation strategies to illustrate how the negotiation analytic approach could be used to describe and analyze project negotiations. Further empirical research is required for a more thorough understanding of different empirically applicable strategies and their effectiveness in different contexts and situations. We also need in-depth case studies about the effectiveness of various negotiation strategies in different cultural and institutional contexts. ■

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