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Negotiations structures and principles

Modern international business develops in the context of rapid social and political changes, which contributes to changes of the economic and cultural priorities, changes in thinking and behavior. It brings new demands for international business negotiation strategy and implementation.

In order to prepare the negotiations adequately it is necessary to know the basic principles of negotiations, and to use them in the negotiation process. Then the final results will be more successful. Having missed some important elements, the essential means of influence on the negotiations outcome can be undetected. These principles are also essential when modeling negotiations situations in nego-

tiations support systems. Development of negotiation strategy invokes diverse modeling schemes of negotiation processes. Knowing the main principles of negotiations can be foreseen possible actions of the negotiations other side.

Preparations for negotiations are one of the most often discussed issues in literature. In order to prepare adequately for a negotiation it is necessary to know the basic negotiating principles, which effective use might help in negotiation process.

Structure of negotiations

Negotiation strategies may be linked with the negotiation structures. The negotiations structure will depend on which negotiating strategy will be applied. Strat-

Figure 1 Typology of negotiation models

		Negotiation models	
Electronic		Verbal	Mathematical
Negotiation support systems (NSS) E-negotiation table (ENT) Negotiation agents-assistant (NAA)	E-negotiation software agents (NSA)	Process model Phase model Element model Constraints model Intervention model	Ongoing economic (mainly universal models) Discontinuous, mostly game theory models The hybrid model

Source: compiled by the author.

egy and negotiation factors (time, agenda, communication and media), are very important in such situations. In the scientific literature can be found various negotiations structures.

The structures of negotiations in organizations and between organizations are very similar to the organization's management theories. Of course, both negotiations parties may have the same management structure, but the negotiations structure can be different. Negotiations can be more or less formal and it affects the team's mobilization, resources, communication system and negotiating behavior. Negotiation models are based on the belief, that there is one best solution for each negotiation problem, patterns can show what the ideal negotiator (intelligent, rational) should make competing in interactive situation. However, in reality it does not work. So these models can show only one of many possible outcoms.

Negotiation models are classified as mathematical, electronic and verbal (nonmathematical). Mathematical of negotiating (continuous, economical, universal) have precise results (theoretical calculations), which can be calculated through the mathematical analysis. They have not semantically-related problems, which may be improved by adding links and items, and so on. But these models depend on the negotiator's rationality and advantage options, have a mathematical constraints, are not basic factors determining the outcome of negotiations, and do not accept solutions on separate objects of negotiating dispute.

In mathematical models of negotiating (continuous, game theory) are used instruments of theoretical algebra. These models can be realistic mathematical assumptions, can be considered as separate negotiations, and empirically tested (easiest to do this with both negotiating sides), also determine the best result. In the game theory models there are relatively

few semantically related problems, and the conceptual basis can be modeled and changed. However, this model depends on the negotiators rationality, and its predictability is questionable as there is direct communication. Also there cannot be examined multilateral situations (more than 2). At this model cannot be analyzed repetitive or dynamic negotiation processes. It is also impossible to know the values of benefits at every step. These models can be zero-sum or variable sum where there may be two or more participants.

Hybrid mathematical model of negotiations depends on its nature. It can be a combination of economic and game theory or other mathematical models. Such models are usually created to model a particular situation. In this model is used the mathematical language. Kersten and Lai provide definition of electronic negotiations typologies concepts: Electronic negotiations systems (e-negotiation systems, shortening ENS) is a model that employs Internet technologies, it also is placed on the network with the aim of facilitating, organizing, supporting and/or automation of negotiators and/or third party activities¹⁶.

Negotiation support system (NSS) is a program which implements the models and procedures, has the communication and coordination facilities, and is designed for two or more countries and /or for existing one third party business negotiations.

Boards of electronic negotiation (e-negotiation table – ENT) is a program that provides a virtual space for negotiators (bargaining boards) and tools that they can use for the performance of negotiating activities.

E-negotiation software agents – the NSA program, which is actively involved in significant part of the negotiations and carry out the decisions on behalf of human or artificial basis.

Negotiation agents-assistant - NAA is a software agent which provides for a

Issues (I) Entities (E) Entities' Objectives **Entities** Entities' Rules Acceptance Intervenor (A) Strategies of Negotiation (R) Regions (S) (ACCEPT) Moving (M) Locations

Figure 2 Interdependence among primary parameters of negotiation

N = (I, E, ACCEPT, LOC, S, M, R, A) here:

N - negotiating activity,

I – negotiating issue, \acute{E} – number of participants, ACCEPT – limits of participants favor, LOC – positions of participants, S and M – strategies and actions of participants, R – rules of negotiations, A – effect of the intervention.

(LOC)

Source: Hipel K.W., Hegazy T., Yousefi S., Combined Strategic and Tactical Negotiation Methodology for Resolving Complex Brownfield Conflicts, "Pesquisa Operacional", 2010, Vol. 30, No. 2, pp. 281-304.

timely human negotiator and / or third party advice, criticism and support according to the specific context.

E-negotiation software agents - this verbal negotiation process model provides a realistic description of the comprehensive negotiation process, in which can be examined factors affecting the negotiation process. This model lets you to add to it an unlimited number of variables. Unfortunately in this model is not defined the consensus threshold, and semantic problems are emerging. The result of "balance" is not examined. Empirically is difficult to verify this model range, so here just few variables are analyzed. It is difficult to analyze the consistency of events. In this model is used the verbal theory and Boolean algebra.

Verbal negotiation phase model allows to analyze the negotiations that lead to the collapse or the agreement. This model provides a realistic description of the negotiation process understandable factors, which can affect the negotiation process, as well as lets you to add an unlimited number of variables. Unfortunately in this model is not defined the consensus threshold, and also appear semantic problems. The result of "balance" is not explored. Empirically is difficult to verify the model range, then are surveyed only a few variables. This model uses the language of verbal interaction analysis and Markov analysis.

Verbal element model presents an opportunity to analyze negotiations mathematically through vector analysis. This brings a clear description of the negotiation process and touches on the psychological elements that affect structure. May be examined factors that act in the negotiation process, as well as let you to add an unlimited number of variables. The model does not define the consensus threshold, and semantic problems appear. The "balance" of the result is not indicated. Empirically is difficult to test the

model range, therefore were analyzed just few variables. It is difficult to analyze the events of consistency.

Verbal restrictions model provides a realistic description of the comprehensive negotiation process. Here are considered factors that act in the negotiation process, and you can to add an unlimited number of variables. This model defines the consensus range, and gives greater possibilities to empirical testing than other models, provides insight on the consistency of the negotiating events. The result of "balance" is not examined. There is a semantic problem. This model does not take decisions on individual bargaining controversy matters, and uses the verbal counting.

Intervention model. This model best assess the nature of negotiations. There can take place mediation, fact-clearance processes, and arbitration, legal restrictions originated on the negotiating parties' agreement, deadlock, and objections.

Hybrid verbal negotiation model depends on its nature. This model can be created in order to adapt it to the specific situation, using other models of the verbal negotiations. In this model are primarily used verbal language, and other elements.

It is noted that an individual cannot influence the group. An individual rarely

Principles and conditions on granting concessions

negotiates against a group, because the group has more resources, more power and potential of manipulation than he.

Modeling negotiations on these models should be kept in mind, that these measures can demonstrate only one of the possible outcomes, but the work on these models can help you prepare better for the negotiation. Modeling the various negotiation situations can be discovered and unexpected outcomes of the negotiating results and possible alternatives of evaluation can only increase the success of the final outcome. The more information (visual bargaining context) in negotiations would be generated, the process of negotiations will be better.

Parameters and principles of negotiations

In creating strategies for negotiations should be considered diverse negotiation simulation schemes. By modeling negotiations and possible situations is necessary to examine the key negotiation parameters, and to rely on the basic principles of negotiation. If any important element is missed, may be overlooked essential measures of influence on the negotiations outcome. Studies of the process of negotiation and its structures^{14, 28)} showed that negotiating activity can be characterized by eight parameters (Figure 2).

Table 1 Working with the principles of concessions

Strong negotiator	Weak negotiator	
Do not mention about concessions themselves.	Do not mention about concessions themselves.	
Even if the concessions are requested, the matter is postponed to the end of the interview. This is done on purpose to get the time to prepare their arguments.	Just give him a discount if you ask.	
Strong negotiators offer a concession in exchange for something.	Just give a concession.	
Concessions are given in dose in small parts.	Concessions are given in large parts.	
Concessions are proportional to the size of the exchange rate.	Concessions size is proportional to the pressure force.	
Strong negotiators believe in value proposition.	Weak negotiators do not believe in proposal value.	

Source: compiled by the author.

Wasfi and Hosni identified the key negotiation parameters²⁸⁾:

- Negotiating power. Power may be legitimacy, knowledge, risk taking, time, and commitment.
- BATNA. Level of requirement, beyond which the negotiator is not inclined to come down.
- Aspirations level. Negotiator target. Aspirations level is mostly the first proposal of the negotiator.
- 4. Time pressure. If negotiator is more constrained by time limitations, he is in weaker position. Time is an important factor in negotiations, which affects other parameters.
- Structural and communication actions. The structural action is a specific proposal. Communication actions can shift structure of the bargaining power by informing the opponent about negotiator's intentions.
- 6. The economic benefits. Negotiator's choice is determined by general human desire to maximize their benefits from an economic perspective position.
- 7. Concession and the resistance forces. Negotiators influence oppositional resistance force. Which progressive reduction leads to an agreement? Resistance force reflects the negotiators natural unwillingness to retreat from primary positions, but the concession force pushes them to get closer to an agreement.
- 8. Structuring the bargaining context and approaches distributive and integrative.

In negotiating distributive context happens that the objectives of one side of negotiations in principle are in conflict with purposes of the other side, and there is no objective approach to compromise – here winning of one side is losing of another side²⁸⁾. Integrative negotiating context may arise when negotiating objectives are not fixed at a given point (the range), and negotiators are disposed to integrate

at an appropriate degree. Integrating potential exists when the problem is solved in a way, which allows giving benefits for both sides, or at least winning of one side does not losing of another side at the same degree. Relations between the negotiating parties are exposed of such attitudes as friendliness, hostility, trust and respect²⁸). In negotiations are very important principles and conditions on granting concessions. The Table 1 presents principles and conditions of strong and weak negotiators concessions options.

Properties of the negotiator can be described in two categories – power and strategic profile²⁸⁾:

Negotiator power: Power is an important factor assessing strength of agreement and influencing the negotiator; the more power has one side, the less is force of agreement. Negotiating power of the same negotiator may vary. Depending on given circumstances changes in negotiating situations may occur as a result of communication actions. Negotiation situation can form the following topics:

- Commitment: how strong is the objective of a negotiator.
- Legitimacy: a legitimate criticism has more power than illegal one.
- Knowledge: this one who has more information can be better negotiator.
- Risk-taking: a negotiator who is able to work in a larger uncertainty can do more.
- Determination plays a key role in taking high-risk decisions and actions that can provide significant benefits.
- Time limit: negotiator who is more restrained in time is weaker. Time is a crucial factor in negotiations, not only as a resource but also how its flow influences on the negotiations, and their solutions.
- Perception of opposing party power: its power can be judged from the opponent's actions. The power outlets depend on the opponent's power.

Figure 4 Prisoner's Dilemma

		A		
		Cooperation	Denunciations	
В	Cooperation	2 years / 2 years	5 years / 0 years	
	Denunciations	0 years / 5 years	4 years /2 years	

Source: Alfredson T., Cungu A., Negotiation Theory and Practice, FAO Program, "EASYPol", 2008, 179.

• Strategic profile: resistance to compromise shows the negotiator's natural unwillingness to agree when he is affected by force of agreement. The weak force of the agreement makes it easier to refuse the compromise, and the stronger force compels negotiators to agree. A strategic profile is designed in dependence on what negotiable strategy is: strong or weak.

Outlined below are different sources of the negotiation principles that deal with them in different ways: emotional control, smooth operation and better understanding of the other side.

Moore and Woodrow²⁴⁾ published the principles of international negotiations: establish common culture "topography" – beliefs, attitudes, behaviors, procedures, and social structures that shape people's interactions; identify potential dangers, obstacles and pleasant surprises that intercultural travellers and negotiators may miss if they do not have a reliable guide; choose the answer that will encourage successful interactions and outcomes.

Fisher and Shapiro⁸⁾ provides the following emotion-related negotiating principles:

- 1. Evaluation.
- 2. Respect for autonomy.
- 3. Making a connection.
- 4. Knowledge of status.
- 5. Choosing the right role.

Alfredson, Cungu¹⁾ describes these principles for negotiations:

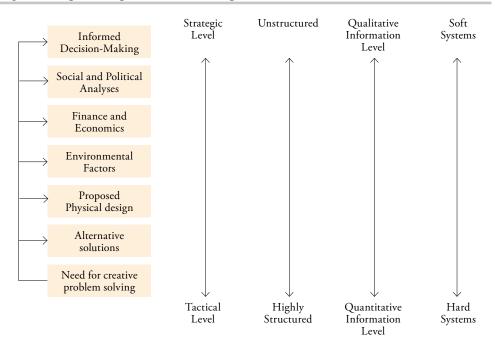
• To determine interests is necessary to establish the other side's position.

- The need to separate people from the problem, also the need to convey sincerity and trust.
- Alternatives. Negotiators should look for alternatives before and during the negotiations.
- Options. For possible agreement should look both sides, using both the brainstorming and past experience as well.
- Criteria/legitimacy. Negotiating requires the use of standardized criteria which would be for both sides explanatory. Also negotiation procedure must be consistent.
- Liabilities. Each side has to assess its ability to meet obligations. Failure to comply with them in the future may cause difficulties for further cooperation.
- Communication. Both sides should not only focus on their own preferences, but also must listen to the other side.
 Problems may arise in communication by articulating your position which other parts do not understand.

Misunderstandings can arise in communicating by different languages and with different cultures. Negative emotions can affect your ability to communicate well (the style and efficiency of the negotiations).

Preparing for negotiations is one of the most frequently mentioned principles in literature. Most of them are based on the self knowledge and the other side, qualitative communication conditions (questioning, listening, understanding, etc.), ethics, and the receipt of the information exchange and the principles of

Figure 5 Engineering Decision-Making



Source: Hipel K.W., Hegazy T., Yousefi S., Combined Strategic and Tactical Negotiation Methodology for Resolving Complex Brownfield Conflicts, "Pesquisa Operacional", 2010, Vol. 30, No. 2, pp. 281-304.

consistency, emotional control and their manipulation principles. But such principles, as "not to destroy the negotiator, to provide money from a different angle, bluffing", are mentioned much less frequently.

Game Theory

One of the best-known applications of game theory to negotiations is the Prisoner's Dilemma game (Figure 4). M. Dresheris and M. Flood made such experiments in the RAND Coorporation. R. Howard also independently conducted with the prisoner's dilemma.

The game represents following situation¹⁾: two prisoners facing prosecution for a crime. Each of them has to choose between two actions: to admit or not. If no one admits, in other words they cooperate with one another, each prisoner receives a two-year prison sentence. On the other hand, if both prisoners chose provide evidence against each other, both would receive a four-year prison sentence. The prisoners know that if one of them gives evidence against the other, the one

who gives evidence would not stay in jail. In prison will stay who refused to hand over a partner? He will get 5 years in prison. Each player does not know what the other is going to do. PD game shows, that a rational player will place a partner every time, because he understands that choosing the denunciations he will be more successful in the game, no matter what his opponent will do.

Negotiators face a similar challenge, because they do not have all information about intentions of another part. Negotiation scenario shows that cooperation is unlikely, because each country has an incentive to denounce in order to increase their own benefits. However, this result is a semi-optimal, because the players would be disabled if both of them will cooperate. In real life, cooperation occurs.

Decision-making

Regardless of whether the negotiations are taking place within the company or with external parties, they reflect the interdependent decision-making processes in which two or more parties can win

by cooperation¹²⁾. The impact assessment takes into account the case and reasonable decisions. Also takes into account the perception of the negotiators themselves the concepts and actions. For example, bluff, or manipulation of the term can mean different things to different people, and can depend on the negotiating environment⁴⁾. Decision-making in negotiations can be considered at strategic or tactical levels¹³⁾ (Figure 5).

On the left side Figure 5 there are main factors to be applied in choosing the right solution for a given problem. In decision modeling, any alternative solution must be evaluated taking into account environmental, economic and financial, political and social opportunities. Methods relying on a systematic approach and the results of research may facilitate the decision-making process¹³⁾. It should be noted that when there is a move from the tactical level to the strategic decisionmaking level, the problem is changing from a very structured and quantitative towards unstructured and qualitative. Hence, the problem has a bit simple well as complex system element. Because of these and other factors should be selected appropriate set of tools of the system, in order to examine all relevant aspects¹³⁾. Golenur¹¹⁾ writes that before starting the negotiation process, representatives must decide which options they would have, when moving towards the agreement.

The main decision-making stages of the negotiations:

- a) Analysis of the needs. Negotiator in the first stage is required to identify the other side needs, goals. This may also have an impact on creating the need for other side.
- b) Analysis of alternatives. The negotiator would clarify selection criteria of the other side. Also, the negotiator may influence additionally by offering more favorable extra proposals (unfavorable

- for competitors). Also, the following criteria should be justified, what is the suitability of the negotiator's proposal.
- Doubt stage. The negotiator seeing the other side of the negotiations, who don't make decision, must not to leave the other side in peace (allow him to think). Since the other side has doubts - it does need an advice. Therefore, the negotiator should be able to dispel the doubts, because other stakeholders (e.g. competitors or incompetent entities), can further to increase the doubts and disrupt the negotiations. Also, do not overdo it by pressing. In order to dispel the doubts of the other side it is necessary to identify the key uncertainties and their causes. Knowing the reasons for doubts is better to provide the arguments, which will dispel the doubts.
- d) Co-operative stage. This stage is focused on long-term relationships. Following the transaction the negotiator should be looking to the results, and post-negotiation situation will meet the other side of the negotiation. Because frequently may arise questions or opinions which can explain only the negotiator who made the deal, and, as in other cases responses to them can provide the others. Therefore, the best negotiator can be this one, who can solve all dissatisfactions. Further cooperation can become effective or not. It depends on whether the transaction is in line with the expectations of another side of the negotiation. These expectations may be formed both by another side of the negotiation and negotiator itself. Therefore, the negotiator must responsibly develop expectations of the other side of the negotiations, as it may get less than expected. Further attention to the other side of the negotiations, when the transaction was finished, for negotiator has only a positive value. The focus on other side dispels the possible negative aspects, as after the transaction has

been concluded he is still offering the help, so the other side of the negotiations can positively evaluate such signs of attention. All of this can serve downstream in cooperation.

 e) The situation changes stage. Here occur new needs and goals, and the decisionmaking cycle begins again.

Important decision-making processes require considerable time and intellectual input. In order to accelerate these processes and make them economically more effective, various decision support systems are being developed. There are a few support systems in distance negotiation, which use technologies to facilitate the negotiating process.

Conclusions

1. Negotiation strategies may be associated with the negotiation structures. On the structure of negotiating depends what negotiating strategy will be prepared. In the paper are presented the typology and negotiating models. Structure of negotiations in organizations and between them are very similar to the organization's management theories, of course, the two negotiating parties may have

the same management structure, but the structure of the negotiating may be different. Negotiations can be more or less formal and this affects the team's focus, resources, communication system and negotiating behavior.

- 2. In order to fully explore the negotiating process it is necessary to know and understand the key negotiation parameters and principles. Negotiation principles are essential in modeling negotiating situations and designing various negotiating support systems. The paper reviewed the scientific literature, here have been selected and presented the most often cited principles of negotiation. Most of the negotiations referred are based on the principles of self knowledge of the other side, on principles of communication quality conditions (questioning, listening, understanding, etc.), ethics, and principles of information acquisition and exchange of consistency, the principles of emotional control and manipulation.
- 3. Subsequent studies should investigate the principles for granting concessions and their impact on the final results. There is also a need to explore intercultural communication impact on the negotiations.

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