

A set-theoretic analysis of negotiations in Japanese MNEs: Opening up the black box

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Abstract

This article deals with international negotiations in multinational enterprises (MNEs), in particular the HQ-subsidary negotiations. The theoretical part of the intercultural negotiation framework (Ott, 2011) highlights the potential for MNE negotiation analysis. An empirical investigation into Japanese MNE negotiations strengthens the theory. Different time perceptions and strategies influence HQ-subsidary negotiations. The outcome of the fuzzy set Qualitative Comparative Analysis (fsQCA) shows that an integrative approach needs a higher offer with a margin of at least 20% to cover for relationship building, patience and trust.

Keywords:

Fuzzy Set Analysis,

QCA

Negotiation analysis,

Multinational Enterprises,

Culture

1. Introduction

Many international negotiations fail, and when they succeed, the relationships which develop could falter later and the origins of the failure may lie in the previous negotiations. A mismatch in understanding basic negotiation patterns of different cultures is often the reason for subsequent failure, as shown in the literature. Salacuse (1999) states that, for Americans, the negotiation ends in a contract, whereas, for cultures from the Far East, the signing of a contract marks the start of a relationship. There is little systematic analysis of the negotiation behavior between MNEs and subsidiaries. This article deals with opening the black box of international negotiations in MNEs and in particular those with Japanese HQs and their subsidiaries.

This article contributes to the literature in two ways. First, the intercultural negotiation framework facilitates the analysis of international negotiation behavior between the headquarters of MNEs and their international counterparts in subsidiaries. Second, the article links theory and evidence. The empirical focus upon Japanese MNE executives regarding their international negotiation experience gives a fascinating insight into the workings of Japanese MNEs (Tokyo HQ – international subsidiaries). To ensure confidentiality and adjust to a small number of cases (Ragin, 2000), fuzzy set Qualitative Comparative Analysis (fsQCA) combines an in-depth understanding of ethnographic interviews with a quantitative approach. The theoretical analysis and the empirical investigation provide scientific evidence for the relevance of the initial offer to anticipate a cooperative strategy, and in this way contribute to knowledge about negotiations within MNEs headquartered in the Far East. Furthermore, combining negotiation analysis with a fuzzy set Qualitative Comparative Analysis shows potential for further research.

2. Negotiating in Multinational Enterprises (MNEs)

Negotiation analysis in an organizational context is relatively young (Putnam, 2004) and would need more focus on multinational enterprises, since social interactions, negotiations and contracts are intertwined in organizations.

2.1. International Negotiation Analysis in Multinational Enterprises

An analysis of international negotiations in MNEs needs to consider the specific nature of MNEs compared to other forms of organization (Harzing and Sorge, 2003). Harzing and Sorge (2003) highlight that internationalization strategies are overall concepts of extending operations from domestic base to other countries as well as practices of corporate control in different cultural contexts in subsidiaries influence MNE negotiations. MNEs in the USA, Europe and Japan have different modes of control and ways of communicating, organizing and negotiating. Differences in mental models (Liu, Friedman, Barry, Gelfand, and Zhan, 2012) affect intercultural negotiations in MNEs. The specifics of negotiations within a reactive MNE (with headquarters in a reactive country such as Japan, Korea and China) require further exploration.

The research questions derive from the negotiation literature and the specifics of the MNE context: *How do the MNE negotiations come to a collaborative outcome in light of differences between HQ and subsidiary cultures? Why do Japanese (reactive) MNEs include higher margins in their initial offers in negotiations?*

2.2. Intercultural negotiation framework and the reactive negotiator

Distinct from previous frameworks, Ott (2011) proposes a game theoretical framework for different cultural negotiation styles in order to highlight co-operation and conflict that relate to activity types (linear-active, multi-active and reactive negotiators - LMR). This approach emphasizes the likely clash of cultures in nine scenarios. Ott (2011) uses Buyer-seller experiments to support the analysis. To evaluate this framework further for organizational situations, cooperation and conflict between specific cultural combinations are of particular interest. HQ-subsiidiary negotiations provide a research setting to study how the relationship between a reactive MNE and LMR subsidiary develop and unfold.

Ott (2011) connects cultural differences in bargaining behavior to the range of the initial offer. She shows that the players' strategies relate to the frequency of rejection and the valuation of time. The properties of the model comprise the linear-active, multi-active and reactive type of player:

(a) The linear-active player has a short-term perspective $\delta_L \rightarrow 0$. The player poses a concession with a short delay and the costs of bargaining c_L are low due to the short time horizon. Acceptance and rejection lead to the end of the game either with agreement or break-up.

(b) The multi-active player has a medium length term orientation $\delta_M \rightarrow 1$. The bargaining costs are high c_H , and the length of negotiations is longer than with the linear-active player.

(c) The reactive bargaining type has a long-term perspective $\delta_R \rightarrow 1$. The delay between offers can be long $\Delta \rightarrow 1$. The bargaining costs are high $c_H(t)$, and outside options are relevant even after acceptance $t = \{0, \infty\}$.

This article offers a new perspective by using a MNE HQ-subsubsidiary setting in table 1 below, instead of nine buyer-seller scenarios (Ott, 2011). The payoffs are MNE (HQ-subsubsidiary) utility functions $U(\delta_i) = p(\delta_i) - c$, $i=[L,M,R]$.

Table 1 here

The international negotiation analysis combines the constructs of a negotiation process with the cultural types of the negotiators in an MNE. Figure 1 below positions the MNE headquarters of a reactive cultural background and the respective subsidiary in order to show the cultural influence on negotiation style, strategy and outcome. The negotiation style in case of a reactive negotiator will be patient, win-win- and trust-oriented. The time horizon contributes to the cooperation and conflicts in terms of initial offers, negotiation strategy (costs, length), concessions, disagreement and cooperation.

Figure 1 here

2.3. International Negotiation Analysis of Reactive MNEs

The correlation between the trust building, patience, win-win strategy approach and the length of negotiations of reactive negotiators is in contrast to a short-term or haggling approach. This strategic approach for a MNE setting shows the complexities when the analysis adds the cultural negotiation strategies to the equation. In the context of MNE negotiations, the focus is on reactive types either as HQ of an MNE or as host of an MNE in a negotiation.

The Japanese HQ sends their managers to the subsidiaries (Harzing and Sorge, 2004) in a country of predominantly linear-active (USA), multi-active (Middle East) or reactive (Far East) employees. The following figure 2 shows the moves of the players and the strategic options for the players.

Figure 2 here

The diagram above shows the initial proposal of the MNE HQ player and the reaction functions of the host player and then the move of the MNE player as a reaction to the second player. The time in the negotiation is on the x-axis and the proposals/offers are on the y-axis. The concessions and the negotiation process over time reflect the bargaining process between different cultures. The agreement points and the out-of-equilibrium paths for the three types of negotiators with a reactive HQ visualize the cooperation and conflict.

The negotiation analysis for a reactive HQ and linear-active, multi-active or reactive subsidiaries shows that at time δ_L the linear-active host will accept a proposal of the reactive HQ, whereas it takes δ_M time for a multi-active to accept a reactive proposal. The equilibrium of two reactive negotiators shows how long it would take to build up trust for an acceptable proposal. The first proposition deals with these paths:

Proposition 1: If a reactive MNE HQ makes the initial offer with a margin of x% to include the coverage of the bargaining horizon, then the cultural values of the host will lead to a dynamic bargaining process with pre-mature acceptance (linear-active), break-down of negotiations (multi-active) or equilibrium (reactive).

For linear-active and multi-active subsidiaries, the initial proposal of a reactive HQ does not fit to their private values for the bargaining process. The reactive player will not reject due to losing face, but will delay the bidding process. It is too costly for the linear-active to continue when the margins do not cover the longer time horizon. The multi-active host will have a longer horizon than the linear-active, but will make more concessions and negotiate more emotionally than the reactive, with potential for conflict. In an organizational context, players can re-negotiate in these scenarios.

Proposition 2: If the subsidiary moves first in a host-offer game, then the reactive MNE will need to hold out in order to build up trust in an integrative approach as a signal to the hosts. It pays off to adapt to an international strategy for win-win solutions.

These propositions highlight the international negotiation patterns for the empirical investigation and fuzzy set QCA.

3. Methodology

Interviews give insight into the depth of reactive negotiation patterns in Japanese MNE to discover hidden processes. HQ-subsidiary negotiations provide a bigger picture of strategies and outcomes. Each interviewee delves into a long negotiation experience and shares hardest negotiation, bargaining strategies and height of initial offers with the interviewer. The fuzzy set Qualitative Comparative Analysis determines the cross-case analysis and the robustness of the results. The set theoretic approach provides a tool to analyze small-N cases and derives insights for the in-depth analysis of complex negotiations.

3.1. Sample and data collection

The participants are senior executives with experience as negotiators at the various functional and hierarchical levels in the HQ and subsidiaries. 22 participants from the HQ and subsidiaries make up 16 cases of HQ-host negotiators and 6 cases from host-HQ perspectives. The research process addresses the difficulty of getting access to sensitive data in a Japanese MNE. An interviewer from within the firm opens up information channels and supports trust-building with an ethnographic style interview. The majority of MNE managers abroad are Japanese, and their subsidiaries are in the USA (linear), UK, Germany (linear-active), France, Italy (multi-active) and China (reactive). The research considers the cultural background in two questions about the interviewees' original and target culture: a) where the respondents were coming from and b) in which country they are working. Japanese MNEs mostly send their own staff into their subsidiaries on a managerial level. This observation is relevant for the way the cultural and learned behavior unfolds. To keep the organizational culture constant is important and, therefore, the case analysis is in one MNE to study the cultural activity types, *ceteris paribus*.

The participants answered questions connected to the framework (Ott, 2011) and highlighted the importance of international negotiations, their hardest negotiations, their strategies, the height of initial proposal (+5%-10%; +10-20% or +50%) and whether they use emotion, logic or patience.

The coding of the answers transfers the theoretical constructs and questions into the following conditions for the fuzzy-set Qualitative Comparative Analysis (fsQCA):

- a) Adaptation to an International Strategy compared to domestic negotiations

- b) Win-Win Strategy
- c) Patience as a Strategy
- d) Initial Offer – Outcome correlation

The data of the cases are anonymous. The cases represent the influence of culture from a home and host country perspective. This classification goes both ways as there are managers who grew up in the USA, Germany, Belgium and China and who now work for this MNE in the subsidiaries.

3.2. Fuzzy Set Analysis

Fuzzy-set Qualitative Comparative Analysis (fsQCA) based on Ragin (1987, 1997, 2000, 2008) is ideal to show the causal effects between first offer, strategy, bargaining process and patience. This method combines qualitative and quantitative methodology to improve the analysis of cases with small-N or large-N numbers. Geckhamer (2011) and Kvist (2007) use fsQCA to analyze and classify types. Woodside et al (2011) and Woodside and Zhang (2013) use it for consumer behavior and provide new insights into behavioral issues. The results of recent articles (Geckhamer, 2011, Kvist, 2007; Pajunen, 2008; Schneider, Schulze-Bentrop and Paunescu 2010) show the strength of a configurational approach. Palmer (2006) emphasizes that qualitative methods are appropriate for those dimensions of organizational behavior which researchers find difficult to measure and that rigorous protocols now exist for conducting qualitative research (Ragin, 2000). Davis, Morrill, Hayagreeva and Soule (2008) similarly suggest that fsQCA may help generate knowledge of the organization of information and people across time and space.

In international business, Pajunen (2008) and Schneider et al (2010) use fsQCA for investigations into the institutional side of foreign direct investment and institutional capital of high-tech firms with regard to export performance. These insights into fsQCA strengthen the analysis of the negotiation model of MNE HQ-Subsidiary relationships. The configuration of cultural types in Japanese MNE negotiations fits into the fsQCA approach.

3.3. Calibration of conditions and outcome

The calibration of the responses of the interviews into fuzzy set properties and conditions follows in the next step. The table below shows the classification of the conditions into the membership of the sets (<0.25 ; 0.25 to 0.55 ; 0.55 to 0.8 and $0.8>$). The break-points show whether the condition belongs to an empty set <0.25 to a medium 0.25 to 0.55 ; 0.55 to 0.8 or to a full set $0.8>$, as appropriate for a fuzzy-set approach.

Table 2 here

The answers of the interviews belong to cases of negotiation behavior and show the degree of the membership in a set of each condition. The conditions reflect the coding of the interviews. Geckhamer (2011) emphasizes that cases with strong membership in a configuration are the most relevant consistent and inconsistent cases. The coverage relates to the overlap of the conditions of the joint sets. Consistency and coverage help the interpretation of results (Ragin, 2008; Greckhamer, 2011). Therefore, the consistency measure should be close to 1 to enable inferences that a subset exists, indicating that all cases that share a condition also share the outcome. The consistency benchmark is 0.90 for necessary and sufficient condition (Greckhamer, 2011) which is higher than Ragin's (2006)

consistency benchmark of 0.85. Raw coverage is the overall coverage of a combination that may overlap with other combinations and should be below 0.50.

4. Results

4.1. Qualitative Results

It is notable that, in the cases of negotiations between the Japanese HQ and cross-cultural subsidiary, the HQ-subsubsidiary negotiations feature patience, listening, collaborative strategies and consensus (see direct quotes below):

When we had a consensus built a scheme of global organization together with US, EU, Japan and Asia. I tried to understand mutual power-balance and our thought, led them to desirable meeting point (C12 Japan/USA)

Almost all negotiations seem quite hard in the beginning, however, reasonable logic, consistency and good faith can solve almost every very tough looking negotiation.(C13 Japan/USA, France, Italy)

Extreme 'Patience' is important. I started higher offer, but finally reach agreement that is close to counterpart. (Case 9 Japan/Singapore)

When you do not fully understand the view of the other party, then listen, ask open question, create atmosphere where they speak, open up, further facilitate the discussion (C 20 Germany, USA/Japan, USA).

4.2. FsQCA Results

In line with previous research (Ragin, 2006; Pajunen, 2008; Schneider et al. 2010), the causal conditions (INTSTRAT, WINSTRAT, PAT) are necessary conditions for the outcome, first offer (FOFFREA). Table 3 below shows the outcome. The consistency and raw coverage levels are significant.

Table 3 here

With the 'First Offer including 20% margin' as an outcome, there is a high consistency of 0.96. A high consistency measure (score between 0.91 and 1) means that a condition or a combination of conditions is necessary or almost always necessary (Ragin, 2006). The model considers the first offer as dependent on adaptation to an international strategy, win-win strategy and patience, such that first offer = f (patience, int. strat, win-win). Both the HQ-Subsidiary and the Subsidiary-HQ negotiations need this approach.

Truth table Analysis. The truth table analysis shows consistency of 0.86 and coverage of 0.80 as a logical remainder with intermediate, parsimonious and complex solution. These strong results show clear evidence that 'adapting to an international strategy' is necessary for the outcome. The truth table analysis reveals higher consistency for the negation of win-win (0.9) and the negation of patience (0.96) leading to an overall consistency of 0.87 when adopting an international strategy.

Table 4 here

Empirical importance. Ragin (2006) suggests the use of raw coverage and unique coverage to assess empirical importance. Schneider, Schulze-Bentrop and Paunescu (2010) show in their findings that raw coverage refers to the size of overlaps between the causal condition and the outcome sets. Additionally, their analysis uses unique coverage to control the overlapping explanations by partitioning the raw coverage.

The total coverage of all causal paths is 0.8. Most of the outcome is covered with the causal paths. In Japanese MNEs, negotiators use the reactive strategy to adapt to the counterpart in both HQ-Subsidiary and Subsidiary-HQ negotiations. The analysis suggests that the negations of win-win (WINSTRAT) and patience (PAT) are relevant when negotiators adopt the international strategy or when Japanese management adapts to an international strategy.

Necessary conditions. Regarding the necessary conditions, the causal conditions show that the combination of all three conditions is necessary (0.96), and WINSTRAT in combination with INTSTRAT are necessary conditions for the outcome of a reactive first offer (+20%).

Table 5 here

The joint set of all conditions - win-win, international strategy and patience - has very high consistency (0.96) and coverage (0.53) levels. The joint sets of two conditions, especially international strategy with patience and win-win with international strategy, have high levels of consistency (0.90 and 0.96, respectively) and coverage (0.61 and 0.58, respectively). Figure 3 of XY-plots for the joint sets with consistency above 0.88 supports the identification of asymmetric relationship for complex causal paths in international negotiations.

Figure 3 here

If negotiators deviate from a reactive, Japanese style adaptation to other strategies, then the result is a reduction in win-win and patience with implications for the first offer.

5. Discussion and Conclusion

5.1. Theoretical Implication

The intercultural negotiation framework (Ott, 2011) provides for a framework for the analysis of MNE negotiations. Insights into the agreement and disagreement points in negotiations in MNEs help the prescription of behavior in MNEs. Theoretically, a collaborative approach in MNEs is supported: an integrative negotiation process, trust-building approach and patience tend to reach solutions. Sending Japanese HQ-managers to subsidiaries ensures a more integrative approach and collaborations.

This result shows that when the costs of the bargaining process are higher than the price which a player offers, then the player needs to reconsider a margin to make up for longer bargaining processes. This decision is costly. The short-term perspective of a linear-active negotiator results in pre-mature acceptance at a point when the reactive would continue to negotiate to build a relationship and trust. Finally, the negotiation constructs - first offer, strategy and length of negotiations - lead to a positive outcome when the first offer as reflection of the cultural type includes the margin of 20% to provide the basis for trust, patience, integrative style and cooperation.

5.2. Empirical Implications

This article's analysis stresses the importance of patience in international negotiations. The analysis shows the correlation of patience with a win-win strategy and high initial offer. The empirical results support the theoretical framework and show the potential of a cooperative solution as a function of patience, win-win strategy and the adaptation of a player to an international counterpart. The first offer including a margin of +20% reflects a longer time horizon.

Of all relevant cases, six cases have a joint set of all conditions with a consistency of 0.96; furthermore there are three cases with international strategy and patience leading to the outcome with a consistency of 0.91. The fsQCA results show that the joint set of patience, international strategy and win-win strategy is necessary and sufficient to lead to an initial offer with a 20% margin. This pattern matches the reactive negotiation approach.

The contribution of this research lies in empirical evidence supporting the theoretical analysis that reactive cultures will hold out longer to cover their costs of relationship-building with a higher initial offer. Negotiators from cultures who do not accommodate to a reactive approach do not have their bargaining costs covered and are much more likely to be impatient and to pre-maturely end otherwise successful negotiations.

The article uses data of HQ-subsidary negotiations in a Japanese MNE. Such data are usually difficult to get access to. The analysis of these data with fsQCA supports the proposed theory. A long-term orientation, a cooperative approach and a high first offer

clearly lead to a cooperative outcome of international negotiations in a reactive-dominated MNE environment. These results can support and lead to a better understanding in international negotiations with different cultural types.

Negotiation analysis and fuzzy set QCA show that they can scientifically test international negotiation behavior in an organizational context of MNE interactions and negotiations.

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TABLES:

Table 1: Reactive MNE Negotiator with Linear-active and Multi-active counterpart in subsidiaries

Subsidiary	Subsidiary (Player II)		
Headquarter	Linear-active	Multi-active	Re-activeCulture
HQ (Player I)	Linear-active culture Similar cultural background with refinements <i>Scenario 1</i> ‘Time is Money’ – Approach <i>Example:</i> American HQ – German Subsidiary $(U(\delta_L); U(\delta_L))$	HQ linear-active and Subsidiary multi-active <i>Scenario 4</i> <i>Example:</i> American HQ – Brazilian Subs $(U(\delta_L); U(\delta_M))$	HQ linear-active and Subsidiary reactive <i>Scenario 5</i> <i>Example:</i> American HQ – Japanese Subsidiary $(U(\delta_L); U(\delta_R))$
	Multi-active culture HQ multi-active and Subsidiary linear-active <i>Scenario 6</i> <i>Example:</i> Brazilian HQ – American Subsidiary $(U(\delta_M); U(\delta_L))$	Similar cultural background with refinements <i>Scenario 2</i> ‘Haggling’- Approach <i>Example:</i> Brazilian HQ – Italian Subsidiary $(U(\delta_M); U(\delta_M))$	HQ multi-active and Subsidiary reactive <i>Scenario 7</i> <i>Example:</i> Brazilian HQ – Japanese Subsidiary $(U(\delta_M); U(\delta_R))$
	Reactive Culture HQ reactive and Subsidiary Linear-active <i>Scenario 8</i> <i>Example:</i> Japanese HQ – American Subsidiary $(U(\delta_R); U(\delta_L))$	HQ reactive and Subsidiary Multi-active <i>Scenario 9</i> <i>Example:</i> Japanese HQ – Brazilian Subsidiary $(U(\delta_R); U(\delta_M))$	Similar cultural background with refinement <i>Scenario 3</i> ‘Building trust’- Approach <i>Example:</i> Japanese HQ – Finnish Subsidiary $(U(\delta_R); U(\delta_R))$

Source: Adapted to MNE relationship from Ott (2011)

Table 2: Break-points for calibration

Variable (and label)	Definition for coding and Role in theoretical model	Coding gradations	Breakpoints
Win-win strategy WINWIN	The strategy is one condition which is a common feature of Japanese negotiation styles and explains the length of negotiations	0 none, 0.2 flat hierarchy 0.5 mid level 0.8 hierarchical, 1 fully	0.25; 0.5; 0.8
Adaptation to international strategy INTSTRAT	This part of a reactive style assumes that the Japanese negotiator behaves differently in International negotiations than in domestic negotiations	0 none, 0.25 collectivist 0.5 mid level, 0.8 individualist 1 high	0.25; 0.5; 0.8
Patience PAT	Patience is consequence of Japanese long bargaining horizon	0 none, 0.2 femininity, 0.5 mid level, 0.8 masculinity 1 high	0.25; 0.5; 0.8
Bargaining process starting with a high offer of 20% P_R FOFFREA	The initial price P_R is a function of patience displayed over the bargaining horizon, the co-operative strategy and an international strategy to cover costs of negotiating.	0 none, 0.2 femininity, 0.5 mid level, 0.8 masculinity 1 high	0.25; 0.5; 0.8

Table 3: Truthtable First Offer = f(win-win, int. strategy, patience)

win- win	int.strat	patience	number	first offer reactive	raw consist.	PRI consist.	SYM consist
0	0	1	1	1	0.97	0.96	0.96
1	1	1	6	1	0.96	0.94	0.96
0	1	1	3	1	0.92	0.84	0.86
1	0	1	3	1	0.81	0.65	0.75

Table 4: Truth table Analysis - (complex, parsimonious, intermediate solutions)

	raw coverage -----	unique coverage	consistency -----
~win-win	0.45	0.04	0.90
~patience	0.35	0.02	0.96
int.strat	0.69	0.26	0.86
solution coverage: 0.80			
solution consistency: 0.87			

Table 5: sufficient and necessary outcome: first offer = f(win-win, adapt, patience)

	consistency	raw coverage	combined
	-----	-----	-----
win-win* int.strat *patience	0.96	0.53	0.81
int.strat*patience	0.90	0.61	0.73
win-win* int.strat	0.96	0.58	0.72
win-win*patience	0.85	0.67	0.74
int.strat	0.86	0.69	0.59
patience	0.80	0.82	0.60
win-win	0.81	0.72	0.58

FIGURES:

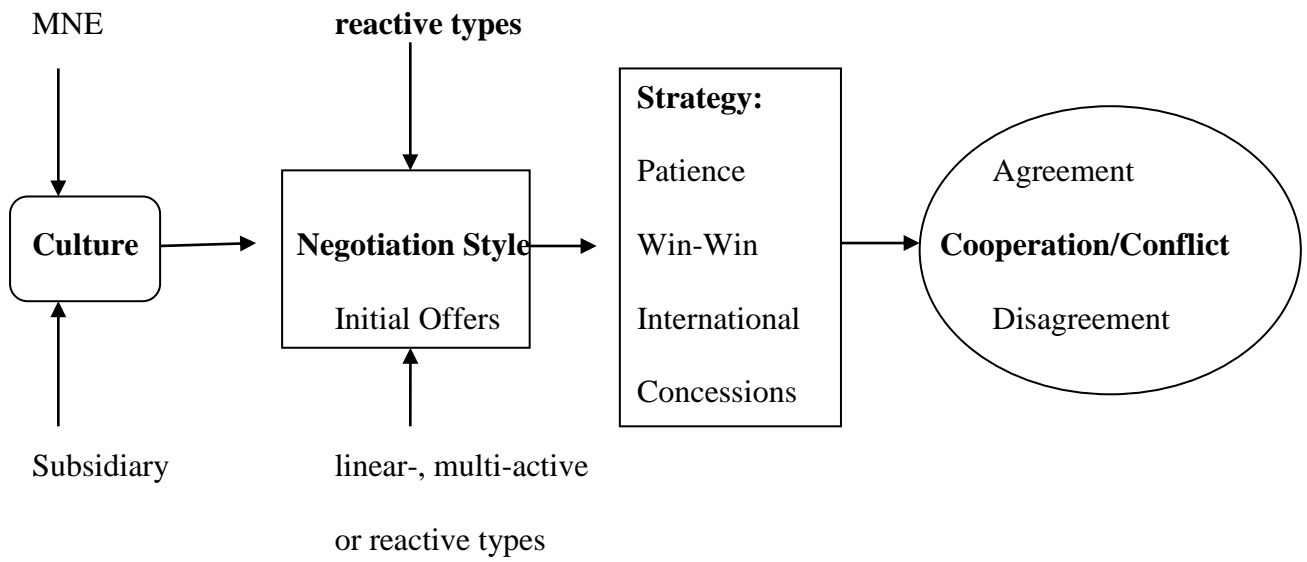


Figure 1: MNE-Subsidiary negotiation concept

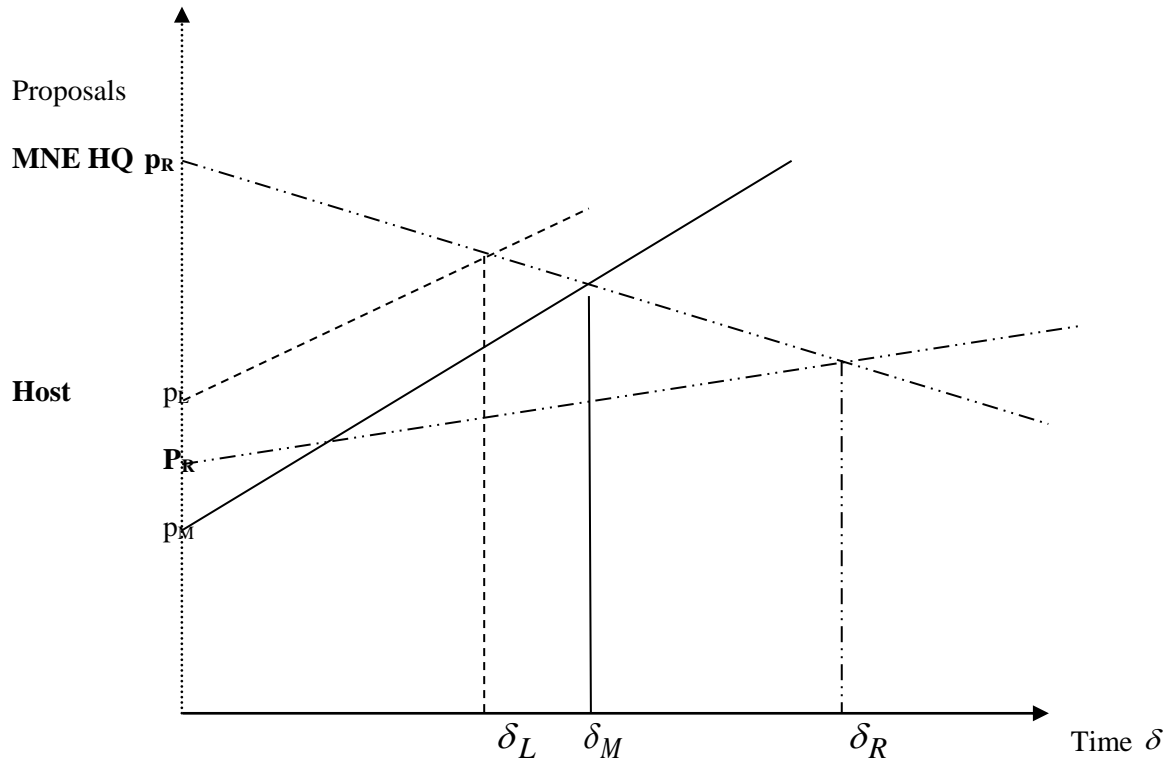
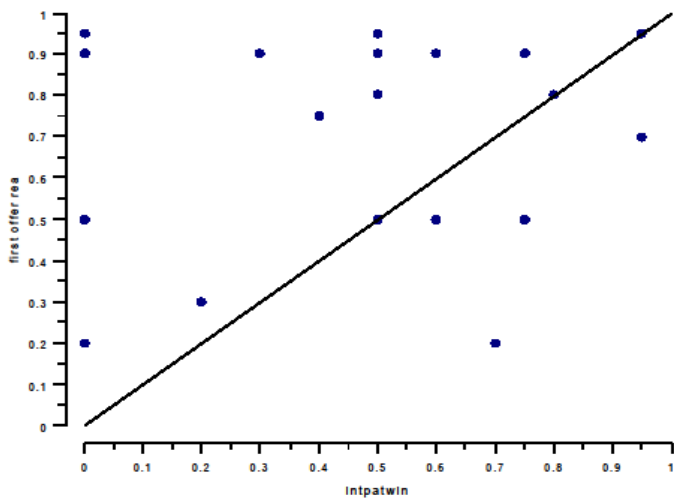


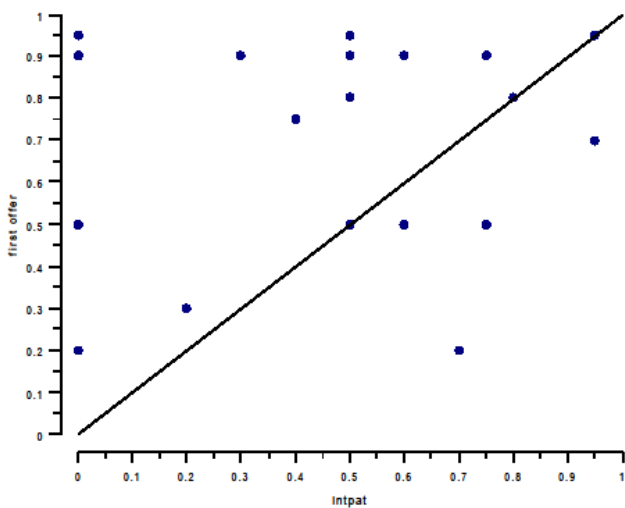
Figure 2: Reactive MNE negotiates with LMR host

Consistency 0.96



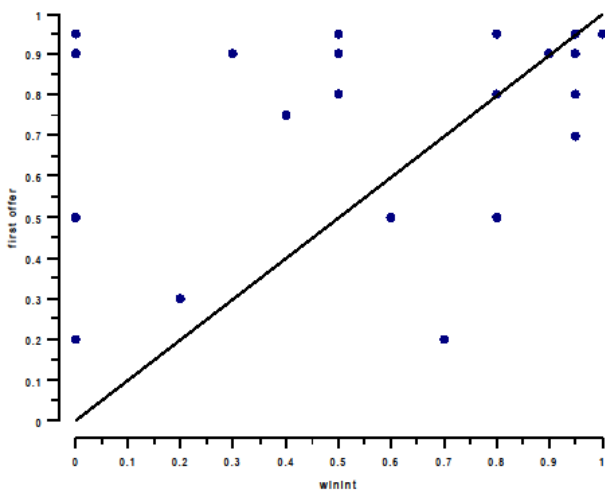
Coverage = 0.53

Consistency =0.90



Coverage =0.61

Consistency =0.96



Coverage =0.58

Figure 3: XY plots for necessary and sufficiency of the joint sets