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## Cognitive Negotiation Schemata in the IT Industries of Japan and Finland

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### ABSTRACT

*The existing literature emphasizes the importance of negotiation skills in the field of IT. However, negotiation and negotiation styles in the IT industry have received limited attention. This original empirical research compares the negotiation schemata of Finnish and Japanese IT business people. The study identifies negotiation schemata used in one or both culture groups. Negotiators with greater experience and power in the negotiation process command more schemata. However, neither population enjoys the full range of negotiation schemata. Business negotiators in or out of IT and these cultures may benefit from knowing the schemata and the results of matching and mismatching.*

**Keywords:** Negotiation; Finland; Japan; Information Technology; Schemata

### INTRODUCTION

In the information technology (IT) industry, where collaboration among various professionals and customers is important, different kinds of negotiation skills are needed. Although the IT industry appears very international and deeply collaborative (Whitehead, 2007), we can assume that practices of negotiation participants vary in different cultures, as negotiation styles are culturally associated (Adair, Taylor, & Tinsley, 2009; Nishiyama, 1999; Tinsley, 2001). That is, if two cultures differ considerably, negotiation styles might also differ. Although the existing literature highlights the importance of negotiation skills in the field of IT; negotiation styles per se have received only scarce attention in the field of IT. This lack has developed despite the literature showing that negotiation skills directly impact for instance IT and software outsourcing decisions (Davis, Ein-dor, King, & Torkzadeh, 2006; Kuivanen & Nahar, 2009), price negotiation of IT services (Vykoukal, Wolf, & Beck, 2009), IT project management (Abraham, Beath, Bullen, Gallagher, & Goles, 2006), and service contracts (Kim, Agrawal, Jayaraman, & Rao, 2003; Raghu, Woo, Mohan, & Rao, 2008) as well as among individuals involved in organization-wide IT implementations (Matsuura, Fuller, Kaufman, Kim, & Baba, 2013).

Based on the research gap discussed above, the research aim of this study is to increase our understanding of negotiation styles among negotiators in an era when technology outruns business management and business people must constantly refine skills for interacting. More specifically, the authors are interested in the negotiation schemata of business negotiators in the IT industry. Schemata refer here to the mental patterns that impact how people process

information (Colman, 2009). Boehm, Bose, Horowitz, and Lee (1997) called for new models applicable to software development yet none have appeared beyond their Win-Win Spiral, a process level approach that does not address situational thinking, communication, nor selection and application of mental models.

The knowledge targeted in this study helps us to better understand how IT negotiators apply various schemata in business negotiation and how different factors impact on availability and choice of schemata. The specific research questions are: i) Which schemata are in use among the current generation of Japanese and Finnish negotiators in the IT industry? ii) Do Finnish and Japanese IT negotiators change their schema based on situation? iii) Do age, level in company, position of the negotiator in the team or frequency of negotiation impact availability of schemata or choice of schemata? With this knowledge, IT negotiators may be able to develop better negotiation strategies and overcome some difficulties when interacting in a global business environment. From the theory point of view, this study expands the negotiation schemata literature with specific reference to technology business. In addition, this study contributes to the IT business literature by investigating to negotiation styles in international context.

For this study, we selected negotiators working in the IT industry from Finland and Japan as these two countries are distant in almost every way, geographically, linguistically, and in the measures of widely used cultural comparison tools (Hofstede, Hofstede, & Minkov, 2005; Ojala, 2015; Peterson, Wood, & Smith, 2008; Trompenaars & Hampden-Turner, 2012). As geographies with relatively homogenous populations, Japan and Finland are more likely to reveal variations when compared (Peltokorpi & Clausen, 2011) than locations where ideas, experiences, and personal origins mingle more freely. In addition, even though both nations are technology leaders, the industries in these countries differ significantly. For example, the Finnish software industry and its human resources are generally globalized, multilingual, and Agile management techniques are widespread (Rönkkö & Peltonen, 2012) whereas the Japanese software industry has a lack of skilled generalist managers, low pervasiveness of Agile management, and difficulties to internationalize their business (Inada, 2010). Further, Japan appears to have some unique business approaches (Ueki, Ueki, Linowes, & Mroczkowski, 2011) generally and in IT specifically (Krishna, Sahay, & Walsham, 2004; Ojala & Tyrväinen, 2007), including bonding and trust practices (Choi, Souiden, & Skandrani, 2012). Because negotiation is relationship oriented (Lewicki, Hiam, & Olander, 1996), impacts and approaches in Japan may appear relatively unique to Finnish and other “western” negotiators.

The paper is organized as follows: we first discuss the theoretical background of schemata, negotiation, and negotiation in the context of IT industry. Thereafter we present the research method and the results of the survey. Finally, we present empirical findings leading to concluding thoughts.

## LITERATURE REVIEW

### *Schemata*

Schemata theory is well established in cognitive psychology. Schemata refer to "mental representations of some aspect of experience..." that help interpret information (Colman, 2009). Beamer (1995) reviews schemata and describes them, following Casmir (1985), as mental structures used to interpret information. Casmir (1985) specifically indicates that these schemata

derive from the person's culture and abilities. Culture itself arises from experiences shared in time, geography, language and sharing meaning, norms, and rules though the same general experiences can create multiple cultures (Triandis & Albert, 1987). Cognitive style arises from culture at various levels including personality, family influences, professional, and broader societal influences (Kozhevnikov, Evans, & Kosslyn, 2014). Beamer (1995) further notes that schemata arise from cross cultural experiences, such as learning to bow in Tokyo. Schema can also arise from perceptions and interpretations (McMillen, 1991).

Schemata are found for not only concrete and abstract things, but also processes; these are referred to as scripts which may apply to business, negotiation, and even more specifically to gender nuanced business negotiation (Colman, 2009; Hanappi-Egger & Kauer, 2010; Taylor & Crocker, 1981) when they involve expected sequences of steps. Scripts develop from planning as well as experience (Turner, 1994). Nishida (1999) refers to script schemata as *procedure schemata* building on the work of Turner (1994). Specifically, Nishida's (1999) procedure schema includes not only a sequence of steps, but also contains information about the steps and expectations for counterparties. Additionally, Nishida (1999) specifies strategy schema for problem solving. If a negotiation is seen as a problem, or series of problems, to be solved, the negotiator's approach is a strategy schema that will impact their choice of actions. The concept of negotiation orientations as introduced more recently are highly personalized and variable and change with experience (Brooks & Rose, 2004), yet these do not include schema contents and schemata remain a more appropriate concept for this research.

Schemata are not a concept widely used in daily language, a typical English language user would understand words like *routines* or *routines for processes* more readily. However, *kata* (represented by the character 形) is a concept broadly familiar to Japanese speakers, "A *kata* is a routine that allows people to interact smoothly." (Alston & Takei, 2005). These authors describe *kata* as strongly norming scripts "...formal ways of behaving (*kata*) forcing conformity of behavior on everyone." Japan's *kata* are tantamount to schema as described in the literature cited above. *Kata* can be relatively rigid and formulaic such as those for business meetings or more flexible such as those for preventing loss of face by sharing blame among subordinates (Alston & Takei, 2005). Finnish uses the term *toimintatapa* or *omaksuttu toimintatapa* in a similar way.

Schemata, including *kata* and *toimintatapa*, allow business people to interact in predictable patterns thereby decreasing misunderstandings and increasing chances of successful communication. Similarly for schema, according to Beamer (1995), "Business communication is effective when schemata are closer." Conversely, mismatches may result in misunderstandings and communication as well as negotiation failure (Beamer, 1995; McMillen, 1991) and matches of mental models may improve outcomes (Van Boven & Thompson, 2003). These sources fail to consider how schemata are applied specific business contexts, though Van Boven and Thompson (2003) consider two very broad situations – distributive and integrative negotiations. If there are opportunities for matches and mismatches, considering situations may shed light on the process.

Schemata are developed from a person's construct of social reality, including the schemata for negotiation (Carnevale & Pruitt, 1992). The schemata of business people from differing experiential backgrounds, for example their working lives in different cultures, companies, locations or industries, may therefore be different. Conversely, those with similar experiences, for example MBA studies, might have similar schema despite being located in different national

cultures. Salacuse (1998) found variances in negotiation style by culture and occupation. His analysis employs ten dimensions, and several are reflected in the schemata employed in this research.

### ***Negotiation***

Negotiation is one kind of business process that may include a procedure or strategy schema. For the purposes of this paper, we take a general definition of business negotiation as a process of interactions in which parties define and develop relationships, solve problems and seek to make agreements or avoid detrimental ones, usually in formal situations where parties are aware of an intended deal (Benyoucef, 2010; Lewicki & Hiam, 2010; Sarkar, 2010).

As mentioned above, culture has impact on negotiation through schemata. Yet the studies referred to discuss national level culture rather than more granular levels of culture such as age, experience, and industry as attempted in this study in addition to the cultural contexts of Japan and Finland. Further, the relationships between negotiation schemata and the individual's position (Katz & Kahn, 1978) in a negotiation or managerial rank in the company remain uninvestigated. In this research report, position means one of four main jobs in a negotiation: the final decision maker, the team leader or chief negotiator, team members, and a last group of other supporters. The final decision maker may or may not be at the negotiation table, they however have final authority over approval. Thus the final decision maker could be an owner, top executive, board, or other body (Brett, Friedman, & Behfar, 2009). The lead negotiator, if not the same person as the decision maker, handles the strategy, sets the atmosphere, and directs research by allocating team members and resources (Ashcroft, 2004). Team members are generally speaking under the control of the leader and may be directed to speak as specialists or to take on other tasks (Brett et al., 2009). Other supporters may be part of the team but not directly participating in talks or they may be only briefly part of the team. Each of these four positions may take on multiple, even the same, roles (Katz & Kahn, 1978).

Managerial rank in this study report means the relative position in the organization from the top of the pyramid downward. At the top is the owning individual or group or their top agent(s) who are responsible mainly for strategic decisions. The next level is occupied by middle managers responsible for tactical decision making and resource allocation. The third level consists of first line managers who operationalize tasks and report on them. These levels are widely described in the literature (Boone & Kurtz, 2012; Cyert & March, 1992; Montana & Charnov, 2008; Robbins, DeCenzo, & Coulter, 2014). A fourth group, non-management, is included in the survey in this research. Non-management negotiators are important in business negotiations in the IT industry because these individuals may have considerable technical expertise.

### ***Negotiation in IT industry***

Although the previous studies in the field of IT have not directly focused on negotiation, several studies have highlighted its importance. In their study on software offshore outsourcing, Nahar and Kuivanen (2009) argued that negotiation forms one of the nine phases of the offshore outsourcing process. They concluded that offshore outsourcing contract negotiations between Finnish and Vietnamese partners are largely impacted by a weak legal system, corruption, and lack of transparency, in addition to common contractual issues. Currie (2000) studied the supply-

side of IT outsourcing. She concluded that the rapid pace of technical change makes negotiations of outsourcing contracts difficult and in some cases there might be a need to hire external consultants to provide assistance during the negotiations process. Corbett (1994) investigated the skills needed to successfully manage IT outsourcing processes. He found that negotiation is one of the most important skills, as a manager needs an ability to work toward mutually beneficial outcomes with partners that are not under the manager's direct control. In a similar vein, Elena and Silviu (2010) found that good negotiation skills were the key capability required when developing partnerships between outsourcing partners.

Studies by Davis et al. (2006) and Abraham et al. (2006) argue that negotiation skills should receive more attention when developing personal skills and the education of new IT specialist. In their study, Davis et al. (2006) argue that IT-related contract negotiations are important part of the CIO's responsibilities. Thus, for IT workers' personal development, different negotiation techniques are important "soft skills". These skills help in networking with partners and building trust between contracting parties. In their research, Abraham et al. (2006) investigated different capabilities that senior IT executives are looking for when hiring new employees and how these capabilities could be developed in information systems (IS) curriculums. The findings indicate that IS students would greatly benefit from negotiation skills especially in the context of project management.

Altogether, IT literature emphasizes the importance of negotiation skills among IT managers. These skills are counted as important "soft skills" for operation and management of various IT related tasks. However, negotiation skills and various negotiation styles per se have received only very limited attention in the IT literature. Thus, the aim of this paper is to study the negotiation schemata of IT professionals. This helps better understand how different factors impact negotiation strategies in the IT industry. Furthermore, we will compare negotiation schemata between Japanese and Finnish IT negotiators to develop wider understanding about possible differences in negotiation styles in international context.

## **METHODOLOGY**

This study applies standardized questionnaire survey method. The method is suitable especially in those situations where the aim is to gather data about attitudes, beliefs, and behavior (Bhattacharjee, 2012). For this study, the goal was to collect a small number of responses from IT professionals in each of the two target countries in order to test the conceptual approach of identifying schemata and seek hints about differences. Targeting this population, a survey was firstly developed based on the literature review and the authors' personal experiences in the field. Thereafter the preliminary version of the survey was completed and commented by two Finnish IT managers. Their comments were used to further develop the final survey questionnaire. In the final survey questionnaire, respondents reported their actions and observations in negotiations. This self reporting approach is shown to be valid in the work of Vetschera and Kainz (2013) who found that self-reported strategies match observed behavior in situations of preferences regarding payoff distribution. The current survey included schemata involved, or possibly involved, in business negotiation as identified and gathered from a variety of sources (see Table 1).

**Table 1: Negotiation schemata in this study.**

Schema and source	Description
1. Win/lose (Salacuse, 1998)	Distributive thinking in which each gain has a related loss and vice versa.
2. Employ a multistep process to get satisfying results (Lax & Sebenius, 2006; Movius, Matsuura, Yan, & Kim, 2006)	Specific steps and phases are followed which provide a structure to the negotiation.
3. Explore/Solve Win/Win Cooperate (Lax & Sebenius, 2006; Salacuse, 1998)	Integrative thinking in which utility is maximized for all parties possibly with gains beyond those initially in discussion.
4. Pitch to absent boss (informal interviews by authors)	Speaking through the counterparty to the needs and desires of their superior. Characterized by the statement, "I always propose in a way that will convince their boss."
5. Determine if there is suitable end to end business logic in the situation (Baber, 2015)	A reflective approach that seeks to understand the entirety of a proposal through its greatest logical extent with consideration of suppliers, distant stakeholders, product lifecycle, relationship lifecycle and more.
6. Bargaining/Logrolling i.e. trading incremental concessions (Bazerman & Malhotra, 2007)	Exchange of concessions especially by linking and delinking issues.
7. Get the deal and move on (authors; Salacuse, 1998)	Prioritizes time and cost efficiency as part of the transaction with the goal of completing and progressing, whether a deal or no deal is the outcome.
8. Secure an ally, develop the relationship (Baber, 2015; Salacuse, 1998)	A negotiation is a process for developing an ally, as opposed completing a particular agreement or task. The negotiator takes a strategic perspective towards the relationship and the deal content.
9. Negotiate only if the other party has empathic fit with you (Baber, 2015; DeMente, 2004)	Establish at the outset if there is chemistry (simpatico feeling) among the parties sufficient to motivate trust and cooperation. This includes the Japanese feeling of an emotional connection <i>en</i> (縁) or <i>wetto</i> (ウエット).
10. Fairness: An expected sequence of events for determining and adjusting to perceived fairness among the negotiation parties (Carnevale & Pruitt, 1992)	The negotiator expects a process that seems fair. Note that any given process may or may not be seen as fair by other parties.
11. Play to win, win for the sake of winning (Lafley & Martin, 2013)	The sole goal is to gain victory over the other sides in some respect even if loss of possible maximum gains is a result. The victory definition may include moral or egotistical issues as well as substantive issues within the negotiation.

While managers are often considered an appropriate focus group in business negotiations, this study includes also non-managers as the focus is on position in the negotiation. Position in a negotiation does not always equate to rank in the company because non-managers may have remarkable impact on the final decisions due to their relative importance or their technical specialization.

Processing the survey, the main outreach was via LinkedIn searches. Each candidate's profile was checked to confirm long-term work in the IT industry. Approximately one hundred individuals (61 Finnish and 38 Japanese) were contacted in this way. Five additional Finnish individuals were contacted by email. Ultimately ten responses from Japanese IT industry workers were received, all male (see Table 2). One of these, number 16, was removed from the data as all possible schemata were selected for all situations, suggesting an erroneous input. While an actor may access more than one schema at the time, some are mutually exclusive such as securing the deal and moving on (number 7) versus negotiating only if there is an empathic fit (number 9). From Finland, eleven individuals from the IT industry completed surveys, all are male (see Table 3). One was removed from the data because of long term work experience within Japan. In the data analysis, bivariate analysis method was applied to investigate how two variables correlate to each other (Bhattacharjee, 2012). When analyzing the data, correlations were investigated for several pairs of variables using the MS Excel statistics package.

**Table 2: Japan respondents.**

ID	Age	Level	Frequency of negotiating	Training	Position	Global employee count
1	30-35	Head of Operation	About monthly	No	Negotiation leader	10
5	36-40	Senior Management	Very often	No	Final decision maker	500
6	51-55	1st level of management	4-8 per year	Yes	Negotiation leader	170000
7	56-60	Head of Operation	Very often	No	Final decision maker	NA
8	30-35	1st level of management	1-3 per year	No	Team member	300000
10	51-55	1st level of management	4-8 per year	Yes	Negotiation leader	170000
14	56-60	Non-Management	4-8 per year	Yes	Team member	300
20	41-45	1st level of management	1-3 per year	No	Negotiation leader	80
23	46-50	1st level of management	About monthly	No	Negotiation leader	10

**Table 3: Finnish respondents.**

ID	Age	Level	Frequency of negotiating	Training	Position	Global employee count
2	46-50	Head of Operation	About monthly	Yes	Final decision maker	4
9	30-35	Non-Management	1-3 per year	No	Other supporter	5000
11	26-30	Non-Management	1-3 per year	No	Other supporter	270000
12	41-45	Non-Management	1-3 per year	Yes	Team member	500
13	46-50	Non-Management	1-3 per year	No	Other supporter	15000
15	36-40	Senior Management	Very often	Yes	Final decision maker	6
18	21-25	Non-Management	4-8 per year	No	Team member	10
21	41-45	Head of Operation	Very often	Yes	Final decision maker	50
22	31-35	Head of Operation	Very often	No	Final decision maker	150
24	36-40	Non-management	Very often	Yes	Team member	300000

## FINDINGS

For the first research question, which schemata are in use among the current generation of Japanese and Finnish negotiators in the IT industry, the survey confirmed that schemata 2-10 in Table 1 above are in use. Table 4 below shows how many individuals among the Japanese and Finnish respondents are employing which schemata.

**Table 4: Number of negotiators choosing schemata.**

Schema	Number of Finnish negotiators	Number of Japanese negotiators
1. Win/lose	0	0
2. Employ a multistep process to get satisfying results	8	6
3. Explore/Solve Win/Win	10	7

Cooperate		
4. Pitch to absent boss	7	7
5. Determine if there is suitable end to end business logic in the situation	8	7
6. Bargaining/Logrolling i.e. trade incremental concessions	5	1
7. Get the deal and move on	4	0
8. Secure an ally, develop the relationship	4	6
9. Negotiate only if the other party has empathic fit with you	4	3
10. Fairness: An expected sequence of events for determining and adjusting to perceived fairness among the negotiation parties	5	6
11. Play to win, win for the sake of winning	0	0

Two schemata were not selected by any respondent at all: Win/lose and Play to Win. These schemata are competitive and distributive, thinking which may be less appealing to the open source collaborative culture of the IT world, especially software, where team based development work is the standard. Alternatively, the prevalence of less-competitive schemata may indicate a relatively sophisticated view of business negotiation among IT negotiators. These two schemata are discussed further in the following section.

Regarding the second question, we can argue that negotiators mostly change their schema based on situation. The survey presented three situations, a new business relationship, an existing but not close business relationship, and a close business ally. Two of the Japanese and three of the Finnish respondents out of the seventeen total respondents indicated that they do not change schema based on the three situations provided. For these five, one way of thinking is enough. Four of those five brought only one schema into play. The remaining fourteen individuals, 74% of the survey population, did evince selection of schema based on situation.

For the third research question, we examined correlations among the data using dummy values as presented in Table 5 below. Variables in Table 5 correspond to the columns in Tables 2 and 3 above as follows. The AGE variable refers to the age range of the respondent. The LEVW variable refers to the management level of the individual. The FREQ variable refers to the frequency that the respondent participated in negotiation. TRN refers to respondent's experience of negotiation training. POSIT refers to the respondent's position in negotiation. COUNT refers to the number of employees in the organization globally and thus indirectly to the size of that organization.

**Table 5: Respondent data with dummy values.**

ID	AGE	LEVW	FREQ	TRN	POSIT	COUNT
1	3	4	3	1	3	3
2	6	4	3	2	4	8
5	4	3	4	1	4	6
6	7	1	2	2	3	6
7	8	4	4	1	4	3
8	3	1	1	1	2	4
9	2	0	1	1	1	4
10	7	1	2	2	3	6
11	2	0	1	1	1	2
12	5	0	1	2	2	3
13	6	0	1	1	1	5
14	6	0	2	2	2	4
15	4	3	4	2	4	8
18	1	0	2	1	2	7
20	5	1	1	1	2	5
21	5	4	4	2	4	6
22	3	4	4	1	4	7
23	6	1	3	1	3	4
24	4	0	4	2	2	5

We found that age did not correlate with increased number of schemata as shown in Table 6 below. It would seem that years of work and life experience do not result in the individual accruing additional views of negotiation. On the other hand, level in the organization, frequency of negotiation, and position in negotiation, all correlated with the number of schemata available to that individual, as seen in Table 6 below.

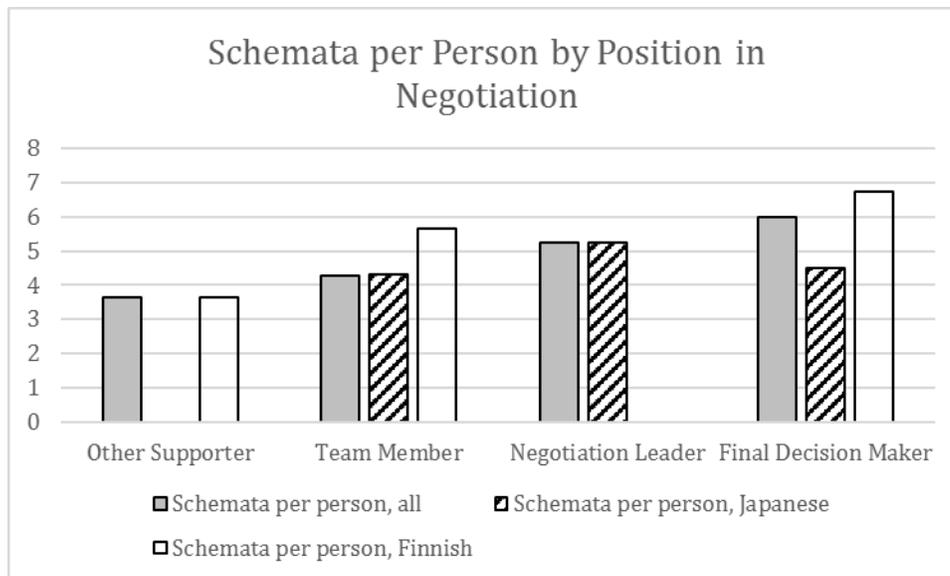
**Table 6: Correlation of age to other variables.**

Correlation of Age to Number of Schemata	0.02349	No correlation
Correlation of Workplace Level to Number of Schemata	0.342251	Moderate correlation
Correlation of Frequency of	0.415894	Strong correlation

Negotiation to Number of Schemata		
Correlation of Negotiation Position to Number of Schemata	0.525538	Strong correlation

As it can be observed from Figure 1 below, there is a tendency for the number of available schemata to increase with the importance of the person's position in the negotiation, from Other Supporter (low) up to Final Decision Maker (highest). Additionally, in this small sample, the Japanese business negotiators appear to have fewer schemata available to them than their Finnish counterparts.

**Figure 1. Schemata availability by negotiator position.**



Analysis also reveals that negotiators with lower positions in negotiation (Team Member and Other Supporter) had on average fewer schemata, about three, than those with higher positions (Lead Negotiator, Final Decision Maker). The higher players had almost six schemata available (see Figure 1). When it comes to negotiation training, Final Decision Makers and Negotiation Leaders with negotiation training had slightly more schemata at hand. However Team Members with training had slightly fewer.

**DISCUSSION**

The most interesting findings from the previous section and other salient items are discussed below. Because this study based on fairly small sample, the main intent of this discussion is to identify salient points for future study.

Firstly, Logrolling, schema number six in this study, was noticeably less in use among Japanese than among the Finnish negotiators studied. Logrolling, the process of offering and

counteroffering incremental improvements, concessions, and recombined packages, is common in training courses and popular negotiation literature in North America and Europe. In those regions, it may be a widely held schema that comes easily to the layman's mind, a more complex version of *quid pro quo*, "I'll give you this if you give me that."

Secondly, Get the Deal and Move on, presented as schema number seven, was chosen by seven of the Finns and only one of the Japanese respondents. This way of thinking seeks time efficiency and is competitive towards co-workers and competitor companies that may not be directly in the negotiation, but not necessarily towards the negotiation counterparties. This schema may match with the notion that individualism is valued higher in Finland than Japan (Hofstede et al., 2005). This schema is short term in thinking; relationships and repeat business are not goals of this schema, merely saving time or gathering a quota of deals are the goals. This is an opposite, though not mutually exclusive, schema of developing an ally (number eight), which appears to be more popular among Japanese than Finnish negotiators.

Thirdly, Develop an Ally for the Long Term, number eight in this study, was more popular among Japanese than Finns but relatively common in both groups. Therefore it may be a source of common ground in Japanese-Finnish encounters. If so, parties may be able to promote it explicitly and improve the communication from the outset. This schema refers to a process for developing an ally, as opposed to completing a particular agreement or task. The negotiator takes a strategic perspective towards the relationship and the deal content. The typical collaborative nature of IT development (Whitehead, 2007) may explain the relative commonality of this schema.

Fourthly, Establish Empathic Fit is presented as the ninth schema. Only three Finnish and a mere pair of Japanese negotiators chose this schema. The literature (DeMente, 1994) and authors' experience suggests that this schema is common among Japanese business negotiators. However the data collected in this study suggest that it is neither remarkably common among the Japanese negotiators, nor restricted to Japanese business people. Against the expectations of the authors, few Japanese business people chose this and they were outnumbered, albeit only three to two, by Finns. It may be, as suggested by Choi et al. (2012), that Japanese businesses have well established relationships and do not need to undertake this step so often.

Fifthly, in this study population, Finns employed more schemata than Japanese, however the small sample size makes it unclear if this is true in the larger population of IT industry negotiators. Nonetheless, some tendencies appear for the following three schemata: i) Get the deal and move on: Four Finns included this schema, but it was not selected by any Japanese respondents. ii) Develop an ally: Four Finns identified use of this schema whereas six Japanese respondents did. This schema emphasizes a long-term alliance where the relationship is of vital importance. iii) Make offers and accept counteroffers to gain and give incrementally: Only one Japanese whereas five Finnish participants selected this schema. Other schemata were shared close to equally by Japanese and Finnish IT business negotiators, although the survey population is too small to draw clear conclusions about preference.

Finally, two schemata were not selected by any respondent at all. These were the first on the list, Win/lose, and the final choice, Play to Win. Both are highly competitive and allow little room for relationship development; indeed they are likely to sacrifice relationships in favor of tangible

gains. The rejection of these two schemata suggests that Finnish and Japanese IT negotiators may not be particularly aggressive in seeking immediate distributive advantage but may be generally tuned to collaborative arrangements and mutual gains. This result could be because the industry presents a broadly collaborative culture as demonstrated in some locations, for example USA (Dionisio, Dickson, August, Dorin, & Toal, 2007; Inada, 2010; Saxenian, 1994) and one of Canada's technology hubs, Waterloo, Ontario (Spigel, 2013) or for other reasons not investigated here such as lack of training, lack of pressure due to limited resources, and so on.

These data suggest that the number of schemata a person has available to draw on does not increase simply through the general experience of living in the normal world of daily interactions and informal negotiation. Rather, it may be by dint of frequent exposure to business negotiations that negotiators increase their library of available schemata. More strikingly, with the strongest correlation, it is the higher position in the negotiation that is associated with the greatest depth of schemata. The causality nonetheless remains unclear. It may be that individuals with more schemata rise to the top, or it may be that their rise to the top is part of their process of harvesting new schemata. Future research may be able to determine the causality through modeling, surveys, and observation.

## CONCLUSIONS

The aim of this study was to contribute knowledge of business negotiation schemata of IT negotiators and thence to identify avenues of further investigation on this subject. Although negotiation skills of IT managers have been highlighted in several previous studies (Abraham et al., 2006; Davis et al., 2006; Kuivanen & Nahar, 2009; Vykoukal et al., 2009), the negotiation styles per se have received very limited attention in the IT literature. The findings of this study reveal that differences exist among the study population with respect to negotiation schemata, preferences for sharing of info, experience, and availability of schemata to individuals. IT negotiators apparently have some schemata at hand, but do not necessarily enjoy a broad range. There is a possibility that they might choose schemata that conflict with the schemata of their counterparts in cross-cultural situations. Indeed, they may not identify their counterparty's schema due to their own narrow range of schemata. Practical implications for IT negotiators include gaining more schemata. By extension, they should seek to hone their ability to correctly select and switch based on the context of an interaction. An important further implication for Japanese and Finnish IT practitioners is to know the schemata in use on all sides in order to avoid mismatches and thus inadvertent conflicts.

Among its limitations, the study suffers from small sample size including only male respondents. This has to be taken into the consideration when evaluating the findings of this study. That is, the present work could be improved with a larger population in order to validate, extend, and refine the findings. In addition, present study did not consider to the type of a product or software under negotiation. That is, highly customized hardware or software might require a totally different kind of negotiation process compared to the standardized hardware or software (cf. Nambisan, 2001; Ojala & Tyrväinen, 2006). We did not consider differences between deal and sales negotiations or experience gained in negotiation. Follow up studies are required to take these into consideration. For instance, qualitative case interviews with individual negotiators would shed greater light on preferences and choices about schemata in the context of the industry and

specific negotiation situations. A future survey and complementary cycle of interviews might also seek to determine the metacognitive mechanism of selecting and switching schemata.

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