The Influences of National Culture on New Product Development Collaboration

A Case Study of ABB

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ABSTRACT

To ensure success in the rapid pace of globalization, it is crucial for companies to understand the management practice within and outside national boundaries. This study investigates the influences of national culture on new product development (NPD) collaboration between China and Sweden.

By applying the qualitative approach with a single case, the study shows that national culture influences on NPD collaboration by means of organizational culture and work values regarding six national culture dimensions between China and Sweden. Concerning organizational culture, power distance and masculinity versus femininity dimensions of national culture have impacts on NPD collaboration. In terms of work values, the influences of power distance and uncertainty avoidance are ranked at first place, whereas individualism and collectivism, masculinity versus femininity, harmony and long-term versus short-term orientation are relative weak comparing with first two dimensions.

However, the results also show that some organizational characteristics including uncertainty avoidance, long-term versus short-term orientation and harmony have barely effects on NPD collaboration. This implies that there could be context-specific factors that affect performances of NDP collaboration regardless of in which country the NPD project takes place.

Keywords: National culture, NPD collaboration, case study
1 Introduction

In the introduction, the background of this research fields will be introduced, followed by a discussion regarding the research problem, which in turn is followed by the purpose of this research along with research question.

In the light of rapid pace of globalization, companies increasingly develop new products for international markets because the continuous development and market introduction of new products is an important determinant of sustained company performance (Capon et al., 1990; Chaney & Devinney 1992; Urban & Hauser, 1993).

Companies therefore have to entail the abilities to coordinate different resources because product success often generates from using the right mix of internal and external resources (Chesbrough, 2003). In this way, the means of utilizing human resource which creates competitive advantages of new products is one of the key for companies to achieve high business performance (Deck & Storm, 2002). Subsequently, many of multinational enterprises (MNEs) set up heterogeneous international new product development (NPD) groups in order to gain the competitive advantages. The challenge for these MNEs is building the way of leveraging and coordinating these people with creative capabilities and resources which are always diffused across geographical and cultural boundaries (Brentani & Kleinschmidt, 2004).

Concerning culture difference, one of the prominent exemplar is the failure of Volvo-Renault alliance. In 1990, Volvo-Renault alliance was one of the largest and most prominent alliances in Europe which seemed to model the future of European business integration and symbolize the best intentions of pan-European cooperation (Bruner, 1999). However, the temporary collaboration collapsed within three years which destroyed 1.1 billion dollars in Volvo shareholder wealth (ibid). Based on observation from this failed merger it advised that differences in culture (language, values and national traditions) matter on both corporate and a country level (Bruner and Spekman, 1998). It is because alliances consist of people working together, finding a common ground on which to build the value that first brought the firms together (ibid).

From the lessons of Volvo-Renault, companies do not only need understand the diverse national culture within their multi-location operations, but also, if they are going to enhance efficiency of NPD collaboration, they must learn to integrate these diverse national cultures when managing NPD project together (Yip, 1992) It is because inattention to the importance of cultural differences will greatly accelerate problems (Bruner & Spekman, 1998).

Although there are extensive studies on NPD, successful NPD management practices could be different from each country regarding national culture differences (Mishra,
1996; Nakata and Sivakumar, 1996; Schoening et al., 1998). Hence, it is still uncertain whether the results of the studies could be applied to all companies (Lee, Lee & Souder, 1999). Also, the nature of NPD has become largely global in scope. It means that previous and ongoing research has not taken account of this important reality adequately (Devinney, 1995; Lovelock, 1999). This is because that the past NPD studies on management practice do not incorporate the international collaboration aspect of NPD, which is limited to one nation and we are still lacking in cross-cultural knowledge (Brentani & Kleinschmidt, 2004).

The purpose of this study focuses on cross-cultural issues in the context of NPD collaboration, with the objective of understanding and identifying how national culture impacts on NPD collaboration. We examine the possible link between national culture and NPD collaboration by means of organizational culture and work values. It is because organizational culture is some of the most frequently cited factors that determine the outcomes of NPD (Montoya-Weiss & Calantone, 1994), and are closely related to the national culture. Also, National culture refers the most common explanation for nation-level differences in individual work behaviors, attitudes, and values (Bond & Smith, 1996; Aycan, 2000). This research also aims to make both managerially and theoretically relevant contributions. For managers who are organizing cross-cultural teams, this study will help point the way to enhancing the effectiveness in NPD collaboration. A useful conceptual framework will be presented for understanding the influences of national culture on NPD collaboration by means of organizational culture and work values, but also a guideline to follow in managing diversity national cultures, better ensuring that cultural values enhance rather than impede the innovation process.

Specifically, we selected China and Sweden as two representatives of East-West contrast because of the importance of the Pacific Rim1 and industrialized Western nations to international business, and because of the substantial differences between these cultures (Ronen & Shenkar, 1985). Also, China has been one of the fastest paces of growth among developing countries over the past decades. Nowadays, China has emerged as one of the most important business partners of Swedish and the amount of collaboration projects between Chinese and Swedish are raising year by year. The more specific research questions of this study are as follows:

“How does national culture influence on NPD collaboration by means of organizational culture and work values between China and Sweden?”

2 Theoretical Frame of Reference

A theoretical framework will be presented in this chapter. The earlier theory in the field of this study will be applied. Finally, a conceptual model combining the theories will be illustrated.

1 Pacific Rim: places around the edge of the Pacific Ocean
2.1 National Culture

National culture is defined as the beliefs, values and assumptions perceived by people in their early childhood that later distinguish one group of people from another (Beck & Moore, 1985; Hofstede, 1991). It is rooted soundly in daily life and is relatively impervious to change (Newman & Nollen, 1996). On the managerial aspect, national culture is believed to have influences on the uncertainty perception (Hofstede, 1980); control of the environment (Kluckholn & Strodtbeck, 1961; Hall, 1960; Nowotony, 1964); as well as the interpretation and response to strategy issues (Schneider & Meyer, 1991). Hence, the understanding of local culture conditions is necessary to achieve high performance outcomes (Newman & Nollen, 1996). Moreover, the fully understanding and healthy communication between different national cultures are crucial for the business operation of multinational corporations.

In this concerning, substantial researchers have been done in national culture. In the past decades, equating nation-state with culture was a dominant approach of cross-culture research (i.e. Hofstede, 1991; Schwartz, 1999). This trend has regularly changed with the demands on management. Recent researches put more emphasis on identifying professions and identities (i.e. Holden, 2002; Ybema & Byun, 2009). This is a fresh phenomenon in the cross-culture management area. In the history of cross-culture management study, the most common used approaches are parochial (studies conducted by Americans); ethnocentric (applies American’s way to foreign countries); polycentric (studies the organizations in foreign countries); comparative management studies (identifies the similar and different organizational aspects in culture worldwide); geocentric studies (focuses on multi-national corporations); and culturally synergistic studies (creates universality) (Adler, 1983). Parochial and ethnocentric approaches are limited in single culture that good for similar culture study, but not for differentiating culture situations (such as China and Sweden). Polycentric and comparative are focusing on organizations, but the latter one is geographical cultural wider and used to identify the differences among nations (ibid). However, both of those approaches are weak at researching cross-culture issues. Hence, for the sake of cross-culture study, geocentric and culturally synergistic approaches would be appropriate. It is because they aim to study international management and cross-culture interaction (ibid). In terms of the frameworks conducted by scholars, the study conducted by Hofstede (2001) (five dimensions) and Schwartz (1999) (seven types of cultural values) seems to be the most popular recently used ones. This paper picks off Hofstede’s five dimensions to analyze the influence of national culture in NPD collaboration through geocentric and culturally synergistic way.

It is true that there exist criticisms towards his model, especially “uncertainty avoidance” and “long-term versus short-term orientation”. The most democratic criticisms towards Hofstede’s dimensions are westernized (Wilkesmann, et al., 2009), which is lack of the consideration of the eastern cultures since it’s carried out exclusively by western researches in a western way. Some of the data used in his
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study are outdated that makes the framework unable to keep pace with the changes in the real world (ibid). Besides, the valid data were collected from 40 out of 66 countries, within which only six countries members responded more than 1000 in both surveys (McSweeney, 2002). Furthermore, the difference between cultural practice and cultural values hasn’t been identified (Hanges & Marcus, 2004, p.138). That means people holding different cultural values do not mean to behavior differently in the real world. Cultural practice is not always the reflection of cultural values.

Nevertheless, no one can deny that Hofstede’s work has accomplished and preserved distinction within parts of the management disciplines. Some of those dimensions are brought up by other authors as well (e.g. Kim et al., 1994). Furthermore, there are considerate number of research are based on Hofstede’s five dimensions somehow, for instance, Schwartz’s seven types of cultural values are compared by considering three issues, two of them are from Hofstede’s model. There are evidences show that the replication of his empirical results has been hoisted to the national level (Shackleton and Ali, 1990; Chow, Shields and Chan, 1991), and his culture model has been perceived as significant and reasonable for analyzing differences among nations (Triandis, 1982). The most remarkable thing is that Hofstede have identified work-related value along with national cultures vary each dimensions (Newman & Nollen, 1996). He explained that “national culture is the collective programming of the mind that distinguishes the members of one group or category of people from another.” (Hofstede, 2001, p. 9), and also this collective programming is founded on the view that an individual’s work values are shaped by societal and cultural norms. Ergo, the applying of Hofstede’s model will help us to better understand how national culture influences NPD collaboration. We will use the five dimensions of Hofstede national culture as the base of our concept of national culture. However, concerning the shortcoming of fifth dimension (which was originally designed to examine the East-Asian culture as a supplement to Hofstede's first four dimensions of national culture), for responding to recently continuous change in Chinese society, we will divide it into two dimensions, described as long-term versus short-term orientation and harmony.

In one of the recent studies, Fang (2003) argued that, indeed, there is a philosophical flaw inherent in Hofstede’s fifth national culture dimension (i.e. long-term versus short-term orientation, also referred as Confucian dynamism). He further explained that the reason why the fifth dimension has not been well received is because the Confucian values underlying the concept look so Chinese that they are not registered in the western mind. Also, the compared with first four dimensions, the fifth does not result from the same techniques of factor analysis as applied to validate the outcomes. Therefore, Hofstede’s fifth dimension’s viability is questioned, and its relevance for cross-culture research has been found and will remain limited.

To this end, in this study, the concept of national culture is categorized in terms of six dimensions. Each dimension is stated as following:
(1) Power Distance is ‘the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally’ (Hofstede, 1991, p.28).

(2) Individualism versus Collectivism is ‘the degree to which individuals are integrated into groups’ (Hofstede, 1991, p.51).

(3) Uncertainty Avoidance is ‘the intolerance for uncertainty and ambiguity’ (Hofstede, 1991, p.113).

(4) Masculinity versus Femininity is ‘assertiveness and competitiveness versus modesty and caring’ (Hofstede, 1991, p.82).

(5) Long-Term versus Short Term Orientation (also called Confucian Dynamism) is to ‘deal with virtue regardless of truth’ (Hofstede, 1991, p.187).

(6) Harmony is the extent to which individual involves in confrontation (Chen & Ma, 2002)

2.1.1 National culture and organizational culture

Organizational culture is defined as the underlying, shared values that provide employees with behavioral norms in the firm (Chatman & Jehn, 1994; Deshpande & Webster, 1989; Narver & Slater, 1998). Previous research has shown that employees’ behaviors are directed by organizational culture, which as a result is linked to business outcomes (Baird et al., 2007; Holmes & Marsden, 1996; Schein, 2004). So that plentiful attentions from both academicians and practitioners have been drawn to organizational culture for its logical impact on business outcomes (Webster & White, 2009).

The business organizational culture is partially determined by the national culture in which it exists (Webster & White, 2009). Considerable research has shown that organizational culture and behaviors of employees largely depend on national culture (Adair et al, 2001; DeVoe & Lyengar, 2004; Rhody & Tang, 1995; Tsui et al, 2007, Yeh, 1995). Furthermore, an organization’s business strategies, tactics, and practices in the global marketplace are affected by the national culture as well (DeFrank et al, 1985; Tse et al, 1998). Hence, it assumes that organizational cultures are manageable somehow as long as national cultures give some facets for management. Subsequently, a unified organizational culture across national borders can be the core to keep multinationals together as a whole (Hofstede, 1991). One of the criticisms of Hofstede’s framework is that it did not distinguish the influence of organizational culture (Wilkdsmann et al., 2009). In that case, this paper investigates the influence of national culture through five dimensions by applying organizational culture. And try to make up the flaw of the model. The following part will undertake the six dimensions of national culture along with organizational culture in turn.

*Power distance*, at the work place, refers to the organizational hierarchy structure. Small power distance societies’ (organizations’) hierarchy manifests an equality of roles within the group. Inferiors are expected to be consulted together, and the ideal boss is resourceful democrat; whereas in large power distance societies (organizations)
hierarchy means existential inequality, inferiors are expected to be told what to do, and the ideal boss is benevolent autocrat (Hofstede, 1994). Going further step, Hofstede's (1991) study also implied that organizations with a centralized decision structure are more likely to exist in higher power distance countries. On the contrary, organizations with a distributed decision structure are more likely to exist in lower power distance countries. Such findings correspond to Brockner’s et al (2001) research. It showed that the “voice” manipulation of participants' perceptions is influenced by power distance of different cultures which in turn affect the ‘voice’ of an ongoing relationship between employees and employers. For example, in low power distance orientation organization, the relationship between procedural justice and trust in supervisor is higher just the same as the relationship between distributive justice and contract fulfillment (Lee, Pillutla & Law, 2000).

Masculinity versus femininity refers to the managerial styles. At the work place, feminine societies (organizations) are assertiveness ridiculed, underselling themselves and stressing on life quality and intuition. On the contrary, masculine societies (organizations) are assertiveness appreciated, overselling themselves and stressing on careers and decisiveness (Hofstede, 1994).

Individualism versus collectivism, at the work place, means the way employees conduct their works. Collectivist societies (organizations) are particularism which views other people as members of their group; relationship prevails over task and with a moral model of employer-employee relationship. Whereas individualist societies (organizations) are universalism which view other people as potential resources; task prevails over relationship and with calculative model of employer-employee relationship (Hofstede, 1994). Parallel research conducted by Morris and Peng (1994) regarding national culture also indicated that compared with an individualistic culture, the fundamental attribution error has higher possibility to happen than in a collectivistic culture.

Uncertainty avoidance, at the work place, is the degree of conservation in an organization. Weak uncertainty avoidance societies (organizations) appear dislike of rules and less formalization and standardization, while strong uncertainty avoidance societies (organizations) have an emotional need for rules and more formalization and standardization (Hofstede, 1994). Uncertainty avoidance could be the key issue of corporate behavior such as establishment of rules and methods and management of risks and ambiguity (Hofstede, 1991). Hence, the high uncertainty avoidance corporate culture may lead to the enactment of procedures of the time or situation deviate from one to the next (Brockner’s et al., 2001).

Long-term versus short-term orientation is also called Confucian Dynamism in Hofstede’s study (2001). Cultures associated with long-term orientation are thrift and perseverance; cultures associated with short-term orientation are respect for tradition, fulfilling social obligations (Hofstede, 1994). Narayanan (1985) and Stein (1989) pointed out that short-term earning can be boosted through hidden actions at the
expense of long-term earnings. Such finding corresponds to Rey and Salanie’s study (1990), they indicated that short-term contracts sequences can implement strictly less than long-term contracts under asymmetric information context.

Harmony is a concept of wholesomeness, which is an extension of harmony with nature (Kluckhohn & Strodtbeck, 1961). It plays the role of processing conflict management and resolution across the organization (Chen & Ma, 2002). Harmony in the NPD literature is applied to networks, since it includes both the notion of cooperation and conflict (Rampersad et al., 2009). For example, Chinese prefer to use a non-confrontational style in the organizational, while Western societies display the adoption of conflict resolution (Chen & Ma, 2002). Besides, literature on harmony is predominated by intra-organizational rather than inter-organizational (Kluckhohn & Strodtbeck, 1961).

2.1.2 National culture and work values

“Work-related values refer to the goals or rewards people pursued through their work. They are the expressions of more general human values in the context of the work setting” (Schwartz, 1999, p.43). In terms of work values, researchers have attempted to take transformations in important work-related values into account by studying culture difference. Subsequently, it comes to an argumentation that culture differences have been seen as a major role in differentiating work values and their priority (Hofstede, 1980; Pelled & Xin, 1997; Schwartz, 1999; Ralston et al., 1993, 2007).

Thus, this section is concerned with the influences of national culture on work values because national culture provides the most common explanation for nation-level differences in individual work behaviors, attitudes, and values (Bond & Smith, 1996; Aycan, 2000). Also, work-related values are ingrained in the national culture which guides individuals toward the acceptable and away from the unacceptable. To this end, six national cultural dimensions will be conduct as the base, along with Jaw et al.’s (2007) work-related variables.

Power distance refers to the work value of power and status which measures the extent to which employees perceives a job brings prestige/self-respect, authority, influence, control and respect from others (Pelled & Xin, 1997; Schwartz, 1999). According to Denison’s (1990) research, among firms in the U.S. employees with work value of low power and status are more likely to participate in decision-making which also contributes the high performance of the firms; while employees with work value of high power and status are likely to view participative management with fear, distance and disrespect because participation is not consistent with their national culture such as those in East Asia and Latin Europe (Newmen & Nollen, 1996). Moreover, Morris and Pavett (1922) found that managers who encourage participating in decision-making in these high distance countries are likely to be viewed as weak and incompetent comparing to the countries with low power distance.
**Individualism versus collectivism** is an important dimension of differentiating national culture at workplace. Lee et al. (2000) found among the firms that individualists are more attuned toward a promotion focus, whereas collectivists are more attuned toward a prevention focus. Such findings are consistent with Jaw et al. (2007) and Hofstede’s (1980) argumentations that individualism produces a preference for self-enhancement, openness to change, and stability and rewards, all conditions in the workplace that likely foster and indicate higher work centrality. In the contrary, Bochner and Hesketh (1994), for example, found collectivists emphasize having more informal contact with fellow workers, knew staff better, and are more likely to work on a team than alone compared with individualists. Furthermore, Self-interests is observed as another indicator to differentiate between individualism and collectivism. People with high individualism looks after his/her own interests, which is opposite to people with low collectivism who holds group value and seeks collective interests (Hofstede, 1980).

**Masculinity** dimension reflects in merit-based opportunities for high earning, recognition, advancement and rewards at workplace, whereas **Femininity** dimension emphasize the quality of interpersonal relations and working life issues (Newmen & Nollen, 1996). The similar evidences gained in Hofstede (1991, 1993) and Yamaguchi’s (1999) studies point out that masculinity tends to drive the motivation of employees at workplace that stress assertiveness, overall yourself, decisions and careers which have a lot relations with powers and status. Jaw et al. (2007), for example, examined the data collected from 185 after-work Chinese businessmen and concluded that masculinity has positive influence on the work values of power and status among the Chinese employees.

**Uncertainty avoidance** is the extent to which people confront uncertain, unknown or unstructured situation. It comes under the work value of reward and stability (Schwartz, 1999; Jaw et al., 2007) which refers to pay, job security and clear job descriptions in an organization setting (Hertzberg, 1959; Schwartz, 1999; Yamaguchi, 1999). Individuals with low uncertainty avoidance are more ambitious, more willing to change jobs, more likely to find jobs they like, and thus seem more likely to have higher work centrality (Parboteeah & Cullen, 2003). In the contrary, where high uncertainty avoidance values are emphasized people are more likely to be discouraged from pursuing these individuating goals in their work because by relying on clear procedures, well-known strategies and well-understood rules can help employees reduce uncertainty and deal with their discomfort with unknown situation (Newmen & Nollen, 1996; Schwartz, 1999).

**Long-term versus short-term orientation**, called Confucian dynamism, encourages people to pursue long-term benefits (perseverance) while suffer short-term loss (thrift) (King & Bond, 1985). Therefore, it highlights value of diligence and hard working to achieve the long-terms goal, which relates to the work value of self-achievement, rewards and stability, contribution to community (Jaw et al., 2007). For instance, long-term orientation has greatly shaped people’s work value performances such as hard work, respect for time, and drive to accumulate wealth (Coates, 1987); and needs
for achievement, benevolence and power (Hartman & Samra, 2008; Schwarts, 1992). To Chinese notion of long-term orientation, it has deeper implications (Fang, 2003). Long-term orientation as a core of confucian dynamism stands not only for persistence but also tolerance (ibid).

Harmony indicates that human interactions is a process in which the interactants continuously adapt and relocate themselves toward inter-dependence and cooperation by a sincere display of wholehearted concern for each other (Chen, 1993). Thus, the influences of harmony can be further integrated into the examination of the relationship between specific context and conflict behaviors (Chen & Ma, 2002). Therefore, the cardinal work-related value of harmony can be perceived as a milestone that guides individuals to pursue a conflict-free communication relationship (Chen & Xiao, 1993). According to the study of Peng et al. (2000) and Liu and Chen (2000) study, Chinese employees show a greater tendency to adopt an avoiding, obliging and integrating style, and less likely to adopt dominating styles in the process of conflict resolution. In turn, the ability to achieve a harmonious state becomes the criterion for evaluating the communication competence of individuals.

2.2 National culture and NPD collaboration

Cultural heterogeneity refers to the diversity of national cultures within a group. From the managerial view, it means pointing out a way to enhance the effectiveness and new product development outcomes through organizing these cultural heterogeneous individuals (Nakata & Sivakumar, 2003). It is generally believed that work units that are managed consistent with national cultural expectations will be better performing than work units who are not compatible with prevailing cultural emphases. The reason to explain might be that successful NPD is different from each country due to its various national culture differences (Nakata & Sivakumar, 1996; Schoening et al., 1998).

In the context of NPD, collaboration refers synergy - that is, the NPD performances exceed the sum of the capabilities of the individual participants in the NPD process (Jassawalla & Sashittal, 1998). Specifically, it is the scenarios in which participants explore new opportunities, enhance creativity and openness to change, innovative ways of thinking, organizing, and taking action so as to achieve shared visions and goals (ibid). Nevertheless, the additional risks or costs may stem from collaboration for NPD because of its complex, higher intensity cross-cultural linkage. Evidences indicate that the successes of multicultural collaboration in NPD can be hindered by mistrust, stereotyping, language and communications difficulties and stress. The lack of trust is one of the most powerful determinants between successful collaborative product development projects and failed ones (Littler, Leverick & Bruce, 1995). Also, inappropriate stereotyping can result in not observing and accurately judging the skills and efforts of others (Adler, 1991). Besides, language communication and stress in multicultural team settings may manifest itself in bickering, stubbornness, and reprimanding. Thus, the potential for both positive and negative results in
multicultural new product collaboration highlight the need for careful design, selection, and managerial skill (Anderson, 1983; Gross, Turner & Cederholm, 1987). Concerning this phenomenon, Sivakumar and Nakata’s (1996; 2003) study address the effects of national culture on forming global new product teams. The research contributes to build a conceptual model for culture-based new product team compositions in an international NPD context. That is, five national culture dimensions of Hofstede (1991) can facilitate or hamper the two phases of new product development (i.e. initiation and implementation) in terms of cooperation, coordination, controlling and planning of a multicultural NPD team.

2.3 Culture differences between China and Sweden

People with different culture background and holding different fundamental values about people are quite different in making strategic decisions and preferring different types of organizational structure (Shane, 1994). Therefore, successful NPD collaboration has high possibility to be different from different cultures. This section will discuss the different cultures between China and Sweden from two enumerative aspects which have hints on the management approach. They are cultural behavior and different work-related value (Li & Madsen, 2010).

This section applies the business relationship perspective as an example to illustrate the different culture behavior between China and Sweden. The most specific network in China called Guanxi relationship. Guanxi is being seen as an alternative to formal institutionalized interactions. It characterizes the bond among people in Chinese society (Zhang, Perks & Kahn, 2009). Zhang, Perks and Kahn (2009) suggested that in underdeveloped process (e.g., NPD) Guanxi plays the role of the unifying force. And, it is highly important for making up the deficiencies of formal external institutionalized structures as well as the way people work together (ibid). However, in Sweden the business relationship is in another term called business networks. It can be characterized into three components: actors, activities and resources (Häkansson & Johanson, 1992). It is obvious that both Sweden and China have their own construction of business. The difference is that in China the social relationship is the prerequisite of doing business (Björkman & Kock, 1995). Furthermore, in most of the time, Chinese actors will establish a long-term social relation for the purpose to subsequently benefit from them (ibid). And in Sweden, formal business network is emphasized which guides the way to select the partners on the basis of previous collaboration experiences (Häkansson & Johanson, 1992).

Work-related values are a constellation of beliefs, behaviors and attitudes in work setting (Miller et al., 2002). In China, work value has been defined specifically as Confucian work value (CWE). Lim (2003) suggested that CWE stands for the values of thrift and hard work, harmony and cooperation, respect for educational achievements, and reverence for authority. Accordingly, the formulation of CWE is the result of three ideologies (capitalism, communism, and Confucianism) that makes the value system in China different (Li & Madsen, 2010). Swedish are with the
characteristics of self-reliance and individual competitions go hand in hand with a humane attitude and a strong sense of equality (Triandis, 1994). And Swedish view the instrumental values broadminded, capable and courageous as significant (Svallfors, Halvorsen & Andersen, 2001). According to the same research conducted by Svallfors et al (2001), compared with Norway and Denmark, both employment and organizational commitment among the population is weakest in Sweden, whereas a strong institutionalized commitment to work is of longest standing in Sweden.

2.4 Conceptual Model

After reviewing the literature, a conceptual model (Figure 1) is proposed which in turn will be used to analyze the empirical findings. Based on the theories above, six national culture dimensions are formulated. They are power distance, individualism versus collectivism, masculinity versus femininity, uncertainty avoidance, long-term versus short-term orientation and harmony. Although the fifth dimension was emerged as oriental contribution to Hofstede's dimension of national culture, it is still unable to measure the essence of Chinese culture comprehensively (Fang, 2003). Therefore, the sixth dimension of national culture is added in order to further investigate the Chinese culture on the basis of a more Eastern viewpoint.

Hofstede’s study has identified national culture on the basis of work-related value (Newman & Nollen, 1996). Also, researchers addressed that national culture provides the most common explanation for nation-level differences in individual work behaviors, attitudes and values (Bond & Smith, 1996; Aycan, 2000). We therefore argue that national culture is closely related to work values which in turn influences on NPD collaboration. The reason is that people are the medium by which NPD collaboration is conducted and national culture impacts on. Nevertheless, Hofstede only examined in one multinational company (IBM) neglecting the influences of organizational culture separately. In order to compensate this shortcoming of Hofstede’s model, we also map organizational culture as a parallel means of work values which connects national culture and NPD collaboration. It is because organizational culture determines the performance of NPD outcomes (Montoya-Weiss & Calantone, 1994), and is partially determined by national culture which it exists (Webster & White, 2009).

Although a great deal of research has pointed out that there are linkages between national culture and work values, and national culture and organizational culture separately, how national culture affects on NPD collaboration through these two means is still lack of comprehensive empirical research. That is to say, it is very important to connect the disjunction of national culture and NPD collaboration with the help of organizational culture and work values. Thus, reflecting on the literature, we therefore present the conceptual model of national culture and NPD collaboration bridged by means of organizational culture and work values on the basis of six national culture dimensions.
3 Methodology

In this chapter, the methodology will be presented. The research strategy of this study is qualitative, and the design is a case-study.

3.1 Research Approach

The empirical research was performed as a single case study at Robotic Department in ABB Västrås and Shanghai with six employees. An exploratory case study approach is chosen since the main objective of this research is to investigate and understand the problem being studied (Malhotra, 2001).

The way to collect data and field of research can influence choices of the research methods. In order to acquire a full understanding of problems regarding the influences of national cultures on NPD collaboration, the method used in this study is qualitative study (Bryman & Bell, 2007). Also, the aim of this study is to understand cross-cultural interaction and use that understanding to decide how and when to use pluralistic or universalistic forms of management and organization (Adlher, 1983). Hence, the use of qualitative method is especially well suited to answer the questions such as “how” rather than “how much” in quantitative approach (Bryman & Bell, 2007). It provides the perceptions, values and goals based on the words to get specific phenomenon in terms of the research areas (Bryman & Bell, 2007).

3.2 Case Study

According to the research questions and the purpose of this study, case study is chosen as research framing. As Eisenhardt (1989) addresses, the outcomes or theory developed from case study always have the strengths of novelty, testability, and empirical validity. It focuses on understanding the dynamic present within single setting. Furthermore, within case analysis, it is helpful to build new theory which can be applied to our research area.

To define the population and sample of this study, Richardson’s (1999) definition of population and sampling was applied. One population is the amount of elements that
possess some determined characteristics and the sample is any part of the population. Submitting to this view, the case we chosen should be matched following criteria:

- The company should be a multinational company which operates business both in Western (i.e. Swedish) and Eastern (i.e. China) country.
- The company has an international NPD collaboration project carried out between the people from those two nations.
- All people should work in the same NPD collaboration project, and they must be indigenous ones from the studied countries (i.e. in-born-culture).

A case study often involves data collection from multiple sources (Ghauri & Gronhaug, 2005). According to Bryman and Bell’s (2007) research, different resources of data should be used so as to improve the quality of the results. In this study, the interview as primary data is mainly conducted in the way of collecting the details complementing with secondary data. Different mechanisms of interviews are used, involving 2 face-to-face, 1 telephone and 2 written-paper interviews.

The interviewees are initially asked to freely give their perceptions about the project as well as how they consider the influences of national culture regarding NPD collaboration. The questions then will be asked along work value and organization culture on the basis of five dimensions of national culture. These interviews are semi-structured, giving the respondents the possibility to reflect upon the theme of interview, and describing their own perceptions that may not be considered previously (Bryman & Bell, 2007). During the interviews, the framework of questions is based on our frame of references because it can conduct the interview towards the theme which we focus on. Due to the fact that Chinese interviewees are located in China, the interview is taken by telephones and emails. Moreover, the re-interviews are fulfilled afterwards to get further responds when we realize that some of questions need to be discussed more.

### 3.3 Case Description

The case company chosen in this research is ABB (Asea Brown Boveri Ltd). The ABB-VOLVO project was a NPD collaboration project which was conducted by Robotic Power Train Assembly (PTA) department in ABB Shanghai and ABB Västrås between 2008 and 2010. The project based in Shanghai, China, and the aim of this project was to develop a new assemble line for truck engine. This ABB-VOLVO project was the third vision on the basis of upgrading the earlier two assemble lines which has been implemented in ABB Brazil and ABB Mexico previously.

The project team was composed with approximately 60 people from top managers to frontline workers who were mainly from China and Sweden together with the people from, USA, Mexico, Finland and some other countries. The whole group was mixed with employees from different countries raking from the top to the button consistent with the hierarchy structure. The objects have been involved in this research are one Swedish technical and commercial project manager, one Swedish technical writer, one
Chinese project manager, one Chinese senior mechanical engineer and one Chinese mechanical engineer in the ABB-VOLVO project.

4 Results and Discussion

This chapter will present the results and discussion of empirical findings and compare with theory framework to figure out the solution for the research questions.

4.1 Power Distance

<table>
<thead>
<tr>
<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
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</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>Organizational power is centralized in ABB. Decisions are almost made by top management.</td>
<td>We always respect the managers very much. We put managers on top and keep them over there.</td>
</tr>
<tr>
<td>employees</td>
<td>The hierarchy structure still exists...matrix structure is carried out in ABB Sweden for a while. And now, we are between these two but more close to matrix structure.</td>
<td>Mangers will distribute power to the group members and encourage us to participate in decision making. Also, we will go to manger to ask resources. It will have not any problems.</td>
</tr>
<tr>
<td>Swedish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
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</table>

Organizational culture

According to the results, the organizational power distance in ABB Shanghai is high in this case. Most of important decisions are conducted by top management in the NPD collaboration process. That is to say, the project based in ABB Shanghai is an organization with a centralized decision structure (Figure 2). For that, the existential inequality exists in the NPD team. The ideal boss is the one who commit the order, the subordinates are supposed to conduct the request from the boss (Hofstede, 1994), whereas projects based in ABB Västräs use the structure between hierarchy and matrix model. It has relative low power distance than ABB Shanghai with equal roles and the subordinates are expected to be the ideal resources (Hofstede, 1994). The reason why this NPD project is carried out in a way of hierarchy structure is that China is a country with long history of feudalization, and this residual culture still prevails presently in China which dominates the way of formulating organizational structure and collaboration among the colleagues for Chinese operation of ABB. Therefore, it would be better for multi-national organizations to match the rules of the local culture. As a result, that comforts the local people with the culture they were born, thus they can do the job better and under control. Otherwise, the unfamiliar culture need time to accept and absorb which causes waste of time and sometimes even financial lost.
The results of interviews suggest that Chinese and Swedish work value of power distance had significant differences in the context of NPD collaboration. Among the Chinese employees, especially for those at lower level people, the work value of power distance still dominates the relationship between managers and employees. Chinese strongly hold the work value that managers should be at the top and can never be offended at work setting. There are strong feelings of fear and disrespect to directly participate in communication with higher-level employees (Denison, 1990). On the other hand, Swedish very much emphasize the egalitarian among the employees at workplace in particular. From top, they are willing to distribute power to the bottom people and very much concern the importance of interaction with these people. Also, the bottom people dare to argue with bosses in work context.

Considering the work value differences, the conflicts easily rise during the NPD cooperation between these two nations. It firstly conducts the situation that Swedish top employees try to involve among the colleagues together while the Chinese fellows try to avoid it. The possible explanation for the conflict is the performance of reverence for authority in terms of Confucian values to Chinese (Miller et al., 2002). To this end, it slows down the efficiency of problem-solving process and also hides the potential problems which might be exploded in the future. Although it has been accepted that the use of flat-organization prevails in Sweden, the outcomes indicate that Chinese still depend highly on traditional approaches when processing NPD project. In short, the hint in cross-cultural NPD collaboration is that national cultural differences have great impacts on expected behaviors of employees, which results inconsistency among the project participators (Morris & Pavett, 1992; Nakata & Sivakumar, 1996; Schoening et al., 1998).

4.2 Masculinity versus Femininity

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<tr>
<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
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</thead>
<tbody>
<tr>
<td>Chinese employees</td>
<td>ABB is a goal-oriented company…everyone is busy with</td>
<td>We work closely, the same as with the Swedish employees.</td>
</tr>
</tbody>
</table>
The Influences of National Culture on NDP Collaboration

<table>
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<tr>
<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>Among the employees, Swedish</td>
<td>We are responsible for our own duty</td>
</tr>
</tbody>
</table>

**Organizational culture**

The results suggest that ABB Shanghai and ABB Västrås represent masculinity characteristic on the organizational level with feminine interpersonal relationship in NPD practice. The company always has its clear goals one after one and heading for them harshly cross the whole company in the context of NPD collaboration. The management style in ABB Shanghai and Västrås are more or less the same, they hardly pursue after the tasks, highly stress on careers and decisiveness in the collaboration of NPD (Hofstede, 1994). In this case, we argue that the two nations have the same organizational culture in terms of managing NPD project. It is common sense that China has the masculine culture background; hence the way organization behaviors can be explained. However, Sweden has long been perceived as a feminine country. That might say that the national cultural differences do not seem to have significant influences on NPD collaboration for multinational company. The organizational culture and management style are more about the original settings and concepts.

**Work values**

According Newmen and Nollen’s (1996) study, femininity emphasizes people relations, helping others and not drawing attention to oneself while masculinity reflects in merit-based opportunities for high earning, recognition, advancement and rewards at workplace. Both two nations show that close inter-personal relations have positive influences on NPD cooperation. An environment of good communication, support and trust are created at workplace so as to facilitate the conflict and enhance the efficiency of collaboration process.

On the basis of this phenomenon, it is very interesting to notice that the results showing the common character (i.e. femininity) between Chinese and Swedish reflect the differences in national culture prevailing in two countries: that is, guanxi theory (Zhang, Perks & Kahn, 2009) in China versus feminism in Sweden. It is no doubt that people plays important role in NPD collaboration. A combination of human relations and technical skills probably more positively affects outcomes than do technical alone (Nakata & Sivakumar, 1996). To this end, we assume that femininity appear to promote NPD collaboration endeavors.

**4.3 Individualism versus Collectivism**

<table>
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<tr>
<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish employees</td>
<td>ABB’s work orientation is more to masculinity.</td>
<td>We are working as a team … the relation among the colleagues is close. We help each other to discuss and solve the problems.</td>
</tr>
</tbody>
</table>
employees | share the knowledge and discuss the problems with all colleagues. | at workplace...knowledge is accumulated through self-learning by doing.
---|---|---
Swedish employees | Chinese protected their knowledge to increase their own competitive advantage. | In Sweden, we work independently... we share the knowledge and solve the problems together

**Organizational culture**

ABB is a Swedish company that its culture is close to individualism. The findings showed that this organizational culture also corresponds to the work style of project team in China. The Chinese people are becoming more and more independently at the workplace. They can also do their job excellent without anyone else’s help. Thus, in order to have a deeper insight on how individualism impact on the NPD collaboration, we need to invite the personal work value, so this part would be further developed in the following section of work value.

**Work values**

Surprisingly, the findings in terms of individualism-collectivism are not consistent with traditional views that collectivistic values are the dominant value in China during the past time period (Hofstede, 1980; Ralston et al., 1996). The findings suggest that both Chinese and Swedish employees work independently, produces a preference for self-achievement, openness to change and stability, all conditions in the workplace that likely foster and indicate higher work centrality (Jaw et al. 2007). Thus, it comes to the same conclusion that the new generation is with significantly higher sense of individualism than the current and older generation did (Ralston, 1995). The reason to explain is that with the high speed economic development for the last two decades in China, especially in south of China. From this perspective, Chinese greatly enjoy the open policies which bring them good educations and also provide more and opportunities to know the world. From this point of view, it is obvious that a high degree of individualism is associated with high efficiency of NPD collaboration. Also, both of Chinese and Swedish employees reflect that individualism has positive influences on collaboration at work setting. For example, self-confidence and perseverance speed up the project process by generating possibilities and overcoming obstacles.

When comes to knowledge-sharing perspective, Chinese and Swedish represent two extreme edges. For Chinese, they are individualism which has loose ties among members – everyone looks after his or her own interests first (Hofstede, 1980). In the NPD collaboration context, Chinese try to collect their own knowledge and hide them instead of sharing with others. They clearly understand that the more specific-knowledge they have the more power they can play with. On the other hand, Swedish seem to be nature to share the knowledge with others. They do not protect knowledge at all. They are biased to collectivism. As a result, it is easy to see the conflicts in the NPD collaboration between these two nations. For example, the
absence of the employees who have specific knowledge will totally defer all the schedule of the project if he/she does not share this knowledge before. Thus, the different social welfare might provide some hints to explain this big difference. Swedish enjoy the mature welfare which backs them up to pursue a higher life quality whereas China just moves from primary stage of socialism. Chinese people are still bustling about the living. So far, it comes to the conclusion that individualism promotes NPD. On the other hand, so does collectivism. Going one step further, we argue that more successful NPD collaboration may also occurs in tandem with higher degrees of individualism and collectivism if the paradox is reconciled probably.

### 4.4 Uncertainty Avoidance

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<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
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<tbody>
<tr>
<td><strong>Chinese employees</strong></td>
<td>The company encouraged us to challenge ourselves on the development of know-how and technical issues.</td>
<td>We prefer to have clear guidelines in order to finish the jobs... and implement the requirements in the way that managers are expected instead of taking risks.</td>
</tr>
<tr>
<td><strong>Swedish employees</strong></td>
<td>The company doesn’t encourage risking taking, but it sets budgets on the unpredicted risks of each project.</td>
<td>If the decisions have possibilities to yield benefits, we will take it even it is risky... of course, the balances between risks and benefits will take into account very much.</td>
</tr>
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</table>

**Organizational culture**

The entire ABB Group does not encourage the employees to take risk in NPD projects, it is a conservative organization, because the scope of the industry decides the risk might cause huge amount of monetary lost. Even though, the company still has part of the budgets on the unpredicted risk. This high uncertainty avoidance is somehow related to the organizational structure, the rules and roles are played clearly within the organization, hence, everyone take the responsibility for himself. However, concerning this NPD cooperation project, the situation is special, the ABB headquarter is far away from China which means the control cannot reach so far even with good communication approach. Thus, under the multi-nation environment, NPD project team has got more autonomous to handle the emergency and sometimes make the risky decisions. That might explain why the project manager here has the authority to take risk as long as the risk is reasonable; and the manager in Sweden is with low power to this. Another thing is that the company supports the lower position employees to develop the know-how and techniques during the project collaboration. This is because compared with the benefits it will bring up to the company that is relative low cost and low risk. To sum up, the finding show that there are no obvious cultural influences being involved on organizational level of NPD collaboration which corresponds to the proposition that national culture differences may do not reflect on culture practices (Hanges & Marcus, 2004).
The Influences of National Culture on NDP Collaboration

Work values
When the topic goes to uncertainty avoidance, the relationship may be understood in terms of two dimensions of uncertainty avoidance – structured guideline and risk taking. It is clearly noticed that Chinese are used to implement the jobs with strict and detailed guidelines. Also, results say that Chinese employees are very much risk aversion even the top management encourage them to do so. The reason of that might be lack of trust among different positions of employees. It is consistent with Lettler, Leverick and Bruce’s (1995) research, which points out that mistrust can greatly hamper the successes of NPD. Nevertheless, Swedish are willing to take risks if it has possibility to yield any benefits at workplace.

Of course, structured planning is critical for reducing the possibility and negative effects of group conflicts, confusion, redundancy and overlapping authority (Nakata & Sivakumar, 1996). Formalization increases the amount of information transferred among NPD participants, which, in turn, positively affect the process. On the other hand, planning can limit innovative ideas or unduly narrow the window through which ideas must pass. As with structured guideline, strong risk-taking orientation can result expensive mistakes and affect schedules and budgets, meanwhile it is a key to create a playground for promoting innovation. Based on the above discussion, we assume that both high and low uncertainty avoidance appear to support NPD collaboration, which depends on the situations we belong to.

4.5 Long-term versus Short-term orientation

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<tr>
<th>Quotations</th>
<th>Organizational culture</th>
<th>Work values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese employees</td>
<td>We work for long-term relationship with customers… of course; the Economic department more focuses on short-term goals such as finical figures.</td>
<td>We work hard day and night in order to finish the project on time even without some compensation.</td>
</tr>
<tr>
<td>Swedish employees</td>
<td>ABB is the company looking for the profit for this and next year… they are not long-term orientated.</td>
<td>We work from Monday to Friday as in Sweden. We sometimes work in weekend so as not to behind the schedule.</td>
</tr>
</tbody>
</table>

Organizational culture
Organizational culture associated with long-term and short-term orientation is perseverance and thrift; In this case, two levels of this dimension are taken into account. Firstly, the organization of both ABB Shanghai and ABB Västrås aims at the short-term benefits of their NPD projects, while on the personal level they are more long-term orientated in general. According to the findings, the company has a lot of NPD projects, they are conducted independently. The profits of the recent and coming years are what it is looking for to the top management. Nevertheless, the employees
are looking for long-term relationship with customers under the NPD context. It is necessary to point out that there are no conflicts between long-term and short-term ideals in this context. Because of the employees both from ABB Shanghai and ABB Västrås have to follow the order and demand from the top management and policies. They accepted the reality, doing their jobs well is enough for the company. Therefore, long-term and short-term orientation has no big influence on NPD collaboration in terms of national culture. It very much depends on company’s strategy instead of cultural influences.

**Work values**
Long-term and short-term orientation tie a range of Confucian-like work values. One particularly value of perceptiveness that relates to NPD collaboration is long-term orientation. In this case, Chinese employees pursue the goal of finishing project on time which ensures them to get extra bonus and vacation after (long-term benefits). In the project, Swedish also work hard as Chinese, and sometimes even harder. To this end, the positive pole is the same value of Chinese and Swedish indicating a future-oriented mentality such as persistence and hard work. In turn, it forms potential competitive advantages across the organization. Thus, the national cultural trait that helps to explain the case is strong long-term orientation, which promotes perseverance and the willingness to apply many hours toward a common goal (i.e. completing a project). From viewpoint of discussion above, the relationship between long-term orientation and NPD collaboration appears to be positive.

Interestingly, the findings note that Swedish employees will not work overtime without compensation while Chinese can bear to lose some compensation for overtime working during the process of achieving the goal. To explain this phenomenon, tolerance (short-term loss) might be an appropriate indicator to systematically measure Chinese work value (Fang, 2003). Confucian dynamism (i.e. long-term versus short-term orientation) adopted as the official school of thought in China centuries ago, leaves many heritage in society today. It not only emphasizes long-term achievement but also short-term loss, which is very much representing the work value of Chinese employees (King & Bond, 1985).

### 4.6 Harmony

<table>
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<tr>
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<th>Organizational culture</th>
<th>Work values</th>
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</thead>
<tbody>
<tr>
<td>Chinese employees</td>
<td>Harmonious communication ensures the long-term cordial cooperation…try our best not to raise conflicts.</td>
<td>We very much consider context that our counterparts belong to…harmony relationship is emphasized among the group members.</td>
</tr>
<tr>
<td>Swedish employees</td>
<td>We resolve conflicts by communication and discussion.</td>
<td>We try to point out the problems quickly and directly when it is necessary.</td>
</tr>
</tbody>
</table>
Organizational culture
In terms of harmony, both nations’ employees tend to avoid conflict and maintain a
benign relationship with business partners in multi-national NPD collaboration. The
different thing is that Chinese perceive harmony as the prerequisite of business-based
personal relationship and network (Rampersad et al., 2009). Under no circumstance
Chinese will raise the conflict spontaneously, even the collision had been brought up,
and Chinese tend to perform as mediator to untie the awkward situation for them.
Because they think the healthy and friendly relationship is good for establishing
network which is seen as very important in Chinese business culture in terms of
internal and external cooperation. Furthermore, harmony helps the organization
maintain long-term cooperation with partners such as suppliers in a long period NPD
project. Also, it should be aware that persuasion of harmony will course inefficient in
NPD collaboration if it is handled inappropriately. On the other hand, Swedish’s
persuasion of harmony is relative wishy-washy compared with Chinese. Swedish
would like to resolve conflicts instead of seeking for harmony all the while in
business, which represent another aspect of harmony (i.e. the process of conflict
management and resolution) (Chen & Ma, 2002). They believe that through
communication and discussion the conflict can be solved eventually or to some extent.
And misunderstanding and misleading would occur without correctly interpret the
conflict in the multi-cultural collaboration project. All in all, findings figure out that
harmonious relationship with business partners on the organizational level for NPD
project is impacted by current situation and business context rather than national
culture. Harmony does somehow relate to the performance of the NPD collaboration
respectively. Both nations aim to achieve it but in different ways. The business
relation can be said depending more on the local business conditions and the
requirements of the project.

Work values
Findings present that both Swedish and Chinese employees are pursuing harmonious
relationship with counterparts in NPD collaboration. However, slight differences are
observed between Swedish and Chinese employees in terms of harmony. In the
context of requiring an opinion at work setting, the results imply that most of Chinese
employees show a tendency to giving a neutral answer, while only part of them
behave the same as Swedish employees who prefer to express directly expressions
such as yes/no (Peng et al., 2000; Liu & Chen, 2000). When Chinese are challenged,
they may keep silent and hide their true mind, especially in public even if they feel
they are right, hoping to save each other’s face and keep a harmonious relationship. It
is because to break the harmony is considered to signify and uncooperative attitude,
which is contravention of a relationship in the Chinese reciprocal and hierarchical
network (Chen & Ma, 2002). However, the findings surprised the assumptive
outcomes by authors in terms of NPD collaboration (i.e. conducting to problem
pending which drag on entire schedule due to the case of “push and avoid pushing
back between two parties). It indicates that this difference has no big influence on
NPD collaboration in general. Thus, the possible reason is that Chinese employees are used to contact with the party afterwards through a more prepared manner regarding the pending problems which will be solved on time yet.

Looking back to harmony, for Chinese, the continuous improvement of harmony is the most fundamental tenet for cultivating oneself advocated by Chinese philosophers. And, the basic Chinese communication rules that are regulated by the principle of (ren, yi and li) self-restraint-self-discipline, indirect expression of disapproval, saving face for counterparts is to pursue a conflict-free interpersonal and social relationship (Chen & Xiao, 1993). Therefore, it greatly shapes the behaviors of coping with confrontation. When moving to Swedish side, harmony is also considered as an important factor for Swedish in work setting. Nevertheless, it is somehow perceived as a communication strategy rather than a belief ingrained in culture. Such outcome might attribute to the individualistic characteristic such as frankness independently and self-confidence which has been running in Swedish society for a long time and continues to influence Swedish behavior in the contemporary age.

5 Conclusion and Future Research

The chapter will draw the conclusion from our research study, and implications and suggestions for further research will be presented as well.

5.1 Conclusion

The purpose of this study is to understand and identify how national culture influences on NPD collaboration. In this research, we investigated the effects of national culture in the context of NPD collaboration between China and Sweden by means of organizational culture and work. Firstly, in terms of organizational culture, the study indicates that power distance has huge influences on NPD collaboration, while the impact of masculinity versus femininity is mediate. Such findings are in line with Webster and White’s (2009) study which indicate that organizational culture is partially determined by national culture in which it exists. For example, China’s hierarchy culture related to power dominates present organizational structure in the project. Yet, the application of hierarchy structure greatly ensures the fluency of NPD collaboration process with local people. Secondly, concerning work values, the influences of power distance and uncertainty avoidance are ranked at the first place, whereas the influences of individualism versus collectivism, masculinity versus femininity, harmony and long-term versus short-term orientation are relative weak. Such findings support the validity of work-related construction of Hofstede’s national culture model (Newman & Nollen, 1996). The result suggests there is clear linkage between national culture and work values which in turn affects NPD collaboration on a different degree level (Schwartz, 1999; Aycan, 2000; Jaw et al., 2007). For example, in terms of power distance dimensions of national culture, high degree of participation in decision making at workplace greatly influences on communication process of NPD collaboration whereas harmony has only slightly effects on communication process.
However, the study also finds that some organizational characteristics including uncertainty avoidance, long-term and short-term orientation and harmony have barely effects on NPD collaboration. The results are opposite to the proposition that organizational culture is largely depending on the national culture (e.g. Adair et al., 2001; DeVoe & Lyengar, 2004). This implies that there could be context-specific factors that affect performances of NPD collaboration regardless of in which country the NPD project takes place. It means that organizational culture as an independent is somewhat apart from national culture. It is consistent with one of the criticisms towards Hofstede’s study which indicates that Hofstede’s framework did not distinguish the influence of organizational culture (Wilkdsmann et al., 2009) and his study scales do not differentiate cultural practice from cultural values (Hanges & Marcus, 2004). For instance, long-term versus short-term orientation of organizational culture is originally set by company’s strategies, which is beyond national culture influences. Therefore, it should be keep in mind that research results from one country should be applied with prudence to other countries.

5.2 Limitation and Future Research

Despite its contribution for both academics and practitioners, the study is not free of limitations, which, future research can be easily addressed. The study firstly is limited to examine the bivariate relationship between organizational culture and work values dimensions in NPD collaboration context. It is because the main purpose of this study is to investigate the impact of national cultures on NPD collaboration based on a horizontal approach through those two aspects rather than a vertical comparison. Therefore, future study could be conducted to examine the inter-relations between organizational culture and work value of different countries in the context of NPD practice. The second limitation pertains to the issue of sub-cultures within one nation. The present research only aims to study the different national culture between China and Sweden in general. Consequently, the sub-cultures of one nation are excluded in the research. Thus, future researchers may wish to turn their attention towards this direction and investigate more detailed sub-culture issues within one nation.

6 Managerial Implication

In the wide area of management, an extensive amount of research has indicated that people in different nations behavior differently because they hold different fundamental cultures about business. The most important implication of this study is that management practice should be adapted to the local culture in order to be most effective. First of all, the organizational structure of NPD collaboration projects in MNC should cater to the local culture, for example, the low power distance organizational structure (i.e. matrix structure) doesn’t fit well Chinese high power distance context (i.e hierarchy structure) when the NPD collaboration project was carried out in China. Secondly, an emphasis on low power distance is likely to encourage employees’ participation in decision making, but might to worsen
efficiency in high power distance countries in a NPD collaboration project because of different cultural background among the participators. Thirdly, substantial use of structured planning in high uncertainty avoidance country can greatly improve fluency of NPD collaboration process, but hinders innovative idea generating on the other hand. In a word, it should be noted that companies are advised to take various national culture as a given and regulated their practice according to the context surrounding NPD project.

Besides, the influences of a global form of organizational culture should be adverted. A convergence approach proposes that people in an international organization will embrace the attitudes and behavior common to people in other nations despite cultural differences (Ralston et al., 1993). The concept of global organizational culture may be viable in the long term if national and organization cultural proves to be a transitional state, and value assimilation is a mutual process (Ralston et al., 1997). However, on the other hand, the transition of the global organizational culture is not in the short term, especially when many different sub-dimensional are involved. Therefore, focusing effort on understanding and coordinating the different cultural values would be a more beneficial strategy than trying to force-fit them into a single organizational culture (ibid). Concerning ABB in China and Sweden in particular, a global organizational culture is only partially employed. Especially in China branch, national culture still dominates the way of people’s behaviors. Thus, national culture should be firstly considered by the managers when collaborating with Chinese. These managers should not only understand the influences of organizational in particular but also the local culture in general. There is much to be learned from exemplary management practice in other cultures, the differences between cultures confine the transferability of management practice from one to the other.


Reference


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Appendix

Interview-Guide (ABB Våsträs)

Part I

Warm-up Questions
1. Do you wish that your answers staying anonymous in this study?
2. What is your education background and work experience (i.e. any expatriate experience)?
3. What is your title in this project, and its responsibility?
4. Could you please briefly introduce ABB-Volvo project (e.g. the structure of the work team, the number of team members)?
5. What’s the trigger for you to work in China?

General Questions
1. How do you perceive culture differences between China and Sweden?
2. What do you think of the influences (positive and negative) of these two national cultures on ABB-Volvo project collaboration? (e.g. difficulties in communication, trust, working habit etc.)
3. Have you received any training programs regarding Chinese culture before departure?

Part II

Organizational Culture
1. How do you perceive organizational culture in ABB Sweden?
2. Did you identify any difference of organizational culture in ABB Västerås and Shanghai when you work in ABB Shanghai?
3. How did these organizational cultural differences influence the ABB-Volvo project collaboration from different aspects?
   1) Power Distance: hierarchy structure
      a) How did the hierarchy structure look like (high or low) in the ABB-Volvo project team in your opinion?
      b) How did this structure affect the ABB-Volvo project collaboration?
      c) How did you conduct the decision-making process in this project (idea boss or voice from the employees)?
   2) Individualism vs. Collectivism
      a) How do you define the traditional Swedish work relationship?
      b) How do you perceive the work relationship among colleagues in ABB-Volvo project?
      c) Are there any positive or negative influences on ABB-Volvo project collaboration regarding work relationship?
   3) Uncertainty Avoidance
      a) Does the company encourage risk taking? Example?
      b) What extent is the autonomous in ABB-Volvo project for individuals?
c) If the situation requires to break or against the rules and regulations of the organization. What’s the consequence?

4) **Harmony: wholesomeness, free-conflict, communication**
   a) Does ABB try to keep good relationship with its business partners? Please raise an example if possible.
   b) How does ABB deal with the conflict of interest during the cooperation with partners (e.g. suppliers)? Especially with the Chinese companies.
   c) Did Chinese companies show their “harmony” (wholesomeness and non-confrontation) characteristic when dealing business with ABB? If so, how did ABB respond to it?
   d) What do you think the idea of harmony is in the inter-organizational context? Obstacle or catalyzer?

**Work Value**
1. How do you perceive the work values of Swedish?
2. Are there any differences between Chinese and Swedish work value in your opinion according to your work experience in Shanghai ABB?
3. How did these work value differences influence the NPD collaboration from different aspects?

1) **Power distance: power and status: decision-making, respect, authority**
   a) In your opinion, how do you think about the importance of power and status for an employee/manager?
   b) Do you encourage the employees in the team to participate in decision-making process and flat-communication?
   c) Are there any positive/negative influences on ABB-Volvo project regarding power and status of the employees? Example?

2) **Individualism-collectivism: contact among colleagues, work independent**
   a) How do you think about the importance of self-enhancement, openness to change for an employee/manager?
   b) With these characteristics, how do you perceive the positive/negative influences when managing ABB-Volvo project with other fellow workers?

3) **Masculinity-Femininity**
   a) How do you think about the self-achievement and the inter-person relation (or life issue) at workplace?
   b) How do you perceive the differences between Chinese and Swedish employees in ABB-Volvo project regarding work centrality?

4) **Uncertainty avoidance: job security and descriptions**
   a) Do you perceive any differences between Chinese and Swedish employees regarding intentions of taking responsibility, willing to provide new ideas and fully following the orders and rules from the top?
b) Are there any positive/negative influences of ABB-Volvo project collaboration in terms of uncertainty avoidance in your opinion? Example?

5) Perceptiveness: diligence, hard working to achieve long-term goals
   a) How do you perceive the work value of confucian dynamism between Chinese and Swedish employees?
   b) How do you think the Chinese way of working such as overtime working during holidays? And how does it look like for Swedish?
   c) In your opinion, how do you think the influences of confucian dynamism on managing ABB-Volvo project collaboration? Example?

6) Harmony
   a) How do you think about the importance of harmony (i.e. conflict-free communication relationship with colleagues) in terms of work-related value to an employee at workplace?
   b) When comes to a conflict opinions to a specific problem at workplace, how do Swedish employees behave? (e.g. directly and clear expression such as yes/no, or hide raw emotions by giving a neutral answer)
   c) When Swedish employees find the mistakes of colleagues, how do they behave? (e.g. keep silent, directly expression)
   d) Are there any positive/negative influences on ABB-Volvo project regarding harmonious relationship among the employees? Example if possible?

Others
1. Are there any further comments regarding the influences of national culture on NPD collaboration in ABB-Volvo project?
2. If needed, can we require additional questions by this way (documented-paper)?

Interview-Guide (ABB Shanghai)

Part I

被访者背景
1. 您希望此次面试过程以及结果为匿名形式吗？
2. 请您简述一下您的教育背景以及工作经验（如海外工作经验等）？
3. 请问您在 ABB-Volvo 项目中的职务以及其职能是什么？
4. 能否请您简要介绍一下 ABB-Volvo 项目概况（例如工作团队的组织结构，人员数量等）？

研究课题常规性问题
1. 请问您是如何看待中国与瑞典之间民族文化差异的？
2. 请问您如何看待这两个国家的文化在对 ABB-Volvo 项目中员工合作所产生的正面或负面的影响（例如沟通，信任，工作习惯等方面）？
3. 请问您在参与此项目之前有没有接受过任何关于瑞典文化的培训？

Part II
组织文化（公司文化）
1. 请问您如何看待上海 ABB 公司的组织文化（公司文化）？
2. 请问在你看来瑞典 ABB 公司以及中国 ABB 公司在组织文化（公司文化）上有没有差别?
3. 如果存在差别，那这些差别是通过哪些方面影响此次项目中员工合作的?
   1) 权利差距
      a) 请问您认为 ABB-Volvo 项目的组织结构是否存在明显的等级制度?
      b) 请问这种等级制度给项目中员工合作带来了怎样的影响?
      c) 请问在此次项目中相关事物的最终决定权主要由谁掌握（上层管理员工或者是团队员工与上层管理员工共同商讨决定）？
   2) 集体主义 vs. 个人主义
      a) 请问您如何看待中国传统的员工间人际关系的? (例如上下属关系等)
      b) 请问在 ABB-Volvo 项目中工作伙伴之间的合作关系是怎么样的（请从工作角度出发）?
      c) 请问此种合作关系是否对 ABB-Volvo 项目中员工间的合作产生正面或者负面的影响?
   3) 不确定性规避率
      a) 请问上海 ABB 公司是否支持和鼓励员工敢于挑战未知吗（请举例）?
      b) 请问在 ABB-Volvo 项目中员工拥有多少的自主权?
      c) 假设当下情况要求员工打破原有的公司规章制度，它所带来的后果可能会是什么（请从公司角度出发）?
   4) 和谐型
      a) 请问 ABB 上海在与其他本土公司的合作中看重公司与公司间的和谐关系吗?
      b) 请问 ABB 上海是如何维系与其他本土公司之间的合作关系的?
      c) 请问 ABB 上海是处理商务来往上的利益冲突以及矛盾的？是否将和谐作为一个较为重要的前提?
      d) 请问您和谐对新产品开发的影响是正面的还是负面的，是合作的障碍还是催化剂?

工作价值观
1. 在您看来，中国员工的工作价值观是怎样的?
2. 就 ABB-Volvo 项目而言，请问瑞典工作价值观和中国工作价值观是否存在明显的不同?
3. 如果存在差别，那这些差别是通过哪些方面影响此次项目合作的?
   1) 权利差距: 掌握权利大小，受尊敬程度
      a) 请问您是如何看待权利差距在您心中所处的地位的?
      b) 请问在 ABB-Volvo 项目中，您是否鼓励下层员工共同参与到问题研究及决定最终结果的讨论中?
      c) 权利差距对于员工间合作而言，在 ABB-Volvo 项目中是产生正面还是负面的影响？（从瑞典和中国员工角度出发）
   2) 集体主义 vs. 个人主义: 员工间的信息交流，工作独立性
      a) 对于员工而言，请问您是如何看待自我价值提升和自我开放程度的重要性的?
      b) 就这两方面而言，它们对 ABB-Volvo 项目员工间合作是否有产生正面或负面
的影响？（从瑞典和中国员工角度出发）

3) 男性 vs. 女性领导权
   a) 请问您是如何看待个人自我满足和个人人际关系在工作中所处的地位的？
   b) 请问在此次项目中对于中国员工和瑞典员工就工作对于重要性而言，您是如何看待两者的差异？

4) 不确定性规避率
   a) 就敢于挑战常规和简单执行上级指示两方面而言，您是如何理解中国员工和瑞典员工在 ABB-Volvo 项目中的不同表现？
   b) 就这两方面而言，它们对 ABB-Volvo 项目中员工间合作是否有产生正面或负面的影响？

5) 前瞻性
   a) 就长期与短期目标取向而言，请问您是如何看待中国员工和瑞典员工之间的差异？
   b) 对于加班加点完成工作的方式，您是如何看待的？这种方式是否在 ABB-Volvo 项目工作的瑞典员工中有所体现？
   c) 请问您认为就长期与短期目标取向方面而言，其是否对 ABB-Volvo 项目中员工间合作有所影响？

6) 和谐性
   a) 请问您是如何看待在员工间和谐的重要性？
   b) 在员工合作中，就具体问题两者产生分歧，中国员工一般如何处理这类情况的？（例如：直接表达自己的意见，同意或不同意，还是给出一个中立的意见）
   c) 当在合作中发现对方设计上的错误或不足时，中国员工一般采用何种方式相互沟通？（例如：直接表达自己的意见，或是给对方留面子用更婉转的方式表达）
   d) 就和谐而言，它对 ABB-Volvo 项目中员工间合作是否产生正面或负面的影响？

备注
1. 除以上问题外，就在 ABB-Volvo 项目中的员工合作中您是否有其它意见和理解？
2. 如果有进一步需要，是否能够通过这种方式继续联系您接着回答一些补充性问题？