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The impact of Chinese culture on the performance of international projects

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**THE IMPACT OF CHINESE CULTURE
ON THE PERFORMANCE OF INTERNATIONAL PROJECTS**

by

Shaowen (Wendy) Ding, Bachelor of Science, PRC, 1987

A thesis

Presented to Ryerson University

**in partial fulfillment of the
requirements for the degree of
Master of Engineering
in the Program of Civil Engineering**

Toronto, Ontario, Canada, 2006

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis, except for part of the contents showing in "Section 3.2, 3.3 and Case 3.3-2 published in 'Contractual & Business Relationships in China: Some Societal and Cultural Factors at Play' of CSCE 2005 conference proceedings. This conference paper is edited and co-authored by Dr. Paul S.H. Poh.

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BORROWER'S PAGE

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**The Impact of Chinese Culture
On The Performance of International Projects**

Master of Engineering, 2006

By Shaowen (Wendy) Ding

**Department of Civil Engineering
Ryerson University**

ABSTRACT

In the last two decades, a substantial number of foreign investments brought thousands of international projects to the PRC. Westerners undertaking these projects with their conventional management model as well as implementation certainly face challenges stirred by the Chinese's culture and traditions. With the PRC poised to take on a more dominant role in the world economy, there is a pressing need for foreign investors to understand the role that the Chinese culture plays in the performance of international projects. This paper prompts foreign investors to strongly consider potential impacts of the Chinese culture on international projects performed in China. Failure to respect China's local model and practice oftentimes cause pricey delays or even total loss.

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1.0 Introduction

1.1 The Chinese Construction Industry

With the economic reforms and the move of opening up to the outside in the late 1970s, the People's Republic of China (PRC) has experienced the highest economic growth in its history. A few impressive statistics have emerged since the early 1980s; China's Gross Domestic Product has averaged 9% growth annually (China Statistics Press, 2003), and its construction industry has averaged 22% growth annually (China Statistics Year Book, 1999 to 2003).

With the recent admission into the World Trade Organization (WTO), the continued liberalization of political and economic reforms, as well as an increasing inflow of foreign direct investment, the Chinese construction market appears extremely attractive to foreign contractors, consultants, investors as well as suppliers of special goods and services. It has been estimated that some \$50 billion (US) worth of construction work is up for grasp for non-Chinese participation each year (Hong Kong Trade Council 2003/4). To date, China has become the largest recipient of FDI (OECD & OCDE, 2004), and the second largest construction market in the world after only the United States.

Despite its phenomenal growth in the last twenty-five years, however, the Chinese construction industry – particularly its business and trade practices – is not as mature as what the statistics would have the investors believe. In terms of the economy, China is experiencing a quick shift from a centrally planned economic system to a market-oriented economic system. In terms of politics, China struggles to implement models of the Western democratic system into its centralized state-power system. This change has of course been relatively slow. As well, the Chinese government has total control over the administration, the legislation as well as the judicature; these systems correlate with each other and are by no means independent. The rapidly growing economy together with the lingering political platform creates a negative correlation, which combining with the traditional cultural roots, create numerous risks and uncertainties for foreign participants in the Chinese construction industry. The following essays explore how the Chinese culture affects international participants and their construction projects. Three key local players in the Chinese construction industry are first introduced.

Local Chinese Governments

Few governments interfere with their nations' construction activities to the extent that the local Chinese governments do. These municipal governments are involved in not only the project authorization, design approval, bidding processes and work permits, but also the quality inspection and performance testing, in addition to the final acceptance for major construction activities as well as procurement of critical equipment. However, it should be noted that the governments are not involved in the bidding process when it is a foreign or private owner who funds the project. Nonetheless, the local governments have the authority to run national laws in their favor, in addition to modifying local as well as national policies according to their desire.

Design Institutes

The function of design institutes in China share similar characteristics with design sectors in Western countries, but only with a greater focus on the calculations as well as the preparation of construction drawings. In the past, their work seldom involves project scheduling and cost evaluation. To date, the majority of design institutes specializing in industrial projects are state-owned, and only a few are collectively owned or foreign-owned. These state-owned design institutes have their advantages in inexpensive labour and design qualifications, which comply with the requirements of the Chinese government. Many foreign engineering firms and investors choose to cooperate with them for industrial projects.

Construction companies

Since the late 1970s, most construction companies in China have experienced a greater degree of remodeling. The monopoly of state owned construction companies started to wane in 1984 when domestic private construction services were permitted to develop. Within the same period, foreign engineering firms were permitted and introduced to projects fully or partly financed by foreign capitals on a project by project basis. Subsequently, these foreign companies began to work with local construction companies to take advantage of construction qualifications and cheap labors of the latter.

To adapt to the rapidly changing construction atmosphere, organizational styles of state-owned construction companies diversified. Afterward, many large corporations have

either disappeared or reduced in size. As for the other corporations, they face technical software as well as hardware challenges. For the competitive private construction companies with a better and more flexible financial structure, they strive for high profits and pay no attention to their corporate image and/or culture

1.2 Why choose the topic?

Substantial investments from advanced countries have brought thousands of international projects to China. China's implementation of Western project management theory has stirred many dilemmas confronting their own tradition and culture. With China poised to take on a more dominant role in the world economy, there is a pressing need for foreign investors to understand the role that the Chinese culture plays in the performance of international projects. Researcher Low indicated as early as 1997 that it was important for international construction firms to take note of the deeply rooted cultural practices and beliefs of their Chinese associates, since the Chinese construction market is a big attractive one in the foreseeable future (Low, 1997).

Upon searching over 1,000 academic papers in the leading journals dated since 1991, it is evident that there are too few documentaries focusing on the correlation between Chinese cultural issues and its construction industry. Cultural conflict is an underestimated cause of trouble in project execution, particularly in a country like China, which opened its doors to foreigners overnight after shutting them out for 30 years. In the 1980s, "many Chinese believed that capitalist society was full of deception; whereas westerners thought Chinese were liars and cheaters" (Fang 2000). After 25 years, the Chinese have developed a different perspective of the westerners, who have gained the Chinese's trust with their code of conduct and mature business culture. Foreigners, on the other hand, still doubt and misunderstand the Chinese in many aspects.

It is nonetheless understandable that the discrepancies between cultures easily create misunderstanding and ineffective communications that usually fog up international projects. How to remove the cultural barrier and then prepare the multicultural project team to adapt with the host's local custom is of paramount importance to international professionals worldwide. The Chinese construction market, with an estimated worth of \$50 billion (US) for non-Chinese participations each year (Hong Kong Trade Council,

2003/4), requires, more urgently than ever, foreign investors to study the impact of Chinese culture on international project performance.

1.3 The Objective

This paper aims to emphasize on the significance of cultural impacts in the construction industry of China, where thousands of international projects have been already completed or still going on. The prosperity of the Chinese construction industry is expected to continue for the next two to three decades. By using case studies, this paper illustrates how the Chinese culture affects project performance, and thereby arrive at a suitable means to bridge the cultural gap between Chinese and foreign professionals, in order to improve project performance in multicultural environments over the long term. The goal of the research is to be achieved by:

- Promoting the importance of culture management in managing international projects
- Conducting in-depth analysis on the correlation between the nature of Chinese culture and international project performance
- Collecting actual cases from international industrial projects to support this paper
- Helping Chinese professionals recognize their own advantages and disadvantages
- Assisting foreign professionals to understand and respect the unique Chinese culture
- Encouraging westerners and the Chinese to prepare themselves for effective mutual communication in the frontiers of cultural paradigms
- Encouraging westerners to impose a western managerial system with a cultural adaptation on international projects, while suggesting Chinese companies to take on global perspectives in their growth, find ways to integrate western ideas into their system, and achieve a higher echelon of organizational performance

1.4 Methodology

The Emic Approach

Two basic approaches are generally used in the study of cultures: emic and etic (Berry, 1980). The term emic is culture-specific, and etic is culture-general. In cross-cultural

studies, the etic approach is to use culture-general variables to measure behavior patterns in one culture and compare them with other cultures (Pike 1967). The research conducted by Hofstede (1980) dramatically shaped the field of cross-culture study. He employed the etic approach to examine behavior patterns by comparing neighboring cultures. He created four dimensions to measure cultural differences among 40 modern nations in his early research in the 1980s. In the 1990s a fifth dimension was added in his research (Hofstede, 1990). The five dimensions are Large Power Distance vs. Small Power Distance, High Uncertainty Avoidance vs. Low Uncertainty Avoidance, Individualism vs. Collectivism, Masculinity vs. Femininity, as well as Confucian Dynamics. These five dimensions are discussed in Chapter 2.2. Since the publication of Hofstede's *Culture's Consequence* (Fang, 1998), extensive research has adopted the etic method.

The emic method is to employ culture-specific variables to explain the behaviors in the culture. In comparison with the etic approach, the emic approach aims to achieve an in-depth understanding of a specific culture in a qualitative way. Fang indicated that the etic bias should be complemented by more emic studies (Fang, 1998). By adopting the emic approach, this paper aims to penetrate the idiosyncratic traits of Chinese culture, in order to seek an explanation on the performance of international projects in China.

Two-way Communication Method

The linear one-way communication method is commonly used in academic study. Postal or email questionnaires are examples of one-way communication (Loosemore, 1999). Some researchers conclude that a large amount of studies on work values and the culture have employed questionnaires formulated from a western perspective (Gamble and Gibson, 1999). Hofstede's research outcome is also extracted from postal or e-mail questionnaires.

However, since this method easily results in misunderstandings and irrelevant answers between the collected data and the targeted problems, it is much criticized. Trice and Beyer (1993) argued that questionnaire-based approaches make culture-related questions implicit and perhaps make the respondents' answers partial or even unaccountable. Moreover, it is agreed that even in face-to-face conversation, the interviewees may have difficulty in totally understanding the questions. Undeniably, some survey results obtained for this paper were not achieved easily, as the interviewees were unable to respond to the

questions due to their limited education and experience. As a result, a two-way communication method is selected for this paper in order to achieve an accurate investigation, and avoid misunderstanding as well as distortion,

Background of Cases

This paper employs a survey with 25 professionals in managerial positions, who worked or are working with 11 international projects (see Table 1) located in the eastern coastal cities of the People's Republic of China. 7 out of 25 interviews were not up to standard and thus excluded in this study. Although these projects as case studies differentiate in size and total cost, they share the following similarities:

- Financed entirely or at least 50% by foreign investments
- Involved complex operations with professionals from at least two to three different cultural backgrounds
- Employed organizations and suppliers from different countries
- Classified as chemical or petrochemical projects (except for project No.11)
- Located in the eastern coastal cities of People's Republic of China.

These participants for the interviews are speaking on behalf of either the owners listed in Table 1 or the foreign engineering firms shown in Table 2. The local design sectors involved in these cases are listed in Table 3. 12 cases are carefully chosen from the 11 international projects for this paper. The scenarios highlight challenges and conflicts related to cultural differences. Also note that western perspectives are not analyzed systematically in this paper. Several views of the westerners mentioned in this paper are specifically referring to the USA, UK, France and Germany.

Table 1- List of Projects

	Projects	Nationality of Owners	Project Location
1	CNOOC and Shell Petrochemicals Com. Ltd	Jointed by UK & PRC	Guang Dong Province
2	SECCO Petrochemical Complex China	Jointed by UK, Singapore & PRC	Shanghai
3	Yangzi-BASF	Jointed by Germany & PRC	Jiangsu
4	ICI Swire Paints (Shanghai) Ltd.	UK	Shanghai
5	Dupont China Holding Co., Ltd	USA	Guang Dong Province
6	Air Products and Chemicals Inc.	USA	Shanghai
7	Rhodia Silicones (China) Holding	France	Shanghai
8	Ferro (SuZhou) Ceramic Color & Glaze Com. Ltd	USA	Jiangsu Province
9	Akzo Nobel Car Refinish Co. Ltd	Holland	Jiangsu Province
10	Danisco Ingredients Co. Ltd	Danmark	Jiangsu
11	WSI West Gate English Learning Center	Spain	Shanghai

Table 2- List of Foreign Engineering Firms

	Foreign Engineering Firm	Home Country
1	AMEC Engineering & Consulting Co. Ltd	UK
2	Aker Kvaerner China	USA
3	Bectel China	USA
4	Lurgi Engineering Company Ltd	Germany
5	Maison Engineers & Constructors	USA

Table 3- List of Chinese Design Institutes

1	Shanghai Chemical Industry Design Institute
2	Tian Chen Design Institute
3	Beijing Global Design Institute
4	Shanghai Medical Design Institute
5	Tian Jing Chemical Industry Design Institute

Interviewee Information

Formal and detailed telephone interviews were conducted with 18 professionals over a period of five weeks from February 12 to March 19, 2005. The interviewees included six project managers, three construction managers, one contract manager, three engineering managers, two procurement managers, as well as three professionals dealing with government relations. Since these professionals are not willing to disclose their names and project names in case studies, the names of projects and individuals adopted in the cases

studies are faked. Although their professional careers vary, they all have the following similarities:

- Willingness to provide feedback
- Hold managerial positions and have worked within a cross-cultural context for at least five years
- Fluent in both Chinese and English
- Sensitive and understand both the Chinese as well as the western culture

Prior to the first conversations, e-mail messages were sent to each participant for explaining the objectives of the interview. In the first week, the telephone conversation with each participant lasted for half an hour. The main purpose of this interview was to further clarify the research objective and to exchange ideas on cultural issues as well as project management. After a thorough review of the notes, ten people were chosen for the second interviews.

Over the next two weeks, the telephone conversation with each of the ten interviewees was one to two hours in duration. They were invited to speak about events and situations that they had experienced while working with the projects. After the end of the second round interviews, the 12 cases were recorded and compiled within the following two weeks. To confirm on the facts and details acquired from the interviews, they were sent to the interviewees by e-mails. Then, each interviewee reviewed and made appropriate changes. In order to further avoid misunderstanding, a third telephone interview was conducted with each participant in the last week. The third interview lasted for approximately half an hour.

1.5 A Guide to the Paper

The paper is composed of seven parts. At the beginning of the first part, the paper provides a brief introduction of the Chinese construction industry, followed by the paper's purpose and structure. Next, the methodologies used for this research are described. The part then concludes with the background information of the interviewees, projects as well as cases.

Part Two introduces two Chinese philosophies: Confucianism and Maoist Communism. These two theories are regarded as the foundation that influences the minds as well as behaviors of a modern Chinese. Part Two then outlines the many and diversified definitions as well as theories of culture. Finally, this part concludes with a literature review of academic researches on culture and project management.

Part Three identifies the several Chinese cultural variables that influence international project performance. An analysis for all cases provided in Part Seven is incorporated into this part. Three basic Chinese concepts related to law, the face and interpersonal relationships are pointed out as the main factors impacting on the project performance. Also discussed are the obedience and flexibility of the Chinese, which prove to be a timesaving asset for the project team. Next, organizational cultures of the Chinese design institutes and construction companies couple with the discussion of the aforementioned three Chinese cultural variables. This research concludes that the primary barrier of communication between the Chinese parties and foreign entities is no longer the language, but rather the cultural conflicts and organizational incompatibility. Cultural issues are certainly multifaceted. On the one hand, intangible cultural issues do result in cost and schedule dilemmas. On the other hand, however, it is oftentimes the strong cultural dedication that brings effectiveness and timesaving measures to a project.

Part Four provides a conclusion drawn from the research work in this paper. In a nutshell, the Chinese culture has both positive and negative impacts on the performance of projects. It concludes that “Guanxi” and the Chinese concept of face, as well as the Chinese model of law are instrumental in doing projects in China. Also, the obedience and flexibility of Chinese professionals is a precious asset to project management. Effective communications as well as successful cooperation between foreign entities and the local enterprises are dependent on mutual accommodation. Certainly, foreign companies must understand and adapt to them in the long run.

In Part Five, several recommendations are made. First, a mutual learning process needs to be introduced into project management in order to create harmony within the project environment. Second, the selection and sustainability of the local project team is important to the project's success. Third, vigilance should be kept over governmental issues and

uncertainties emanating from the flexible as well as incomplete legal system. Also, contingency plans should be made to tackle governmental fees and unexpected events.

In the sixth part, the limitations of this paper are described. The most evident problem is the references used for this paper as the majority of research activities were done by scholars in Singapore and Hong Kong, whose culture has long been influenced by western thoughts. The short period of time and relatively little resources allowed for this paper may also produce an incomplete picture of the performance of international projects. Additionally, since the interviewees are from foreign engineering firms, then a bias may exist with regard to local construction companies. Finally, the culture of local authorities is not emphasized. Since local governments have a very strong influence on project outcomes, the investigation of official culture is strongly recommended for future research.

The last part, and by far the largest part consisting of 12 case studies, brings up the subtle influence of Chinese culture on project performance in various aspects. These cases are grouped and numbered in accordance with Part Three. Case 3.1-1 and Case 3.1-2 are primarily used to support Chapter 3.1, "Guanxi", although the two cases may also be employed to buttress other perspectives in other paragraphs. Each case is presented in the same way: it is illustrated, and then explained. In any case, although many other factors can be hold responsible for the outcome of a project, this paper only emphasizes on the failure or success of a project as an effect of culture.

2.0 Chinese Culture and Project Management

2.1 What Is Culture?

Definition of Culture

The term 'culture' has been defined widely in anthropology and ethnography science. Its meaning is arguable and diversified depending on the speaker's theoretical perspectives. American anthropologists, Kroeber and Kluckhohn (1952), presented 160 different definitions of culture. A widely accepted definition of culture is a society with shared values, understandings, assumptions and goals, passed on from generations to generations, resulting in common attitudes, codes of conduct as well as expectations that guide behavior (Kroeber and Kluckhohn, 1952). Chinese culture, as discussed in this paper, is grounded on an understanding emanating from social institutions with regards to governments, legal systems, interpersonal relationships and the Chinese concept of face.

Cultural Dimensions

In the management literature, Hofstede (1991) says a culture can be measured in five dimensions:

- I. Large Power Distance vs. Small Power Distance
- II. High Uncertainty Avoidance vs. Low Uncertainty Avoidance
- III. Individualism vs. Collectivism
- IV. Masculinity vs. Femininity
- V. Confucian Dynamics

The five dimensions show some significant and meaningful correlations with geographic, economic, demographic and political national indicators. The Chinese are characterized as collectivistic and large in power distance, whereas people in most western countries are characterized as individualistic and small in power distance (Hofstede, 1982). The Chinese prefers to give more emphasis to in-group harmony, and draws a more definite line between in-groups as well as out-groups than do Europeans and North Americans. Chinese are less confrontational in handling disagreements and are less likely to challenge their superiors in comparison with their Western counterparts (Leung, 1997).

Table 4 Major Dimensional Differences between Chinese and Western Cultures

Chinese culture	Western culture (UK & USA)
Collectivism	Individualism
Large power distance	Small power distance
Strong uncertainty avoidance	Weak uncertainty avoidance
Long-term orientation	Short-term orientation
Outer-directed	Inner-directed
Relationship	Contractual
Conservatism, tension between hierarchy and harmony	Autonomy, tension between mastery and egalitarian commitment/harmony

Source: P.Chen and D. Parlington, International Journal of Project management 22 (2004) 397-406

Three Levels of Culture

The literature also suggests that a culture can be explored as different layers because everyone belongs to a number of different groups that correspond to different levels of a culture. Thus, the concept of culture has been developed at both the national and organizational level (Loosemore, 1999) as well as the project level. National culture gives people their basic assumptions and values - their perceptions of the world (Hoecklin 1995). The organizational culture is the culture exhibited merely within an organization. Baird et al. (1990) defined organizational culture as the values and beliefs that members of an organization hold in common as they relate to each other as well as their jobs. In contrary to national culture, corporate culture is not a matter of shared values (Hofstede, 1991). The latter is rooted in the values of the founders and significant leaders, but their values have been converted into the practices and the rules of the game.

Pheng argued that national culture was more deeply entrenched in the individual than organizational culture; therefore, it is more difficult to change the former than the latter (Pheng, 1999). The comparison between Chinese culture and the culture of Chinese organizations is a good example. The formation of the Chinese culture can be traced back five thousand years ago and people take it for granted; on the other hand, the culture of existing enterprises has only a short history of approximately five decades.

With a growing awareness of cultural influence on construction projects, researchers extend the concept of culture to project specificity. An international project is usually

implemented by numerous independent business enterprises and stakeholders from various cultural backgrounds. The group of stakeholders form a temporary project setting called a “projectified society” (Lundin and Soderholm 1998) and it is culturally layered as well as diversified. Newcombe (1997) defined a project’s culture as “the shared values, beliefs and assumptions of the stakeholders involved in a project”. Turner and Müller (2003) view a project as a temporary organization through which the client assembles resources to achieve their objectives. Contracts are the method by which the owner creates the project organization, and should aim to align the contractors’ objectives with the owner’s, by providing appropriate incentives. Project culture exhibits a complexity of various cultural characteristics brought from various countries and organizations. Compared with national and organizational culture, project culture is unstable, dynamic, changeable and largely dependent on the location of the projects as well as the stakeholders involved.

Culture, as discussed in this paper, is grounded on two understandings. First, a culture is based on an understanding that emanates from social institutions with regards to the government, legal systems, interpersonal relationships and other Chinese societal concepts. Second, the complexity of Chinese culture intrinsically uncovers itself in the project society at different cultural levels. This paper discusses the cultural issues in project performance at large, and no single line is drawn between the layered cultures.

2.2 Chinese Culture

China is the world's longest persisting civilization with the longest traditional history of record-keeping and collection. The Chinese people are proud of their culture, and a strong sense of cultural superiority is ingrained in their mind. The Chinese have always held their culture in high esteem, seeing their culture and nation as the center of human civilization. This perhaps is the reason China is named the Middle Kingdom.

Most scholars contend that two philosophical traditions - Confucianism and Taoism - have molded Chinese culture. They are generally regarded as the two complementary streams of Chinese thought, crafting the two sides of the Chinese characteristics just like Yin and Yang. As Lin Yutang (1937) says, the Chinese “are born half Taoists and half Confucian.”

Besides these two schools, the culture has also been deeply shaped by the Maoist Communism since 1949 in Mainland China. Note that since Taoism is not evidently found to be an influence on project performance, it will not be further discussed in later chapters.

Confucianism

Confucius (551–479 BC) was a philosopher and the founder of the Ru School of Chinese thought. He held a position rather similar to Socrates in ancient Greece. His teachings, the *Analects*, form the platform for much of the subsequent Chinese theory on education, relationships, moral development and social stability. Over the long history of the Chinese civilization, it is undeniable that Confucian ideology has been firmly established and governs every aspect of Chinese life. Bond and Hofstede (1991) concluded that the influence of Confucianism has prevailed not only in China but also the rest of Asia, including Japan, Korea and Vietnam.

Confucianism advocates non-specific individuals in society. Interpersonal relationships are based on five types of relationships: 1) ruler and the ruled, 2) father and son, 3) brothers, 4) husband and wife, as well as 5) friends (*Lunyu*, 2.19). The relationship stresses family-orientation and respect for seniors as well as superiors. Children and juniors are educated to obey both parents and seniors. Furthermore, parents and seniors have a tendency to control and interfere in the lives of children, even in their adulthood. This pattern of dependence and obedience pervades through all human connections. Additionally, the Confucian notion of relationships are highly reciprocal, situational, dynamic, contact related and family-centered. The Confucian mentality of relying on discrete interpersonal relationships - and not on formal prescribed systems - to make accomplishments embraces flexibility. Generally speaking, Chinese do believe it is possible to solve everything.

The Confucian value of moral cultivation emphasizes five basic virtues: benevolence, righteousness, propriety, wisdom and trustworthiness (Watt, 1999). According to Confucius, a perfect individual shall own these five virtues in society. Confucius also pursues high self-restraint. In a family, an example is set for other family members to follow. In his political ideology, the country and its people are ruled by a sage-like king

✓ following his exemplary moral. Both classical and contemporary literatures portray true heroes as morally impeccable. The pursue for an impeccable heroic model help develop the Chinese concept of face. An individual, a community and a country gain face by becoming an exemplary model. The loss of face brings shame and humiliation to not only an individual, but also a family, a community or even a country.

✓ Since Confucius believed that a family and society maintains harmony through moral virtues rather than the laws and rules, he in point of fact rebuts any rationality in legalism. His principles have resulted in more than 2,000 years of a faithful society unbound by a legal framework, but also a lack of the legal concept in the people's minds. Even in the modern Chinese society, people have a penchant for solving disputes based on relationships rather than law.

Maoist Communism

Besides the two traditional philosophies, Maoist Communism has prevailed in Mainland China since 1949. Although Maoist Communism is seemingly a brand-new ideology partly borrowed from Karl Marx, it has no doubt maintained Confucius traditions. Confucius contends the insignificance of an individual within the community, while Communists describe the relationship between people and the Communist Party as that between fish and water. The Analects says, "Care for others' benefit more than that of the self," while a Communist promotes "Give up all personal considerations if there is any conflict with the benefit of the Communist Party." Confucius thinks of "self-restraint" as a basic virtue, which can also fit appropriately into a Communist moral standard that emphasizes "Criticism and self-criticism." The ideology of Confucianism is the pursuit of the ideal of a sage-king ruling the country and its people. The Communist Party has created a series of "Great Helmsmen" including Mao Zedong and Deng Xiaoping. In the past, power concentrated in the hands of emperors, but now it is being held by a few hands of the Communist Party. Therefore, the brand of Communism dominating China can be thought, to a certain degree, as an extension of Confucian philosophy in many aspects. It has in fact strengthened the ideas of Confucianism.

Mao Zedong stressed the inheritance of the distillate of Confucian teachings in his earlier works (Gong, 1989). Contradictorily, he initiated the Culture Revolution from 1966 to 1976 in an attempt to wipe out Confucianism and other old traditions. However, his earlier emphasis on Confucianism and his later attempt of eradication have demonstrated that Confucianism has an unshakable foundation rooted in Mainland China even after 1949. Of course, the two philosophies are different in many aspects. One of the most noticeable differences between the two ideologies is that Maoist Communism preached violence while Confucius contends benevolence.

Unfortunately, the established socialist political system clashing together with the old philosophy has brought out negative effects. Interpersonal relationships have become more complicated, which gave a way for official corruption and group-bribery. While people do not have much confidence in the current legal system, the officers manipulate the laws to their own advantage. The functions of exemplars are extremely exaggerated. In fact, it has gone so far that fake exemplars, such as Leifeng, were created in favor of political needs. One of the worst consequences resulting from the dictatorship of the Chinese Communist Party is the trust crisis caused by the numerous political movements through all these years. This discussion will continue in chapter 2.4.

In brief, Confucianism and Taoism have been, and still are, two of the major forces that influence the development of Chinese culture. The Maoist Communism has influenced the Chinese negatively in many traditional concepts for several generations, and will exert an even greater impact on the youth in the near future.

2.3 A Brief Review of Culture and Project Management

Research on Culture and Project Management

The project management theory has developed a general system of management over the past four decades. The evolvement of project management breaks down into two phases: 1960-1985 and 1985-2000 (Kerzner, 2001). Project management, once recognized as only a bonus, becomes a necessity for companies' survival. In the construction industry, project management is recognized as a real necessity due to the comparative short duration of each project and its temporary organizational structure.

In the long list of factors affecting project performance, the culture issue is seemingly seated at the rear and it is not viewed as a fundamental force. In Weber's pyramid of project management, he built the foundation with engineering, procurement and construction, and then placed in environmental, financing and economic impacts starting at the apex. The cultural issue has the smallest space but it is placed on the last step of the pyramid (Kerzner, 2001). It is reasonable to place cultural issues at the top layer at that time as they have come to the forefront in the last two decades with business globalization. However, the cultural issues are not a single, isolated, and independent element influencing project performance. It constantly interacts with each element in the entire structure of the pyramid.

Since the publication of Hofstede's *Cultures Consequence*, a broad research had been conducted on the interaction between culture and business. Much of the research focused on the influence of cultural diversity on business negotiation and international trade. This type of research does not have much impact on the construction industry because it remains relatively domestic in nature in comparison with other industries. The telecom industry, for instance, entails the successful management of a multi-cultural workforce in a global context. Loosemore (1999) indicated that research related to culture and the construction industry conducted across national boundaries is comparatively rare. As pointed out by Phua and Rowlinson (2004), there has been no empirical attempt to use the culture concept to measure what effects culture may have on the success of construction projects, even though the culture concept entered the field of construction project management more than a decade ago.

In the late 1990s, specific research concentrating on how culture issues influence construction management gradually increased. Liu and Fellows (1996) explored the impact of culture on construction project goals, including its implications for procurement and organization. They revealed the procurement process, beliefs and behaviors of the people involved in construction. Rowlinson and Root (1997) found that the conditions of contracts have a limited impact on project performance. Instead, project prehistory and previous working relationships have the most significant impact on project culture. Rwelamila et al. (1999) reasoned that the failure to consider cultural issues had caused poor construction project performance in most African countries. As Low and Shi (2001)

strongly pointed out, the lack of sufficient respect for cultural differences may equal the failure to build advantageous sustainable sources in the competitive field.

Interestingly, Tukianinen puts forward a two-circle principle as a result of the cultural cooperation in a project team in 2002. By introducing a power plant executed in Poland, Tukianinen et al. (2002) studied the impact of culture dynamics between Finnish and Polish management on this global project. He suggested that two cultures encountering each other may result in two circles: a vicious circle and a virtuous circle. A vicious circle means antagonism and criticism accumulate, which raise barriers for further collaboration. The latter refers to increased curiosity, mutual learning and fruitful cooperation. He concluded that cultural conflicts between two countries would eventually accommodate mutually and result in adaptive behaviors to create a successful project, where a catalyst was needed. Chan and Tse (2003) held that culture, as one major issue influencing international projects, deserves more attention and research. Undeniably, cultural differences can be both constructive and destructive to contractual disputes of international projects depending on how they are manipulated by the people involved.

Chinese Culture and Project Management

In the past ten years, the number of publications on Chinese culture and project management has grown. Kwan and Ofori (2001, 29) discovered that the Chinese culture helped promote the partnering in the Singapore construction industry. Using four cultural indices that they developed, Hofstede (1980), Fisher, and Ranasinghe (2001) examined the entry mode of foreign companies into the construction industry in Singapore, which is deeply influenced by the Chinese culture. They concluded that an investor's cultural aversion to risk may be a highly influential factor in deciding whether or not to engage in a joint venture.

The abovementioned research activities on Chinese culture issues and project performance are conducted based on the construction industry of other Asian countries besides the PRC. As for the following researches, they are done in Mainland China. Chan (1997) discussed foreign-related construction disputes and found that they adopted amicable resolutions. Low (1998) suggested that international contractors operating in China should note the deeply rooted cultural practices and beliefs of their Chinese business associates. Wang

(2000) proposed a measure to tackle coordination issues between foreign designers and local design sectors to avoid miscommunication as well as misunderstanding. A comparison of Chinese cultural adaptation between the Western and Chinese expatriate managers can be found in Selmer's (2002) paper. He concluded that the Chinese expatriates in the PRC did not adjust as well like the western counterparts, although the Chinese have an advantage of being familiar with the Chinese culture. Chen and Partington (2003) highlighted that both western and Chinese cultures place importance on relationships, but the fundamental differences existed between the two parties in the perceived concept of relationships.

3.0 Impact of Chinese Culture on Project Performance

3.1 "Guanxi"

"Guanxi" is like a magic wand in the Chinese culture. It is highly unlikely that a Chinese person do not know anything about "Guanxi" if he or she lives within the Chinese society. "Guanxi" has a significant influence on people's daily life in many respects. Without "Guanxi", it is very hard to make achievements even though it is not everything (Yeung and Tung 1996).

Concept of "Guanxi"

"Guanxi", a Chinese societal norm, is used to describe interpersonal relationships. It refers to the establishment of a connection between two independent individuals to enable a bilateral flow of personal transactions. Both parties must exploit benefits from the transaction to ensure the continuation of such a relationship and it must be nourished as well as maintained over time (Watt 1999). According to Confucius, "Guanxi" is built on five basic virtues - benevolence, righteousness, propriety, wisdom and trustworthiness (Lunyu 2.19).

It has long been recognized in China that an individual does not exist independently but is rather an element existing in a system of interdependent relationships. Confucianism conceives the self as neither an isolated atom nor a single separated individual, but rather as a being in relationships (Tu, 1984). Hsu has further argued that no equivalent for the

Western concept of “personality” has been found in the Chinese tradition. He thinks that “Ren”, a Chinese word that means people, includes a person’s intimate societal and cultural environment that makes his existence meaningful (Hofstede 2002).

Establishment of “Guanxi”

People think of building and maintaining “Guanxi” as a must to maintain societal harmony as well as a basis for lasting co-operation for mutual benefits. They are intrinsically integrated into powerful and cohesive in-groups. “Guanxi” evolves from an ego to family ties as well as kinship, and extends to hometown-fellows, schoolfellows, colleagues, and finally, business partners (refer to Figure 2). Family members are generally regarded as a core. However, the rule of the Chinese Communist Party over the past fifty-five years has broken the traditionally unshakable family tie. The three circles do not have clear borders as they did before, and business partners as well as colleagues may step into the first circle in the “Guanxi” network.

In Case 3.1-2, Jianming, a native manager, had carefully spun a “Guanxi” net in his office. His team members were more exactly like friends than subordinates. Just as well, Bell Gu, a local project manager, from Case 3.1-1 was clear that he had to develop a sort of interpersonal relationship with Huang, the design manger, before tackling the problem existing between two contracting parties. In addition, Case 3.3-1 also gives proof of the importance of the relationship. When the jobsite of Fesso was closed by the local authority, Tom, the project coordinator, took instant action to repair the relationship between Fesso and the local authority. Liu concluded that the complex of “Guanxi” had formed such a thick and dense web that principles, policies and the like are deactivated when they hit the web (Liu, 1985).

Note that “Guanxi” is highly reciprocal. When one party has offered assistance, the receiving party is placed in an implied debt and is ready to repay at the right moment. “Guanxi” can also be accumulated and used in a continuous exchange for benefits. It is dynamically stable. Business partners can get out of the third circle and step into the second or even the first circle (refer to Figure 1). “Guanxi” is inevitably connected to the social position. The higher one’s position in the hierarchy of society, the more contacts he gets.

Figure 1- “Guanxi” Network

Interpersonal “Guanxi” over Business “Guanxi”

Deemed priceless, the web of “Guanxi” is carefully spun and maintained by each individual. In the workplace, the Chinese prefers establishing interpersonal relationships more than business relationships. Chen and Partington (2004) found that Chinese project managers devote themselves to building personal relationships within the project team more than do their Western counterparts. This finding can be proved in Case 3.1-2. The simple answer “they are my friends” means that Jianming has established good interpersonal relationships with his subordinates. In the office, their relationship is as the superior and subordinates; out of the office, they share privacy with each other. They are bounded by affection and loyalty. Group unity, sharing as well as commitments are encouraged. As employees, the two engineers fulfill only do their minimum daily tasks. As friends, however, they are willing to sacrifice some individual benefit to achieve their friendly commitment regardless of hardships. As described, this relationship is reciprocal; Jianming in return would provide a reasonable protection for them when required.

Western professionals are task-oriented. They barely correlate personal relationships with their business. The relationship between partners or colleagues is on a contractual basis. If the relationship develops a more intimate platform, then it would be as a result during or after the business relationship, and not before (Kikoski 1995). Case 3.1-1 gives an

explanation. Kyle, a professional from a German engineering firm, made an attentive effort to push Mr. Huang, a design manager of a local design institute, to provide the drawings required by the contract. These drawings should have been submitted to Kyle two weeks earlier. After protracted communications, they did not reach an agreement. Kyle followed the work procedure and used the contractual power, but he failed to remedy the problem. This example points that a contract is not meaningless, but that it alone is not always effective. Sometimes, a deadlock needs proper application of personal relationships rather than contractual powers.

Well established personal relationships have a positive impact on project management in many aspects. This is particularly evident in schedule control as in Case 3.2-2, where “Guanxi” demonstrated its intangible dynamic energy to shorten the time period required for finishing the layout drawings; in turn, it helped achieve a project milestone. “Guanxi” bound each one of the in-group by not only contracts, but also loyalty and emotion. Jianming and his friends were well aware of this reality. When Jianming set the target schedule, he knew that his subordinates may not work day in and day out but his friends would. This is why the local manager in Case 3.4-1 could figure out the issue on the drawings format for his company through his personal connections, even when the formal channel was blocked. His action greatly speeded up the project progress.

However, involving too much private “Guanxi” in project management can also affect a project negatively. Such evidence can often be seen in the contracting process. Realizing the importance of “Guanxi”, Chinese contractors have to spend much time and money to build relationships with those who may influence. If they are not ready to develop “Guanxi”, most of them then would not rush to bid for a project. This investigation finds that tenderers are not evasive in their relationships with owners. On the contrary, they prefer to hint at the relation because it may give them additional leverage in a competition. This scenario, however, is hard to see in the more mature litigious societies, where a private connection with the bid offering party may trigger litigation. A Canadian case, *Martselos Services Ltd. (MSL) versus Arctic College (AC)*, gives an explanation on this regard. The owner AC, awarding its bid to a lower bidder, was sued by bidder MSL because one of AC’s principles was related to the lower bidder. MSL claimed that the conflict of interests made the bidding unfair.

“Guanxi” also complicates the bidding process. It may allow corruption. At times, “Guanxi” may result in unfair competition among various tenderers. This possibility comes more often with public projects. Since “Guanxi” is instrumental in doing business, foreign companies have no other choice but to yield to it for doing good business in China. For instance, UBS Investment Bank retained Zhenzhi Li, son of the third hand in the Chinese center of government in the last term, to be the general manager in the Asian area. One of the most important reasons is Li’s wide connections with the Chinese central government (Echo Times, 2005).

Evolution of Trust Relationship

With the accumulation of interpersonal transactions, people then look for a relationship at a higher level — trust relationship. Confucius preaches confidence as the first priority in ruling a country. He thinks that the requisites of “government are sufficient food, sufficient military equipment, and the confidence of the people in their ruler. If two of the conditions have to be given up, confidence should remain” (Lunyu 2.19).

Chinese people have the propensity to place trust and credibility before the laws. In the business world, businesspeople are more dependent on trust relationships than on a written contract or legal documents. Fang indicated that the contract file would be locked into the drawer after signing for a joint venture because the Chinese party would do whatever is required by reality, and not by the contract (Fang 2000). Therefore, trust and credibility, are essential prerequisites for personal and business relationships.

There is also a preference that “outsiders” are to be trusted less than “insiders”. “Insiders” are always people’s first choice in doing business. “Insiders” and “outsiders” are used in relative terms. At its most primary level, next-of-kin and close relatives would be considered insiders, whereas village neighbors and friends are outsiders. At a higher level, people living in the country would be viewed as insiders and foreigners obviously as outsiders. The concept of insiders and outsiders coincides with the Confucianism that reveals the trust lying in the way of family orientation as well as interpersonal relationships.

The Chinese people have a long history of relationships with “outsiders” - foreigners and fellow countrymen included. Undeniably, most were bad experiences. Think back to the Opium War 150 years ago and the occupations of parts of the country by some western outside powers in the 1930s. It is little wonder why foreigners frequently complained about Chinese people being a suspicious lot in the 1980s when the country reopened its door to the outside. It usually takes a long time to convince a Chinese person that you are really telling the truth rather than trying to cheat him (Fang 2000).

Surprisingly, the Case 3.3-2 unfolds a fully different picture. In this particular project, three local contractors placed a high level of trust on an overseas company. When the client Delta, a Spanish owner, was unable to follow through with its financial obligations as required by the written contract, the contractors proceeded with the work on good faith and trust. The payments toward contractors were arranged after the deal was done. When one of the contractors was asked why he trusted an outside company, to the extent that he had to forfeit a part of his earnings plus a risk that Delta might renege on the contract, his answer was that Delta was an established western company. If Delta were a local Chinese company, then the contractor would not have done so regardless.

Why did this happen? Since the country opened its doors in the late Seventies, there has been a substantial volume of foreign investment in the country. In the last 25 years, foreign entities have proven themselves and earned the trust of the Chinese people, to the extent that where there is a choice, local Chinese companies will prefer to do business with a foreign entity over one of their own. In the case above, the Chinese valued the foreigners’ respect for the law, for their corporate integrity, for the transparency of management styles, and generally for their mature business culture. Following this case for this paper, a survey was conducted with the aforementioned interviewees. The results confirmed that foreign owners and engineering firms preferred to retain foreign suppliers or contractors if the budget allows, whereas local suppliers and contractors were willing to work with foreign entities.

The credit worthiness of Chinese enterprises, on the contrary, is difficult to ascertain and less transparent (Wang 2000). In this regard, the dictatorship of the Chinese Communist Party is to be blamed first and foremost. Think back to the political campaigns of the 1950s and 1970s, those movements encouraged neighbors to spy upon one another, and

children to report on their own parents. The trust amongst family members, friends and communities was shattered. These experiences have left indelible traumas in the Chinese mind, which contribute to making the Chinese today in the PRC less candid and honest than they would have been otherwise.

The construction industry is no exception. The unpleasant cooperation between GWS and Lergi in Case 3.2-3, GZhou and ChellCC in Case 3.2-4 has fostered such a doubt in the credit worthiness of Chinese enterprises. In the former case, GWS - a native steel panel supplier, entered into a contract with Lergi to supply two types of steel panels. In fact, GWS was aware that it may not supply one of the two products before the contract signed off. In order to gain the profit from the supply of the other product, GWS cheated Lergi before contracting and breached the contract afterward. In the latter case, GZhou breached a contract under which it was supposed to supply pressure vessels to ChellCC, because the contract amount of this equipment had been doubled in the market since the contract was signed off. These two Chinese entrepreneurs resulted in a huge loss suffered by the other contracting parties from the western countries.

3.2 Chinese concept of law

Confucianism, Legalists and Law

Confucius has the longest and firmest influence on the Chinese concept of law. He believed that a family, a society and a country should maintain harmony through moral virtues rather than by the law. He advised: "If the people are governed by laws and punishment is used to maintain order, then they will try to avoid the punishment but have no sense of shame. If they are governed by virtue and rules of propriety [ritual], then they will have a sense of shame and will become good as well." (Lunyu 2.3). In the long history of China, people had more hope for a Sage-king than a systematic legal system. The words of Sage-kings are the law and at times, beyond the law. Moreover, Confucius preaches the importance of interpersonal relationships and compromising above the laws of the land.

To further understand the concept of Chinese law, it is very important to know "fa", a legalistic concept developed by ShanYang, who was born around 300 years after

Confucius. “Fa” goes to the other end of the scale. Legalists hold that a ruler should keep the country in order by establishing strict laws. Endeavoring to promote their ideal, they triggered a movement that led to the “burning of Confucian books and the killing of Confucian followers” around 221 BC to 207 B.C. The legal system established by Shan Yang and his followers paved the way for the Qin Empire - the first unified China - to grow strong militarily and economically.

However, the legalist doctrines were short-lived because the absolute power and the stricture of laws brought on tyranny by the emperor, which adversely sped up the collapse of the country. In the end, the tender Confucianism triumphed over the harsh law of the legalists. Thus, legalism has never had a lasting influence in Chinese history. Although the reasons are arguable among scholars, the failure of the Qin Dynasty is certain and the Confucian aversion to law was triumphal.

The Chinese laws in later dynasties are constructed and beautifully written on paper. However, they have very little influence on society because rulers had no respect for them and people distrusted them. Law, in the minds of the Chinese, has been more or less connected with the lack of trust, trouble, coercion and tyranny.

In modern China, people still plea for a sage-like king to rule them. Recall that the words of Sage-kings are the law and at times above the law. The ardent devotion to Mao Zedong before 1980 and the worship to Deng Xiaoping after 1980 are recent examples. Although many hate Mao right now, he was revered as the “Sun of Heaven” in the past. During the Cultural Revolution, he even praised lawlessness as a measure good and positive for the society as well as humanity (Lam and Chen, 2004).

Flexibility of the PRC Legal System

The PRC legal system has made its name in flexibility and informality (Chan, 1997). In all fairness, the Chinese legal system has come a long way in the last 25 years. However, the dilemma is that there is a contradiction between the old communist jurisprudence serving the planned economic structure and the new legal system created to facilitate the so-called

socialist free market. The laws, regulations and rules concerning construction activities have been established, updated and implemented in the last twenty-five years. The frequent modifications and improvements indicate the legal system's lack of seriousness as well as formality. Some Chinese scholars argued that it was a must to make the law flexible enough to fit the changing environment and to deal with human behaviors (Chen, 1996).

Under the rule of the communist party, laws and regulations are intended to be instruments of policy enforcement (Lam and Chen, 2004). Policies from the all-powerful Communist Party are deemed to be over and above the law. This view is in accord with the voice of the Communist Party. Li indicated "the ways of the state must be guided by the policies of the Party as a basic condition in guaranteeing that the laws of our country are in keeping with the interests of the people and do not deviate from the socialist track" (Li, 1984). Local authorities have also acquiesced to play with the flexibility of national laws in consideration of unique local situations (Lam and Chen 2004). As long as it is necessary, local authorities may produce a policy as in Case 3.2-1. A newly announced dictate from the local authority held a project for two more months. The terms and conditions in the contract between Campbell China and the local authority provided the transfer of the right from Campbell China to Campbell Shanghai to use the land. This required only a process with the local authority, for the latter is a branch company of the former. However, the new dictate from the local authority demanded that Campbell Shanghai be registered as an independent economic entity in the economic zone prior to the transfer. This demand consumed two more months before Campbell could start its project. In more litigious societies, such scenarios would not occur because the contract was effective before the announcement of the new policy. A well-established legal system will guarantee the lawful right of the contracting party. In China, unfortunately, policies always override the laws (Chan 1997). In this regard, foreign participants can only surrender.

The more formidable problem is the discretionary power given to the policy makers and regulators in the implementation as well as interpretation of the laws. Such power has intrinsically provided more space for official corruption. Such a scenario unfolds in Case 3.2-2. ChellCC - a petrochemical giant of a joint venture, had ordered a special pressure vessel that could be supplied by no other manufacturer except for BSF Machines in Germany. Although it was the best machine in the world, ChellCC met difficulty in

applying it in its ethylene plant because no Chinese technical codes and regulations were applicable; moreover, no Chinese quality inspection center had the ability to inspect it. By law, the equipment can be accepted provided that it is scrutinized by the relevant department in line with the quality inspection report issued by any recognizable foreign quality inspection institute (Xiang 1997). However, this term is ambiguous. Who appoints the relevant department? What standards are used for scrutinizing? Taking advantage of the ambiguity, the officers accepted an offer to travel to Germany as provided by ChellCC.

Nonetheless, blame does not lay entirely with the flexibility of the law and the discretionary power of the officials. These factors may also have an impact on projects in a “positive” way. The abovementioned case at least suggests that the flexibility of the law could allow for a possible utilization of a new technology, which might be beyond the lawful requirement. Because of the flexibility and the discretionary power, a law can be interpreted and applied as necessary. To make use of this advantage, foreign developers are suggested that favorable terms should be negotiated and cleared with local governments prior to investment if such concerns are taken into consideration.

Fesso from Case 3.3-1 had an enlightened idea in this regard. Before the decision is made, Fesso had protracted negotiations with the local authority, Suzhou City. One of the prerequisites for Fesso’s investing into Suzhou Economic Development Zone was to allow Fesso to begin site preparation prior to the approval for construction permits. This preferential term helped Fesso shorten by two months in the time needed for processing of permits. By law, the construction should not commence until the construction permits are approved by the construction bureau.

Ignorance of Law

Many foreign managers with work experience in China have a common complaint that the written contract is not as enforceable as it is in their own country. Ignorance of the law is among the top in the long list of conundrums; however, it is not a hopeless situation.

It is innate for the Chinese people to disregard the law. Traditionally, Chinese people believe that a society should maintain its harmony by moral virtues and relationships other

than the law. Such teaching was preached by Confucius and has prevailed in China for over 2,500 years. In the last fifty-five years, Maoists attacked traditional moral virtues and subverted the fragile legal system established by the Chinese Communist Party. Having experienced various political movements, the Chinese people regard politics as more a fearful tactic than anything else. Fang indicated that the Chinese perception of the law was a political book (Fang 2000). Apart from political power, “Guanxi” is most important. This way of life is also recognized by many foreigners who have worked in China (Diamant et al. 2004). The existing construction laws and regulations were mostly stipulated in 1990s. However, the immaturity of the laws has weakened the effectiveness of contractual documents. The unreliable judicial system has fostered its ineffectiveness. Not surprisingly, China is described as an ambitious yet chaotic society, with plenty of rules, but none of which is enforced (Tim, 2000).

Unsurprisingly, the attitude of the Chinese people toward contracts stems from their own recognition of the law. Contract documents, reappearing in the 1980s in the industry, are regarded merely as beautifully worded documents written on paper. Thus, signed contracts could possibly be put aside, because the Chinese party would do whatever is required by the reality of the situation. This trend is further examined in Case 3.2-3 and Case 3.2-4.

To the German manager, Mr. White, the behavior presented by the local supplier GWS in Case 3.2-3 was completely beyond logic. He could not believe that GWS absurdly confess its inability to provide the steel flat sandwich board at the last minute. This product is one of the two products specified in the contract. The final confess in fact confirmed that GWS had supplied fake information about the flat boards before contracting in order to win the bid. As GWS failed to get hold of this product from the market after the contract was awarded, it hid this problem until the very end because it still desired to make a profit by supplying the other product- corrugated steel sheets. Lergi, the client, lost the chance to terminate the whole contract and find a replacement. In a more litigious society, this occurrence is unlikely since it brings forth for the company serious consequences, including a lawsuit and bankruptcy due to its fraudulence in the bidding process as well as contract violation. However, GWS did not seem to care or worry about a potential litigation. In fact, it believed that its behavior was acceptable in the local game rules. As a local supplier, it had established solid connections with local authorities. Even if Lergi did take legal action, then the worst possible consequence for GWS is perhaps only several

dinner invitations to Lergi and local governments or a small bag of money needed for bribing officers. Moreover, since this was only a small case, it would not reach the government at higher levels – not that it would help in any case.

If GWS failed to comply with the contract due to its notorious inability to fulfill contract requirements, then GZhou Machine – a local supplier as described in Case 3.2-4 broke the contract on purpose. As a large state-owned enterprise, GZhou Machine had the ability to produce the pressure vessels. Unfortunately, it could not have seen that the price of the vessels would increase dramatically after the contract was sealed and delivered. The explicit terms in the contract between GZhou Machine and the owner allowed only limited adjustments to the price hindered by the cost variation in raw materials. The amount regulated by the liquidated damage clause was only 10 percent of the total cost. Yet, any new order GZhou Machine then had would bring 100 percent profit. In this regard, GZhou Machine can not be blamed totally for its violation since it held the legal right to terminate the contract. However, there were many notable parallels in the actions of GZhou Machine and GWS. Both of them disclosed the facts at the last minute resulting in a huge loss to the other contracted party. This loss could have been avoided if the two companies had more respect for the contract and the other party. If the owner sued GZhou Machine and the case is presented in Canada, then the exemption clause would be ineffective in the event of such a fundamental and malicious breach of contract. Certainly then, GZhou Machine would face not only the amount specified in the terms but also a large sum of further damage rendered by its unreasonable performance of the contract. In the Chinese courts of law, there have never been such rules and precedents. GZhou Machine knew that the violation would do little harm to its profit, or its reputation.

In all fairness, the breach of contract does not happen very often among local contractors. However, one such contractor is enough to ruin the entire project. Therefore, foreign managers are advised to maintain vigilance over the Chinese contracting parties since they may not follow contracts like the law-abiding Western companies do. To achieve project objectives, foreign investors should carefully watch over the whole process of contracting and contractual implementation.

In the last five years, laws on tendering and contracting have been promulgated and enforced by the government. Bid bond and performance bond have entered the market to

further regulate construction activities. However, it will take time for the Chinese construction industry to get out of the predicament.

3.3 Concept of Face

The concept of “face” varies from country to country. According to Hofstede, face is more important in collectivist cultures than in individualist cultures due to the group dynamic. Hu (1944) defined the Chinese concept of “face” or “mianzi” as an embodiment beyond the individual. “Mianzi” includes a concern for the individual’s extended family, social circles and community at large, all embedded in the Confucian notion of shame and social harmony.

Face is an integral facet of the Chinese people. People have faces, and so do communities, groups and even the entire country as a whole. The Three Gorges Dam project, at an estimated cost of US\$25 billion, has been acknowledged as a “face project” which “will confer prestige on China and confirm its technological prowess and the superiority of socialism” (China Online, 2000). The National Grand Theatre, budgeted at US\$361 million, is another typical “face project” to “symbolize China's arrival as a modern, sophisticated nation” (CNN, 2000).

Face is given a rich meaning in literature. There are three common faces in the business realm: red face, white face, and thick face. Red face and white face are the commonly used strategies in business negotiation. The former suggests that an individual behaves tough on purpose, while the latter presents in a softer manner. Thick face is defined as a shield to protect a person from the negative opinions of others (Chu, 1992). A thick-faced practitioner endeavors to break rules commonly accepted by society in order to achieve his personal goal. Case 3.5-1 gives us an idea of thick face. In this case, an owner terminated the contract with a piping installation contractor because of its poor workmanship, but the contractor refused to retreat from the job site. Instead, it asked for an award of the full profit that it should have gained according to the original contract with the owner. Its deeds violated the custom of the trade as well as the widely accepted moral standards.

The Chinese concept of face has several distinctive dimensions. First, face is closely associated with one's social status and wealth. Individuals occupying higher social status generally have more face. Since face is a prestige accumulated through personal efforts, it can function as an invisible impetus of self-restriction as well as competition among individuals. Chen concluded that people were obligated by face rather than law and morality to maintain social harmony. Secondly, face is a reciprocal model because it can be either lost or gained. Losing face is comparable to a tree being peeled of its bark. In addition, face can also be exchanged and accumulated. With the growing of face transactions, the relationships between the two parties are strengthened.

Loss of Face

Loss of face occurs when an individual, either through personal action or the action by someone close to him, fails to meet the essential requirements of his social position. In the event of a conflict, gentle smoothing measures will be taken as an attempt to restore balance and preserve face. Loss of face is full of shame and humiliation. Ethan indicated that the Chinese would never get rich because they would lose money rather than face (Ethan 2004). Subsequently, social harmony is found in the maintenance of an individual's face.

Case 3.3-1 sheds some light on the degree of influence a loss of face can have on project performance. In this case, stripping an officer's face led to the shut down to the construction site. The issue started when a junior officer of the local construction bureau BPC asked the owner Fesso to make a minor modification in a construction drawing. Winston, an engineer from Fesso, ignored this comment because he thought it was unnecessary, considering both the original design and the required changes were in conformity with the relevant regulations. Unfortunately, the officer wanted to point out not the drawing's errors, but rather his power to influence the project. Winston was unaware of this nuance, and his blunt counterargument about the technical details stripped the officer's face. Furious at Winston's offence, the officer manipulated the situation in favor of his initial purpose to demonstrate his power. Certainly, the shut-down saved the officer's face. He ensured Winston and Fesso acknowledging the power of his construction bureau. Subsequently, Fesso made a huge effort to repair the damage done to the officer's face. When Fesso's efforts were deemed courteous enough to recover the face,

the BPC then softened its pose and allowed the construction in Fesso's jobsite of to recommence.

Face matters are never minor issues in China. It is important to carefully maintaining the face of the other party when dealing with individuals, companies, and government in particular. Officials are more sensitive with their face than are common people. Well protected by the China's power structure, they are accustomed to seeing themselves as more superior than others.

Face Exchange

Face can also be traded in a business relationship. "Face exchange" is often employed as an influencing strategy dealing with interpersonal relationships. In the Chinese business lingo, "selling face to the other party" means doing a favor to the other party. The "buying" party is expected to accept genuinely when an opportunity arises. Therefore, face exchange is not a one-trade deal, but a continuous exchange of favors between the two parties. Nonetheless, each exchange needs not always be equal.

Case 3.3-2 illustrates the Chinese notion of "face exchange". In this project, Delta, the owner, was unable to follow through with its financial obligations required by the written contract. In a litigious market, this usually constitutes a breach of contract where damages are calculated by the court of law. However, Lisa, a native professional on behalf of the owner initiated a renegotiation associated with a "face exchange". She convinced the contractors to proceed with the work and complete it on good faith. The payments were not arranged until the deal was done.

Of course, the three contractors understood that Delta respectfully awarded them face by granting them their contracts, notwithstanding the fact that they might be the lowest bidders. Note that Delta was at liberty to award the job to anyone. Thus, it was the contractors' goodwill to "return face" when Delta ran into difficulty, and can pay only once the job was fully completed. In any case, it is undeniable that this face return required a substantial amount of effort and sacrifice on the part of the contractors; yet it unfortunately also entails a deep moral connotation that requires the players to fulfill their obligations regardless of hardships (Fang 2000). Nonetheless, the subsequent hardship

brings reward. When the work is completed, they will ascend to a higher position in the face exchange relationship. The implied message to Delta is that they expect a long-term relationship and favorable recommendations for future works.

It is important to note that face exchange is carried out at a personal level more than a corporate level. The face exchange illustrated in Case 3.3-2 dealt more with the individuals representing the parties than the corporations themselves, and the relationship may end should any of the individuals leaves the scene. Thus even when there is a personnel replacement, the relationship is still discontinued and the face given earlier is lost. On the other and, note that the original two individuals are able to continue their face deal in another scene, even if one of them already represents another company. For this reason, Fang (2000) recommended keeping as much of the project team together as possible throughout the project, from inception to completion.

3.4 Flexibility and Obedience

Flexibility

Flexibility is an outstanding characteristic of the Chinese people. History has shown that the Chinese have never transfixed on one religion as most westerners have with Christianity. Hofstede observed that the Chinese could easily adopt elements from different religions (Hofstede, 1991). Some scholars even argue that there has never been a religion existing in China at all. Confucius and Maoist teachings are all philosophies rather than religions.

The Chinese saying “everything is possible, nothing is easy” brings about the essence of their flexibility. The flexibility of the Chinese also stems from the weak concept of the law and the recognition of the power emanating from dynamic interpersonal relationships. Reality makes people seek assistance via informal channels such as “Guanxi” rather than the law. At the same time, the complexity of a “Guanxi” network provides the possibility for flexibility.

Deng Xiaoping’s theory of “White Cat, Black Cat” can well explain the flexibility by saying “it does not matter whether a cat is black or white, as long as it catches mice.” This

theory has been broadly employed in the nationwide economic reconstruction since 1980 when dramatic paradoxes have been generated in the transition of China from the centrally planned economy to a free market with socialist traits.

Influenced by such Chinese traditions, philosophies and the reality, Chinese professionals in the engineering field are flexible and practical. Westerners, on the other hand, are stricter with the laws and procedures. Case 3.4-1 is of further illustration. Local design sector SChina deliberately delivered drawings with an improper format to MGC, which resulted in MGC's inability to continue the work. Since there was no definite term specifying the format of drawings in the contract, SChina was not in breach of contract. Nonetheless, considering that the 'dwg' format required by MGC was widely used in the engineering field, SChina should have issued instead 'dwg' drawings. Unaware the complex underlying the problem, a German manager Robin thought that this issue could be simply solved by a friendly coordination via formal channels such as a good conversation through telephone or meeting. However, it turned out that his one-month effort was fruitless.

Understanding the local cultures and customs of trade, local manager Bee thought of a simple approach to solve this problem by bypassing SChina. Ignoring the issue of property rights possibly triggered by SChina, Bee transferred the drawings from 'dwt' into 'dwg' with a friend's assistance. His company received the required drawings within two days. In Bee's perception, if SChina did not follow the game rules, then why should MGC? In any case, Mr. White would have never thought of such a method under the table, particularly since it is one that may trigger a legal issue.

When doing projects in China, managers have to tackle with various problems in flexible ways. This is demanded by reality. In this regard, the Chinese professionals have their inherent advantages. Having grown up in this society, the Chinese professionals are less bound by law. Unlike their foreign counterparts whose behaviors are strictly regulated by the laws, they oftentimes deal with the situation more pragmatically. It is no wonder that Tim recommend a Chinese solution to a Chinese problem (Tim, 2005).

Obedience

A Chinese person has the tendency to be governed and controlled. An inequality has been well instilled into the people's minds between children and parents, teachers and students, superiors and subordinates, rulers and the ruled. Everyone takes it for granted that juniors obey seniors, and subordinates follow superiors. Any counterargument is disrespectful. In school, children are educated to follow the way as instructed by the teachers. In workplaces, subordinates work under the strict rules enacted by leaders and government. Very few choose to confront the leadership even when they have a different opinion. In a nutshell, the family is parent-administered, the classroom is teacher-centered, the workplace is leader-controlled, and the country is central-government-ruled.

Obedience is viewed as a basic virtue in maintaining the harmony of Chinese society. Hofstede classified the Chinese into a circle of weak uncertainty avoidance, in which people are tolerant and less confrontational (Hofstede, 1991). He then further pointed out that the Chinese also emphasizes self-sacrifice and discourages independent behaviors (Hofstede1991). This principle is illustrated in Case 3.4-2. When all staff members were required to work overtime on weekends, the Chinese engineers worked as instructed without a complaint. It was a very basic situation being infused with obedience. In their opinion, individual interests should of course yield to the need of the work. It is no wonder that the Chinese viewed the behaviors of the UK engineers as simply selfish and confrontational.

Contrastingly, the British believed that the interests of individuals prevailed over those of the group (Hofstede1991). They did not think that the manager had any special privilege. It was their prerogative to go home for the weekend instead of working at the office after a week of work. The different perspectives toward leadership principles impeded the ongoing working relationships between the Chinese and the British teams on this project. Evidently, the Chinese engineers felt unfair; they did not enjoy seeing the British engineers behaving as if they have special privileges.

A further explanation is provided by the performance on two projects: "Yangzi-BASF ethylene plant" and "SECCO ethylene plant". These two plants were being built in the coastal cities of China. The ethylene plant of Yangzi-BASF and SECCO is designed to

produce 600,000 ton and 900,000 ton of ethylene respectively per year. Spending already forty-four months to date, BASF's plant is not even completed yet as of March 2005, at the time the survey has been done. SECCO, on the other hand, starting eight months later, is already put into operation in March 2005. The Yangzi-BASF project primarily differs from the SECCO project with its leadership. The former is run by a German project management team whereas the latter is under the control of the Chinese leadership, which is where top-down commands benefit from strict obedience. To speed up the project, the SECCO team members sacrificed most of their weekends and public holidays during the last three years.

The Chinese's obedience characteristic in most circumstances renders project performance positively, particularly when dealing with urgent tasks that need much hard work and personnel self-sacrifice. Miraculous time saving measures are oftentimes achieved much more easily by a project team with many Chinese staff, since they always work with given orders. Case 3.4-2 and the performance of the two ethylene projects provide some evidence for this regard. Their obedience benefits the project operation because it eliminates conflicts and arguments. With further appropriate rewards and encouragement, a dedicated Chinese project team may multiply the workforce by several folds.

3.5 Communication

Over the long history of Chinese civilization, the Confucian ideology has been firmly established as an undeniable system governing various aspects of Chinese lives. Their communication mode is developed to satisfy this ideology in order to preserve social harmony and avoid conflicts where disagreements may arise. Inarguably, the Westerners and Chinese are two extremes meeting each other. The former is about individualism and small power distance; the latter is marked by collectivism and large power distance (Hofstede, 2000). Unsurprisingly, culture clashes are easily observed in communications for each project. Acceptable communication methods in one culture may be considered as offensive by another; this may further result in misunderstandings and even confrontations. In international projects, communication has a very significant impact on project performance.

Avoid Direct No-answer

In their daily communication, the Chinese accept a “no” answer much more easily when it is delivered in an evasive way. In their culture, direct refusal is next to a confrontation. It may cause trouble and also cost the other party’s face. This has been observed in Case 3.3-1. Winston, from an American corporation, was requested to implement a modification to construction drawings by the Bureau of Planning and Construction, which has the power to involve in all project activities. It is also in charge of construction permits approval. As a fact, Winston simply said, “No” to a junior officer’s suggestion to modify the drawings. Winston’s direct “No” answer provoked the junior officer. In anger and humiliation, the officer manipulated the situation and shut down the jobsite with a haphazard reason.

Taciturn Is Gold

Few Chinese professionals realize that effective communication is a must within a project team. Yet meanwhile, a person with a reticent personality is regarded as a valuable asset. A Chinese saying “Taciturn is gold” rings a bell. A professional with strong technical background rather than one with good managerial skills, gains much more respect from colleagues. In fact, the latter is oftentimes despised and derided by others when he or she is promoted. “Immersing oneself in hard work without talking” is key among Chinese professionals. This situation makes the middle managers known more technically rather than managerially.

Language Barrier No Longer a Big Issue

The language barrier is often identified by many scholars as an outstanding problem causing ineffective communication between Chinese and the foreigners. Many scholars indicated that language constitutes a formidable barrier in Chinese-foreign business negotiation (Fang 2001). This may have been a factor in the last quarter of the twentieth century, but after twenty-five years of development, this scenario is changing. Although language still creates misunderstandings at times, different organizational models are the real problems in project communication. Case 3.5-2 provides the example. American engineering firm Albel Engineering appointed the Shanghai design institute DISH to provide the design service for a paint plant. However, being unfamiliar with DISH’s operation model, Albel faced a disastrous cooperation causing a four-month delay in

design and an eight-month delay in the whole project. Albel suffered not only a tremendous loss in profit but also an unrecoverable damage to its reputation in the Chinese construction market.

These conflicts arose from the incompatibility of two different organizational models in every aspect. First of all, the matrix organizational structure widely used by the western engineering firms was struck by the functional structure traditionally used by Chinese design institutes. Albel never thought that DISH would not establish a project team since this was fundamental for them to carry out a project. The team members of DISH were scattered on different office floors and assigned with more than two projects. Basic operation procedures between the two companies opposed each other. Progress reports, documentation processing and other commonly used communication approaches used in Albel were negated by DISH of its lack of related understanding and experience.

Conflicts, overlaps, omissions and mistakes frequently arose from their ineffective communications. Although the English language added some difficulty for DISH's to prepare technical specifications, DISH could have handled it properly. To find a fair way to smooth the conflicts arising from the two different operation systems, Albel provided more additional man-hours to help handle the project. Unfortunately, its efforts were still useless. As a result, the project lagged far behind schedule.

3.6 Chinese Incorporate Culture

Introduction

Unrecognized organizational model differences are a considerable part of the failure in Third World assistance projects, carried out by engineers from developed countries (Hofstede, 1991). All international projects discussed in this paper are complex with tens of enterprises coming from various countries and practitioners with multi-cultural backgrounds. In the multi-cultural context, mismanaging or ignoring organizational culture issues may render the managers and cooperation between the organizations ineffective.

As discussed in Chapter 1.1, there are several types of local players involved in industrial projects funded by foreign capitals: construction companies, material suppliers, state-owned design institutes, supervision companies and local authorities. Among these players, the design institutes have incomparable impacts on project performance, because they thoroughly engage in projects, linking foreign parties to local suppliers and reinterpreting conceptual design done by foreign parties into detailed design into a Chinese platform. Project quality, schedules and costs are all very dependent on design. Therefore, the discussion on organizational culture in this paper will first concentrate on the Chinese design institutes. Next to be discussed are the construction companies as they are the second important player that greatly affects projects during the construction stage. Since research conducted on supervision companies and local authorities is rare, they are excluded in this chapter.

Uniform Culture of Design Institutes

The majority of large design institutes have maintained state-owned even though private-owned design sectors were allowed in 1984. These state-owned design institutes have predominance over most industrial projects funded by foreign investments. With their preference for advanced technology, solid management systems and a considerable number of multi-disciplinary engineers as well as the accepted qualifications demanded by the Chinese government, foreign developers seems to have no other choice but work with them in most international industrial projects in China.

Thanks to the dictatorship of the Chinese communist party for 55 years, the Chinese design institutes established under a centrally planned system now share a unified culture to some degree. The organizational structure of each design institute is more or less similar. Many scholars have long argued that the traditional Chinese businesses were built based on family ties (Pheng & Leong, 2000). However, this is not true for the case of the SOEs in Mainland China. It is only true if the Chinese Communist party is viewed as an extended family. Top leadership positions in design institutes are appointed by the government and they are usually members of the Chinese Communist Party. Although the power still concentrates in a few hands, the design institutes propose a tendency toward decentralization.

The management of design institutes remains hierarchical and bureaucratic. Top management follows top-down administration and does not involve subordinates, including the middle level managers, during the decision-making process. Little or no feedback is expected from them demanded. Obedience of subordinates is a basic moral expectation. Subordinates are deemed to remain passive in compliance with the orders from superiors. They are evasive in a face to face discussion during a situation when it is likely to render a challenge for their supervisor. The management system is also relationship-oriented and group-oriented. Top leadership positions are closely associated with the superior bureau, and department heads maintain good relationships with the top leadership and carefully build friendship with the staff members. Partly due to the cultural guidance in “Guanxi” plus their limited power to determine salary and promotion, their effective leadership needs individual charisma and wide connections both internally as well as externally. In this relationship network, personal achievement is not encouraged, and there are also no specific duty for individuals. Foreign practitioners oftentimes feel their search is in vain, when seeking out a true person who is really in charge and willing to take responsibility.

When performing international projects, many conflicts arise from cultural divergence as well as the different organizational structures between the design institutes and western enterprises. One surprising aspect to the western professionals is the Chinese engineers’ lack of sensitivity for budget and financial matters. Very few of the Chinese engineers take marketing information and cost factors into their consideration in design. Certainly, the old organizational structure is responsible. Since the structure of all design institutes is organized functionally, the engineering department focuses on only the technical calculations and construction drawings. Therefore, the project cost is dealt with by the Budgeting Department, where staff members calculate the budget in accordance with national and provincial “Quota”, in which the price of all products is fixed with adjustable rates announced by the national or provincial authorities each year. Even though the development of a free market and the entrance of foreign engineering firms have brought some change to this structure, cost consideration in design is still relatively rare and easily neglected. As a result, current drawings and specifications supplied by the Chinese design institutes are usually insufficient to support procurement. The experience of the US engineering firm Albel as discussed in Case 3.5-1 gives an illustration. Albel failed the project partly because its procurement was too dependent on the design documents

produced by local design institute DISH. Apart from technical specifications, vender lists and materials price information are essential to the procurement process for a project. When Albel requested DISH to provide cost information about the main materials and equipment, he was astonished to find that DISH had never established a database for procurement support. Its failure to include market information into its design sometimes rendered the construction drawings unpractical; as well, it resulted in the frequent replacement of materials and unqualified suppliers on the jobsite. For the project, a delay was inevitable.

This phenomenon noted above is not uncommon but it also happens in many international projects at large. Case 3.2-3 is of further illustration. DIBJ - a local design institute, was appointed by Lergi - a German engineering firm, to design a four-story production building with external walls of flat steel sandwich boards. Paying little attention to the market, DIBJ designed a wall system that no supplier in the Chinese market was able to provide during the time of design. Yet, Lergi called for a request for proposal on the basis of DIBJ's design. Later, Lergi awarded the contract to a local supplier - GWS, who provided false information in the bid. As a matter of fact, GWS was incapable of supplying this product. In the end, it partially breached the contract and deliberately covered this fact until the very last minute when Lergi can by no means terminate its contract with GWS. DIBJ's impractical design together with GWS's dishonorable deed brought a huge loss to Lergi.

As for the design institutes in coastal cities with a higher chance to engage in foreign projects, they have improved their organizational structures and management systems. However, such changes as adding or removing a department are merely sufficient. In essence, the leaders' principle, the employees' attitude, the unwritten rules' influence and the managerial approach remain more or less the same.

Uncertain Culture of Construction Companies

Unlike the design institutes, the state-owned construction enterprises have experienced faster transformation. Several of the large corporations have disappeared. Reducing to small profiles, the survivors modified their organizational structures. The original strict bureaucratic system became loose and flexible. Branch companies are less bound with

their general companies both in administration as well as finance. Some private construction companies are allowed to attach to the state-owned construction enterprises on a one year contract basis or otherwise a project basis. The connections between them are “fee” charged, based on the qualifications of state-owned companies and personal relationships of their bosses. This phenomenon is called “Guakao”, a Chinese norm which means “attachment or dependence”. “Guakao” makes it difficult to identify a contractor as a state-owned company or a wholly private corporation. If the culture of state-owned design institutes is uniform, then state-owned construction enterprises have a complex organizational culture, which is a combination of bureaucracy and family-orientation. Since the bureaucratic system is less rigid, the leadership of management is more relationship-oriented than that of design institutes.

Private construction corporations are basically family-oriented. They do not consciously try to create a certain culture, or in other words, the style of the bosses represents the cultures of their companies. Personnel policies, reward systems and regulations are based on the founders of companies. The majority of small private construction enterprises do not have particular expertise as do those in USA or other advanced countries. On the contrary, they are immature in management, weak in technology and possibly unstable in finance. The creation of a corporate image is still not on their agenda. Care should be taken when contracting with a small company. In Case 3.5-2, Shane, a newcomer to the Chinese construction market, failed to realize the differences between the organizations in China and those in his own country. He parted a project into 15 contractual packages in order to save money and take advantage of the particular expertise of the small companies. In doing so, he faced a series of challenges. First of all, he found it difficult to screen qualified candidates. Secondly, coordination with the many contractors consumed both his company’s time and money. Finally, a piping installation company was unable to fulfill its contractual obligation due to its poor workmanship. In addition, after being dismissed from the contract, it refused to retreat from the site unless it was awarded with the profit as per its initial grant. This crisis triggered protracted negotiations and arguments. Needless to say, it caused serious time delays.

4.0 Conclusion

Employing the emic approach, the author of this paper discloses several characteristics of the Chinese culture and provides insights on how they are associated with project performance. By using a two-way communication method instead of the traditional questionnaires via post or e-mail, the author collected twelve first-hand cases and thoroughly explored how the Chinese culture affects project performance. The situations described in these cases are complex and the problems involved are mostly beyond the awareness of western professionals.

Even for the most experienced project managers, it may still spell disaster for them to manage projects without considering the culture of the host country, particularly if it is going through a political and economic reform like China. The above statement is one of this paper's prime conclusions based on a survey and a research into 11 projects funded by foreign capital.

The author also indicates that a culture can have a positive or negative impact on project performance, depending on the participant's extent of cultural understanding, familiarity as well as acceptance. As well, the Chinese culture is reluctant to change its model and perspective rooted thousands of years ago. Therefore, foreign participants are recommended to adapt to the culture with their greatest effort and at the same time, modify their cultures and modern project management models to work with those of China. It is only then, that a balanced and harmonious project environment is created, leading to a successful project. As a recap, the major findings are summarized in the following paragraphs:

"Guanxi" and Project Performance

The Chinese have the propensity to establish interpersonal relationships prior to having business relationships. Healthily established personal relationships have a positive impact on project management in many perspectives. It is especially advantageous for the schedule control process. Local managers sometimes use their "Guanxi" as an alternative to solve problems when formal channels may not work. Unavoidably however, private "Guanxi" affects projects also in negative ways. Troubles are particularly evident during

the contracting processes. Furthermore, “Guanxi” may cause unfair competition among tenderers. It may also introduce corruption into the situation. Since “Guanxi” is of big significance in doing business in China, foreign companies therefore have no other choice but to understand and work with it in order to achieve the project objective.

In the world of business, Chinese people have more faith on the ever-active trust relationships than the lifeless legal documents. Trust usually emanates from family members and then to outsiders. In the last 25 years, the real “outsiders” foreign entities have proven themselves and earned the trust of the Chinese people, to the extent that the local Chinese companies prefer to work with a foreign entity over one of their own.

Flexibility and Ignorance of Law in Project Performance

The legal system of China is recognized as both unstable and incomplete. The intangible flexible gaps found in the law system provide openings for official corruption. It is notoriously obvious that local authorities are allowed to manipulate the national laws for their own advantages. At the same time, such flexibility also tolerates foreigners to shift slightly from the rigid rules.

The poor implementation of the incomplete legal system, along with the local’s lack of respect for the law, makes the contracts less enforceable in China in comparison with those in more litigious countries. People prefer to seek assistance from “Guanxi” rather than the law when there are contract disputes. Breach of contract does not oftentimes occur, but it is seen occasionally in the Chinese contracting party when the signed and sealed contract presents unfavorable conditions. In the last five years, laws regulating construction activities have been enforced by the government. However, it will take time for the Chinese construction industry to formalize and function in order. Until then, foreign managers should maintain high vigilance during the implementation course of contracts.

Loss of Face, Face Exchange and Project Performance

The face is never a minor facet when doing projects in China. It is critical to please the face of the other party when dealing with individuals, companies, and government. Stripping the party’s face invites difficulty and dilemmas for mutual cooperation. In the

event of conflict, subdued measures should be taken as an attempt to restore balance and preserve the face.

Of course, face is collectable and exchangeable. It is certainly not a one-trade deal, but rather a continuous exchange of favors between the two parties. With the increasing count of face transactions, the two parties' relationship strengthens. Through a cunning exchange of faces, the contracting party can attain favorable contractual terms without regards for lawful requirements. In order, a face return is expected by the other party in the future.

Flexibility, Obedience and Project Performance

Influenced by the Chinese traditions, philosophies and reality, the Chinese professionals are flexible and practical. Westerners, on the other hand, are stricter with the laws and procedures. The Chinese professionals' flexibility allow them to solve problems more pragmatically, without being rigidly bound by contracts and project procedures. It is a fact that such flexibility is lifesaving when the other party does not follow the game rules.

Obedience is viewed as a basic virtue in the Chinese society. Obedience, in most circumstances, fosters great productiveness in a project. For example, the Chinese engineers are more willing to work overtime on weekends when asked to do so. In their opinion, individual interests should yield to the need of the work. Western engineers, on the other hand, have a stronger feeling for the individual privilege. They do not respect such commands particularly when they have other private desires. It is observed that similar projects administered under the Chinese leadership consume less time in comparison with those managed by the Western managers.

Communication and Project Performance

For a project operating over cross-cultural backgrounds in China, language is no longer the prime barrier leading to ineffective communications. In most circumstances, communication barriers are primarily caused by the rooted Chinese traditions and the differences between organization models. Today, one-way communication, flowing from the superior to the subordinates, still dominates the organizations in China. It has the formidable power to speed up a project because the subordinates are accustomed to complying with orders. Timesaving benefits are often seen in projects when they are so properly operated.

Other noteworthy points are that first, the Chinese say “no” in very evasive ways because a direct refusal is bad-mannered, and may cause trouble as well as the other party to lose face. Second, in general, few Chinese professionals realize that effective communications is a must within a project team. Lastly, a person with a reticent personality is regarded as a valuable asset.

Chinese Incorporate Cultures and Project Management

The culture of state-owned design institutes is sort of uniform. On the other hand, state-owned construction enterprises have a complex organizational culture, which is a combination of bureaucracy and family-orientation. State-owned design institutes still enjoy predominant advantages in doing industrial projects funded by foreign investments. Foreign engineering firms as well as developers do not have any choice and must work with them. Certainly, organizational model differences between the Chinese design institutes and the foreign engineering firms play a considerable part in the failure of international projects. For example thereof, drawings and specifications currently supplied by Chinese design institutes should be carefully used as procurement documents, because the Chinese engineers incorporate insufficient procurement information in their designs. In most circumstances, the western engineering firms need to provide further help.

However, note that state-owned design institutes and construction companies are still the best selections for industrial projects funded by foreign capital, because they own incomparable resources in finance, workforce and technology. Most private Chinese construction companies, on the other hand, are immature in management and weak in finance. .

5.0 Recommendation

An Independent Element — Chinese Culture Management

Chinese culture management is of paramount importance along with the cost, scheduling, and quality control in international projects performed in China. Due to the Chinese culture's long history and complexity within the political context, as well as social and economic reform, it exerts a significant impact on overall project management. Furthermore, the modern project management theory is based on the western culture and the practice of western professionals. Consequently, its application in China will face more challenges from the local culture than will other Asian countries, like Singapore, who were greatly influenced by western cultures.

Establish Mutual Learning Process

For successful results, a mutual learning process needs to be introduced into the project environment. The Chinese culture customs will hardly change since it has been rooted in the people's minds for thousands of years. However, it can be adapted and manipulated into positive means. As of now, the Chinese professionals are keen to acquire advanced technical and management skills but yet, they ignore the culture developing those skills. This dilemma should be tackled by training courses and seminars in order to strengthen the people's respect for the culture. In any case, the western professionals should avoid being arrogant and contemptuous. Understanding the Chinese culture and showing respect for the country do earn sincere support from the Chinese. Therefore, a western managerial system can be superimposed accordingly with cultural accommodation on project execution. This is the key to achieving trust, mutual tolerance as well as profitable cooperation.

Maintain a Steady Team

When doing projects in Mainland China, the selection as well as the upkeep of the local project team are significantly to the project's success. Local experts fluent in English, and well versed in both the foreign as well as the Chinese culture, are no doubt valuable assets. They maintain effective communication with foreigners, and at the same time deal with the local enterprises as well as governments due to their proficiency. They are also helpful in the process of selecting dependable suppliers and contractors. Since many of the deals

made between the companies are very dependent on the trust relationships between the individuals, it is therefore necessary to keep a consistent team for as long as possible.

Build Effective Project Communication Channels

It is clear that the greatest obstacle in project communication is no longer language but rather the incompatibility of organizational cultures. The difference in working attitudes, procedures and perceptions to management as well as other platforms is challenging both the Chinese professionals and their western counterparts, which unavoidably results in conflicts and project ineffectiveness. The project procedures and communication channels should be discussed as well as fixed by the contracting parties prior to binding a written contract. The differences in behaviors and perceptions are needless to change, however, they can be presented to and acknowledged by the participants. It is only then that an agreeable atmosphere can form, where communication is easier and more productive.

Keep Vigilance on Governmental Issues

Many uncertainties emanate from the immature legal system as well as the government's involvement in project performance. Such uncertainties should be considered when preparing the costs and schedules. Plans for contingency should be made for tackling with governmental fees and unexpected events. Certainly, an expert in dealing with government relations is required in a project team, to establish a good bond with the officers and be informed about the new rules as well as policies.

6.0 Limitation of Research

This paper is an exploration of a new territory where few research activities is found. Based on the author's collective experience in the Chinese construction industry, she relates the fundamental characteristics of the Chinese culture with the performance of industrial projects funded by foreign capital. Limited by the fund and communication channels available, this paper is not the complete exploration, but rather the beginning thereof. It inspires those of interest to examine the impact of a certain Chinese cultural attributes on project performance through speculation and empirical approaches. It offers a good beginning in the subject where more emphasis and research is urgently needed.

The first limitation is the references used for the paper. The author aims to conduct research within the context of Mainland China. However, the majority of the references supporting this paper are mostly associated with the Chinese from other Asian countries such as Singapore. Although the cultures in these countries are built on Confucianism and other ancient Chinese philosophies, the culture in Mainland China is fairly different from those in Asian countries. The PRC culture is shaped by Maoist Communism in the last fifty years; whereas non-PRC Chinese cultures are influenced by modern western nations in the last century. Selmer indicates that Chinese expatriate managers actually needed more adjustment to their works than their western counterparts, although the Chinese do have more advantages working in the PRC culture (Selmer 2002). Therefore, some perspectives adopted in this paper may need to be further studied and screened.

This paper narrows its research on international industrial projects funded by western investments with a cost of \$30 million USD or more. Smaller industrial, residential or commercial projects are not included in this discussion. Note that they may portray a different picture. For a specific instance, private designers and private construction companies are more engaged in these projects than are the state-owned enterprises.

Also note that the cultures of construction companies are less buttressed by the collected cases. The standpoint in relation to the construction companies represent only the author or some of her interviewees - none of whom ever worked for the construction companies. The events related to the construction companies are observed and portrayed by

individuals from the other contracting party such as the owner. Thus, the descriptions may be a biased. This imperfection is partly caused by the limited means of communication with those companies. In total, the author conducted three interviews with the bosses from the construction companies. However, these results were not too valuable because the interviewees could hardly correlate culture with project performance.

Notice that the culture of the authorities is only briefly mentioned in this paper. Since they are overwhelmingly involved in project administration, their culture and behavior has a significant impact on project performance. In any case, one of the interviewees currently working on government relations claims that the official culture in coastal cities is changing positively in recent years. Endeavoring to conduct a greater research, the author called some officers but was of course refused. It is needless to say that none of them wanted to speak about such issues.

In the future, the research investigation should extend to the Chinese official culture. Specific research should also be done toward the diversified construction companies. At the same time, keep an eye on the ever-changing culture in the design institutes, which are continuously influenced by the western cultures cooperating with them. As well, a horizontal comparison of cultures can be made among the three key players.

At last, the intrinsic value of the Chinese culture is far richer than this paper can discuss. Its significant influence on project performance will forever continue. Because of China's great population and long history, no one can change this culture in the short term, but must at least appreciate, adapt and perhaps even try to modify it little by little. It is evident that the western culture brought ashore by the international projects is having, and will have, a lasting as well as positive inspiration for the Chinese. Evidently, the westerners, in addition with the efforts of the Chinese professionals, impose a western managerial system on international projects with a cultural adaptation. In the meantime, the Chinese companies should take on global perspectives in their growth, and find ways of integrating some western models into the Chinese system to achieve a higher echelon of organizational performance. This is the unresisting trend.

7.0 Cases and Illustrations

Case 3.1-1

Western professional: "It is your obligation to follow through the contract"

Chinese professional: "I understand your dilemma; let's have a talk over dinner."

Devior Engineering (Devior) - a UK prime contractor, and DICHina - a local state-owned design institute, entered into a written contract for the design of a flare system for a petrochemical project in Shanghai, China in 2004. The contract provided that DICHina would complete the design of the flare system within four months.

At the end of the sixth week, DICHina did not issue out isometric drawings (pipe drawings of single lines) to Devior as required by the contract. Kyle, a leading engineer from Devior, was anxious for the delay because it would defer the progress of procurement and installation. He then sent a fax to Huang, a design manager from DICHina, to inquire about the work progress. Huang excused the tardiness for insufficient technical data needed for the drawings; the data should have been provided by Devior.

According to his experience, Kyle believed there was no real barrier in the way of proceeding with the design. In fact, the insufficient technical data was less than 10 percent of the required. DICHina should have submitted the drawings with open issues on hold. To solve this problem, Kyle set a meeting with Huang. In the meeting, Kyle urged Huang to issue out those drawings as soon as possible. Open issues were suggested to be put on hold. Kyle also reminded Huang of contractual obligations and the possible loss rendered by the delay. Huang delivered no direct answers and rather stressed excuses repeatedly.

Since then, Kyle tried several times to discuss with Huang and eventually with Huang's direct leader. The problem was not solved until two weeks later. Kyle turned to seek a help from Bell Gu, a local engineering manager working for Devior. Bell Gu had worked for DICHina for several years before he joined Devior. Bell then invited Huang for a dinner. Knowing the local custom, Bell expressed his willingness to be Huang's friend and

his call to get a favour not as a business partner but as a friend. Bell also showed his full understanding to the operation model of DICHina and the dilemma that Huang might have to cope with.

To Kyle's astonishment, DICHina supplied the required drawings five days after the dinner. In addition, those drawings were in conformity with Kyle's suggestions to Huang. Kyle wondered why a dinner had such a magical power.

Note: this case is narrated by Bell Gu and confirmed by Kyle.

- **Business Relationship and Interpersonal Relationship**

A friendly dinner does not have the magical power as Kyle wondered, but rather an effective means to build interpersonal relationships that can greatly benefit both parties. Western professionals barely correlate personal relationships with their business. In their custom, business is business, and it has nothing to do with private associations. This concept dictates their communication traditions in their practice. Kyle evidently adopted this tradition. He tried to solve the problem formally in an official way – the legal contract between the two parties – and it was ineffective.

The Chinese, on the other hand, have a penchant for establishing interpersonal relationships prior to having business relationships. This is a golden rule that should be considered particularly when one is dealing a business with state-owned enterprises (SOEs). Although they have made improvements in many aspects since 1980, the majority of SOEs still run in a bureaucratic way established under the planned economic system, where managers are indecisive both in finance and human resource management. Accordingly, a project manager is less blamed for a project's failure. Huang did not feel much pressure from contractual obligation and thus, this is one reason that explains the ineffectiveness of Kyle's approach. Understanding the game rule, Bell tactfully tackled this problem by taking advantage of the friendship rather than the contractual obligation. As well, while a business relationship is short-termed, an interpersonal relationship can last a longer time and be very valuable. Huang was definitely more willing to solve the problem via a friendship. Certainly, Huang would have done the same thing as did Bell.

Case 3.1-2

Western professional: "I need two months and four engineers ."

Chinese professional: "Give me four weeks and two engineers, I can make it done."

MGC - a British engineering company, had an EPC (Engineering, procurement and construction) lump sum contract for a pigment plant project in Shanghai with SHESC, a German chemical giant corporation. The design started on February 25, 2003 and finished on December 31, 2003. MGC established a design team which included two groups, one of which consisted of professionals from western countries, such as UK; the other consisted of Chinese professionals. Both groups were under the leadership of a local engineering manager, Jianming.

At the end of April, the whole team worked restlessly because the project was already delayed a month. According to the original schedule, MGC was required to issue two proposals of equipment layouts for the owner's review by May 31. With only a month left, Jianming realized that MGC might not achieve this milestone but was nonetheless giving it a try. He then asked Michael, a British professional employed as a scheduler by MGC, to prepare a proposal dealing with this issue. In Michael's proposal, four engineers and two months were needed. Jianming was not satisfied by this arrangement for he could neither arrange four engineers nor afford two months.

Michael was an experienced and a very confident scheduler. Therefore, when Jianming appeared to dislike Michael's proposal, Michael was offended. Michael insisted that it was impossible to keep the original target and he further explained his calculation for the man-hours and work load required.

Of course, even though Jianming disliked the proposal, he did not argue with Michael knowing that Michael was being realistic. Nonetheless, he had to reach the target and thus revised the proposal. His new proposal startled Michael because it required two local engineers working 12 hours a day, including weekends. In Michael's opinion, this was an absurd resolution, which also can provoke a labour issue.

Jianming proceeded with the new proposal and the result amazed Michael; the two engineers completed the job two days ahead of schedule. Michael wondered about what drove the engineers to work as Jianming had demanded. Then with a smile, Jianming simply replied: “they are my friends.”

Note: this case is narrated by Jianming.

- **Business Relationship and Interpersonal Relationship**

In the Chinese society, an individual does not exist independently but rather within a network of “‘Guanxi’”, or relationship. One shall carefully build, and then preserve, his position in this network. The Chinese regards building and maintaining relationships as a must to achieve societal harmony, which provides a basis for lasting co-operation of mutual benefits. Researchers Chen and Partington (2004) found that Chinese project managers, unlike their Western counterparts, devote themselves to building personal relationships within the project. Unlike the Chinese, westerners separate professional career from private life. In the case of the westerners, even when a social relationship develops intimately, it is either during or after the business, and not before (Kikoski 1995).

Jianming showed signs that he managed his team by establishing a friendship with his subordinates. In the office, their connection is the superior versus the junior. Yet, outside of the office, they are personal friends and as a friend, Jianming asked them to work hard for not only the company, but also their friendship. As Jianming’s friends, the two engineers worked overtime and fulfilled his wish.

This relationship is of course mutual. Both parties expect to be assisted in return. The underlying deal of the two engineers is that Jianming will assist them when necessary. Generally speaking, a well-established friendship is helpful to develop a positive business relationship. In an emergency, this friendship can save the business.

Case 3.2-1

Western professional: "15 days for permits is enough."

Chinese professional: "it is far from enough."

Campbell Shanghai - a French chemical group, was planning to set up a new chemical plant in Shanghai. The total time schedule was set to run from July 2003 to December 2004. Its general company, Campbell China, had purchased a piece of land in a so-called economical development zone of Shanghai. The project director, Adolf, was a professional with rich experience in the international engineering field.

Adolf made a master schedule for the project in June 2003. The first milestone of the schedule was the project authorization. Based on his experience from a few developing countries and eastern European countries, he marked 15 days for this target. A native project manager, Tracy, had a different opinion that suggested fitting six weeks of authorization into the master schedule. In her opinion, any uncertainty related to the governments should have a careful consideration. The confident Adolf, however, ignored Tracy's objection and submitted his plan to Campbell China, while, Tracy prepared a package and submitted it to local authorities for approval on July 1, 2003.

It soon proved that two weeks for project authorization was insufficient. There was a disappointing response from the government two weeks later,. Campbell Shanghai was informed that it was not entitled to establish a factory in this zone since the land was purchased by Campbell China; the land was not allowed to transfer between them. In order to use the land, Campbell Shanghai was required to register an independent entity by using its own title in the zone. The government also emphasized that this was a newly promulgated policy in order to prevent companies from buying and selling land to gain profit.

Adolf was furious because this policy was fully beyond his awareness. Furthermore, he knew that it would require several weeks more to register a company and repeat the process for project authorization. In any case, whether he knew the local policy or not, he

had no choice but to follow the procedure. It turned out that the project authorization of Campbell took two and half months in total.

Note: this case is narrated by Tracy and confirmed by Adolf.

- **Incomplete Legal System in China**

It is notorious that the PRC legal system is unsound and under development. This system is established, implemented and interpreted by Chinese governments. Officials at all levels oftentimes interpreted these laws and regulations in their own ways. More importantly, the local and central governments do hastily modify the laws when such changes are deemed to benefit certain situations. Thus with the Chinese governments intervening into each project from authorization to take-over, the change of policy no doubt greatly disturbs the project schedule.

This scenario provides a warning that issues in relation to Chinese governments can not be ignored. Adolf had learned a lesson from his first project in PRC. His ignorance of the local professional's objection and his lack of vigilance for the underdeveloped Chinese law system resulted in the delay of the project. Although the law system of PRC is faulty with its lack of both formality and reliability, one must cunningly adapt to it. Therefore, foreigners should be well-prepared for adapting to a new environment, where new rules and changes are oftentimes launched as the Chinese construction market continues to mature.

Case 3.2-2

Western professional: "This equipment is the best in the world, why don't the Chinese governments approve."

Chinese professional: "Send officers abroad, everything will be solved."

ChellCC - a joint-venture between UK and China, entered into a written equipment supply contract with BSF Machines - a German supplier. The equipment is a particular pressure

vessel and it is to be used for an ethylene plant in Guangdong, PRC. It is also a patent product, which can be supplied by nowhere but BSF Machines.

Following procedure of local governments, Sara, a native project coordinator, started to sort out the relative documents of this particular pressure vessel and submitted them to the related governmental departments for approval. One week later, she was informed that this vessel was not acceptable because this product had no quality acceptance certificate issued by Quality Inspection Bureau of PRC, as required by the laws of PRC.

During a whole month, Sara was busy with the local authorities. She indicated to the officers that BSF was one of the best pressure vessel producers with the most advanced technology in the world. The product had been, in fact, recognized by TUF, the most powerful quality inspection institute in the world. Besides, no other Chinese inspection centre is capable of inspecting this product due to technical difficulties. In order to work out a solution, Sara concentrated all of her energy on this case by inviting for dinners, presenting gifts and so on. By the end of the month, she found that all her efforts were useless. To her annoyance, she had no more ideas for tackling the situation.

To the officers, this was an issue dangling between the verge of the legal and illegal. There were no related codes and rules dealing with such type of product. Therefore, they can easily refuse the product as it was out of a lawful requirement. Yet they can also accept the product by finding out margins to support the acceptance. But why should they take risks not to follow normal procedures? In any case, ChellCC did not even have that flexibility. It had ordered this product at the very beginning of the project stage because this critical product takes a rather long time to produce and transport. Besides, BSF was the only supplier in the world.

Regardless, this dilemma was eventually solved. ChellCC provided invited the related officers to visit BSF Machines in Germany. Sara accompanied them as a guide and an interpreter. This move strengthened the relationship between ChellCC and the local bureau as well as Sara. Afterwards, Sara found her tasks with this bureau easier and quicker.

Note: this case is narrated by Sara.

- **Flexibility of Chinese Legal System**

One of the distinctive characters in the Chinese construction industry is over-involvement of local government. Unlike the governments of developed countries that have little influence on project operation, Chinese governments are dominant controllers. The approval of a project has to go through numerous bureaus depending on the scale of projects. Over-involvement of the government has become one of the critical factors resulting in project delays in PRC. In addition to the incomplete legal system, one of the worst consequences of governmental over-involvement is that it renders chances for official corruption.

The picture depicted in this case is not uncommon in PRC. The Chinese construction industry has, in the last two and a half decades, metamorphosed from a centrally planned system to a nearly free market system. The establishment of the Chinese legal system for governing construction activities is a relatively recent event. Due to the old legal system built for the planned economic industry, the new one is inevitably insufficient, inappropriate and contradictory.

The stress on quality assurance did not start until early 1990's. When imported equipment is involved with new technology, the Chinese quality inspection centre always finds itself in an awkward position. On the one hand, there are no codes and regulations regarding those new technologies; on the other hand, existing instruments are incapable for inspecting the new equipment. As a compromise, the law accepts the equipment if it is scrutinized and accepted by the related department, in terms of the quality inspection report issued by a foreign quality inspection institute (Xiang 1997). Then again, how well this rule work is rather suspicious. Who appoints the related department? What standards are used for scrutinizing? Such inexplicit descriptions yield too broad space for problems.

The flexibility of the Chinese legal system, however, has a positive impact on foreign owners using advanced technologies. To some extent, it allows foreign investors to shift slightly from the strict regulations. In turn, this flexibility may eventually elicit another new rule. In advanced countries, it is certainly less open to change or adjust any rule. To avoid such a dilemma as presented in this case, foreign developers are suggested that the

conditions shall be negotiated and cleared with local governments prior to investment, whether a new technology is adopted or a patent is required for the project.

Case 3.2-3

Western professional: "Hi, boy, the contract price is so cheap, a good deal."

Chinese professional: "Cheap price and bad service always come together."

Lergi - a German engineering company retained the firm DIBJ to design an ingredient plant. Under the contract, one of DIBJ's tasks was to provide architectural drawings for all buildings in the plant. The contract required two types of steel wall panels to be used for the buildings. Corrugated ones would be applied for external walls of utility buildings, and flat sandwich boards would be applied for external walls of production buildings; they were consisted of four floors reaching a height of 22 meters.

DIBJ handed over drawings and specification to Lergi on schedule. Based on the technical documents provided by DIBJ, a procurement manager from Lergi, engaged with Great Wall Steel (GWS) - a local private company, and entered into a steel panel service agreement with GWS at a cost of US \$400,000. Under the agreement, GWS was to supply workshop drawings within three months, from 15 June to 15 August 1997, and installation from October 1 to January 31, 1998. Mr. White, a German project manager on behalf of Lergi, was fairly happy with this deal for it was \$100,000 less than the budget.

At the end of July, unexpectedly, GWS informed Lergi that it was incapable of supplying flat sandwich panels. It simply asked a deduction of its work scope and an amount of money corresponding to that work. Obviously, GWS was in breach of the contract. Mr. White was furious at GWS. If GWS was unable to provide the service, then why did it sign off a written contract?

The first reaction of Mr. White was to send GWS to the court, but it was not the time for Mr. White to bother with it. Instead, he should find a replacement immediately in order to diminish the damage. He appointed a civil engineer in Lergi to conclude this issue with the procurement manager. Two weeks later, an investigation report was presented on the desk

of Mr. White. He was stunned by the outcome. In China, no supplier had ever provided flat sandwich panels for tall buildings except for a few villas.

The problem was finally solved; however, Lergi spent an extra US \$200,000 for this service. Yet, Lergi suffered a greater consequence. The installation of steel panels lagged six months behind schedule and resulted in a three-month delay in the whole project. It was only due to the complexity involved with the case that Lergi did not sue GWS.

Note: this case is narrated by Lisa.

- **Ignorance of Law**

The phenomenon baffled Mr. White. Why was the written contract unable to be as enforceable as that in his country? What made the GWS feel free to change contract terms? The answer lies in the Chinese theory of law and poor implementation of the existing legal system.

As discussed in Chapter 2.2, both Confucianism and Maoist Communism have great influence on the Chinese society. Confucius preaches importance of the interpersonal relationships above the law. His teaching has prevailed in China for over 2500 years. The concept of law has never rooted in the Chinese minds.

In modern China, dictates of Maoists in the late fifty years are deemed to be overriding the law by concentrating power on only a few powerful individuals. The Contractual document, a new concept in the recent 25 years, speaks more on paper than in reality. People distrust contracts and rulers overrun them. Breach of contract is not regarded as a formal misdeed. The implementation of the young legal system, though weak and poor, is to strengthen the rise of the power of written words. Nonetheless, using backstage connections to subvert the formal legal system still communicates power rather than shame for the individual.

This case reminds western expatriate managers that a written contract in the Chinese construction industry may not be as bonding as that in a more mature construction industry.

There is no guarantee that the service will be delivered as described in the contract under some circumstances. Since the end of 1990s, a series of laws on tendering and contracting are promulgated by the central government. Bid bond and performance bond have entered the market. However, there is still a long way for the Chinese construction industry to get out of the predicament. The following case mimicked this scenario in 2003.

Case 3.2-4

Western professional: "The vessel will be delivered on site based on the agreement."

Chinese professional: "Do not be so sure. The supplier may breach the contract."

ChellCC - a joint-venture between UK and China, entered into a written supply contract of a couple of vessels with GZhou Machine - a local state-owned enterprise, which engaged in the business of supplying pressure vessels for forty years. Those vessels would be used for an ethylene plant being built in GuangDong, PRC. The project commenced on January 2001 and will conclude at the end of 2005.

Pressure vessels are critical equipment in an ethylene plant. Understanding the importance, Jim, a procurement manager from UK, placed this order with a fair price in June 2002, which is much earlier than the schedule required by the project. According to the agreement, those vessels should be delivered to the site on August 2003.

Following the schedule, Jim reminded Tuo, a procurement engineer of ChellCC, to trace the progress of vessel production in January of 2003. Tuo contacted GZOU via both telephone and fax. GZhou responded positively that they would arrange the production on their schedule. Two months before delivery time, Tuo required a visit to GZhou in order to check progress and quality of those vessels. Unexpectedly, GZhou refused his request and expressed explicitly that GZhou would not permit his visit even if it will suffer a penalty as specified in the contract.

Jim was shocked. He could not believe that GZhou made such a disrespectful move to his petroleum giant company ChellCC. Prior to GZhou's response, Jim was proud of his well-timed purchase of those pressure vessels, for the price had already doubled within a year.

With the shortcoming of this new agreement with GZhou, ChellCC had to find a new supplier from South Korea. As a result, the equipment installation was delayed two months.

Note: this case is narrated by Tuo.

- **Ignorance of Law**

This case strikes a chord with the aforementioned situation. Although the two events happened in different time periods, Jim had the same bafflement as that of Mr. White. Why did the contract lack the lawful obligations? What convinced GZhou to terminate the contract regardless of its risk to lose reputation in the industry? The answer also lies in the Chinese's concept of law.

Deeply influenced by Confucianism, Chinese people believe that the society shall maintain its harmony by mortal virtues and relationships other than the law. When the Maoists attacked the traditional mortal virtues and the fragile legal system established by the Chinese Communist Party during series of political movements, the Confucianism mortal virtues grew less prominent. Today, political power is the most powerful, but only second to political power is societal connection or "Guanxi".

State-owned enterprises (SOEs), which run in such a realm, do not have much appreciation for the law. Although a series of laws are enforced to regulate construction activities, they are yet far from being fully effective. With the economy transforming from a centrally planned system to a nearly free market, SOEs are struggling to reshuffle their original structures in order to facilitate the changing market. They are desperate and hungry for gaining profits. Building a corporate culture or "brand reaction" is not among the top in the list of most SOEs' agendas. Very few corporations, even large ones, have lawyers. Fang – author of *Chinese Business Negotiating Styles*, indicated that Chinese party in joint-ventures dislike and regard lawyers as trouble-makers (Fang, 1998).

Certainly, foreign managers should be aware that the Chinese contracting party may not comply with legal contracts. To achieve project objectives, they should carefully monitor the course of contractual implementation.

Case 3.3-1

Western professional: "The government has promised that we are able to start construction while licensing, why was our site shut down?"

Chinese professional: "I'll say we have made them lose face."

Fesso Corporation is an American enterprise engaged in ceramic glaze coatings production. It had decided to set up a factory in China. The plant was to be located in a so-called economic development zone of Suzhou city in PRC.

Fesso's investment proposed several conditions with local authorities to the city. One condition was that the Merchant Bureau of the city should assist Fesso to process various construction permits and licenses, which were regarded as a tiresome and time-consuming process to all foreign entrepreneurs; as well, a delay in the process can render unforeseeable loss in the project. Another condition was that Fesso would be able to initiate site preparation and levelling work, even if its construction permits were still in process. These conditions can gain two precious months of time for Fesso because this means the completion of site preparation and levelling prior to the raining season. Since competition for attracting foreign investors was intense between cities and that Fesso's proposal was not atypical, the Merchant Bureau promised to cater for Fesso.

The project proceeded very well at first. With the design completed, Fesso employed a local construction company - CSuzhou - to perform the civil works of the project. CShzhou entered the job site in January 2001 and began the site preparation; in the meantime, they also dealt with the licensing with local authorities.

Generally, licensing involves four local government bureaus and one of which is the Bureau of Planning and Construction (BPC). This bureau plays the most important role on construction projects in the city. It not only deals with numerous permits and licenses, but

also has an influential power in the project's performance from start to finish. For the construction permits process, six branches of the bureau are involved. During the processing, Fesso faced some difficulties, but as the Merchant Bureau promised, it served as Fesso's coordinator to smooth the minor rifts and dents.

Very soon, Fesso got all the permits except for the one that should be issued by the BPC. One day, BPC informed Fesso that there was a minor mistake in the design that needed correction. Winston - the engineer from Fesso in charge of design coordination, came to see a junior officer of BPC as required. The officer pointed out that the distance between two girths, using strengthening external walls, should be 120 mm less. Winston was then much annoyed; to his knowledge, this modification was meaningless as the original, which cannot be called a mistake, conformed to the national and provincial design codes. Trusting his design experience, Winston retorted: "It's not a mistake, Sir. I didn't see any clue of necessity of making modification." After several minutes of an intense argument, the officer threw a warning: "Beware!"

One week later, a group of engineers from BPC gave a sudden inspection to Fesso's jobsite. BPC issued a shut-down notice to Fesso regarding its quality, which seemed absurd to Fesso. Fesso then appointed a government coordinator, Tom, to cope with this urgency. In the following two weeks, the coordinator tactfully dealt with the governments. The construction work was finally able to resume on the Monday of the third week. Here are four points for Tom's success:

- a. Stay away from the Merchant Bureau but focus on restoring the relationship with BPC
- b. Make a correction to the drawings as required
- c. Invite the officers for a dinner
- d. Schedule a meeting with the top management of BPC

Note: this case is narrated by Hudson, construction manager on behalf of Fesso.

- **Loss of Face**

Simply speaking, Tom's four strategies gave back BPC's "face" or pride for Fesso. Face is very significant to and very valued by the Chinese. Thus, it plays a critical role in deals and negotiations. To the Chinese, face is second to only their dignity. Stripping someone's face is equivalent to attacking their eyes, nose and mouth, as noted by researchers Hofstede and Bond (1988).

Superficially, it was a tangible quality problem that rendered the shut-down of the construction site. Yet underneath, it was because BPC wanted to avenge for its loss of face. By being over dependent on the Merchant Bureau, Fesso stripped BPC's face. Winston, unluckily, was treading on a sensitive ground. His retort to the officer was too blunt and reserved no face for the officer. Aggravated by Winston's offence, the officer deviously shut down Winston's site. The shut-down recovered the officer's face and boasted his power to mock Winston. All at once, BPC assured Fesso that BPC had the super power over Fesso's project.

By understanding the game rules, Tom deliberately estranged from the Merchant Bureau. He then invited the officers from BPC for dinners and developed close conversations with them in order to recreate a better relationship. To further soothe BPC's rage, Fesso modified the drawings according to BPC's remarks, which only made the design more conservative. Tom effectively recovered BPC's face for Fesso.

Your business partner's face, or pride as described, is one of the biggest matter to look after in doing business in China. Carefully grooming the face of the other party, whether they are individuals, companies or the governments, is very important. Officers in positions are more concerned with their 'face' than regular people. Well protected by China's power structure, they take it for granted that other people are their subordinates. In the case illustrated above, Fesso was actually lucky. For two weeks later, Fesso resumed construction and eventually received the permit, thanks to Tom.

Case 3.3-2

Western professional: "We have to defer the project because we have a cash flow problem."

Chinese professional: "Why don't we make contractors pay for us?"

Delta is a Spanish-owned language school that specialises in teaching English language in Shanghai. It signed a long-term lease with a local mall in Shanghai for around 2,000 square metres of floor space, to be designated as yet another English learning centre to the four it already had in Beijing and Shanghai.

It needed to renovate the space and the work was parcelled into three packages, which were awarded to three different local contractors. The first, by far the largest, was for the renovation work itself, the second was for the supply of furniture, and the third for supply and installation of information technology hardware. One week after the three contracts were signed, sealed and delivered, the Chief Executive Officer of Delta informed Lisa, a native construction department manager, that the project has to be deferred for at least six months. The school had encountered a cash flow problem without anticipation.

A suspension of the work would impact not only Delta's business negatively, but also all the other three contractors. The terms and conditions in all three contracts that Delta entered into provided for the contractors to file for loss of profits and damages for a major breach as such. Two of the contractors had placed firm orders for materials and special services required for the part of their works.

Delta was acutely aware of its predicaments. In addition to a possible litigation by all three contractors, it would also stand to lose the six months rental it would owe to the owner of the mall. At a rate of USD\$59,703 per month, that would be a loss of USD\$358,218. Based on income figures generated by its other learning centres, it would also stand to lose an additional USD\$1,800,000 in revenues, which was more than the total renovation cost of just a little over a million dollars.

Lisa was fairly certain that a postponement of six months would not sit well with the three contractors. Understanding traditional cultures and local conditions, she thought an approach appealing to the Chinese concept of face to initiate a renegotiation. Lisa had not only convinced contractors that a genuine mistake had been made, but also persuaded them to accept Delta's offer for those payments arranged toward contractors only after the deal was completed.

It had demonstrated that this approach was workable. Upon the completion of the project, Lisa asked one of the contractors why he placed such a high level of trust on an outside company, to the extent that he was prepared to forfeit a part of his earnings plus a risk that Delta might renege on its words. The answer was that Delta was an established western company. If Delta was a local Chinese company, it would not.

At last, the project was successfully completed on schedule. The "down payments" were arranged from the end of the first month calculated from the date of project completion.

Note: this case is narrated by the author, the construction department manager on behalf of Delta.

- Face Exchange

The Chinese concept of face plays a significant role in their culture. The last case here illustrated the shut-down of a project caused by a team member, inadvertently, mocking an authority. This case also lights up another facet: the face-face exchange. By using this strategy, Lisa successfully persuaded the contractors to accept Delta's payments arranged towards the contractors just after the deal was completed.

The Chinese business lingo, "selling face to the other party", means doing a favour for the other party. The "buying" party is expected to receive the favour when an opportunity arises. Thus, face exchange is a reciprocal deal. In Delta's case, face exchange lingered from the bidding process right to the end of the project.

The contractors, awarded with Delta's project, believed that they were also given the face by Delta, in spite of the fact that they might be the lowest bidders. Delta was at will to award the job to anyone in the circle. When Delta ran into an uncommon difficulty and can pay when only the job was completed, the contractors smoothly accepted the situation

as a way to “return face”. Although it is evident that this face return required a substantial amount of extra effort as well as sacrifice on the part of the contractors, but their loyal face return will be recognized. Once completed, the contractors would ascend to a higher position in the face exchange relationship. Then again in return, Delta would treasure a long-term relationship with these contractors and give favourable recommendations for future works.

It is important to note that face exchange is carried out at more a personal level than a corporate level. Chinese people generally prefer to deal with the individuals rather than with the firm’s representatives. The face exchange in the Case 3.3-2 had more to do with the individuals representing the parties than the corporations themselves, and it cannot continue between the two individuals if any of them is replaced by his or her successor. It is interesting to see that the original two may maintain transaction even if one of them leaves the scene.

- Trust and Credibility

Another interesting finding from the case is that the contractors placed high trust on Delta, a western company. It seems rather unusual because Chinese people have a propensity to place trust much less on “outsiders”.

Although the Chinese people have a long history with “outsiders”, foreigners and fellow countrymen included, but they were mostly bad experiences. Just think back to the Opium War 150 years ago and the occupations of the country’s land by some western outside powers in the 1930s. However, outsiders cannot entirely to be blamed. Go back more recently to the 1950s and 60s to the chaos and the miseries that the country had inflicted upon itself. The Cultural Revolution from 1966 to 1976 encouraged neighbours to spy upon one another, and children to report on their own parents. Trust amongst family members, friends and within communities were shattered. Incredible amounts of misinformation were told to the peasantry during the Great Leap Forward campaign. It is little wonder that foreigners, and Chinese themselves too, frequently complained about Chinese people being a suspicious lot. It usually takes much effort to convince a Chinese person that the truth is being told and there is no under plan (Fang 2000).

Chinese people also have a penchant for placing trust and credibility before a written contract or the law. Like face exchange and relationships, trust can be earned and accumulated to higher levels. Trust and credibility, are essential prerequisites for personal and business relationships.

How did all this played out in the Case 3.3-2? Upon completion of the project, the first author asked one of the contractors why he placed so much trust on an outside company, to the extent that he was prepared to forfeit a part of his earnings, in addition to knowing that Delta might renege on its words. The answer was that Delta was an established western company. If Delta was a local Chinese company, he would not.

Why would such be the case? Since the country opened its doors in the late Eighties, there has been a substantial volume of foreign investments in the country. The Chinese valued the foreigners' respect for the law, for their corporate integrity, for the transparency of its management styles, and generally for their mature business cultures. Moreover, Chinese companies' credit merits are difficult to ascertain and less transparent (Wang 2000).

In the last 25 years, foreign entities have proven themselves and earned the trust of the Chinese people, to the extent that Chinese companies prefer to do business with a foreign entity over a local one. A survey (Chu 1991) conducted more than a decade ago seemed to support this move in preference. Moreover, it was not for just the monies and know-how that foreigners were brought into the country.

Case 3.4-1

Chinese professional: "Why don't we just make a copy of the drawings?"

Western professional: "No. In doing so, we will fail to follow the project procedure and might face a legal issue."

ECCO - a joint-venture of petrochemical company, retained with two firms, MGC and SChina, to design an ethylene plant. MGC - a British engineering company, had a project management contract with ECCO; while SChina - a local design institute, engaged in

detailed design. Under the two contacts, SChina would provide a plot plan for ECCO to tie-in pipe racks into it.

SChina prepared a set of plot plans and forwarded them to MGC on the day required by schedule. However, MGC found that it was impossible to fit pipe racks into these plot plans because they were 'dwg' format drawings, which the engineers were unable to make a change. This meant that MGC needed to redraw the plot plan if it is to continue its work. This was an impossible task because MGC did not have enough information. Furthermore, the scope of work belonged to SChina.

Robin - a UK project manager from MGC, coordinated with SChina on this issue. According to the project procedure, Robin sent both an e-mail and a fax to SChina to request a plot plan with a dwg format, a commonly used format. SChina refused the request because it was not a part of the requirement specified in the contract. One month had passed already and there was still no progress. Meanwhile, Robin held several meetings with SChina and the whole project team of MGC had nothing to do but keep waiting.

In the meantime, Bee - a native engineering manager from MGC, volunteered to transfer dwf format into dwg format. Robin dismissed his thought because this action was likely to spark a legal issue as SChina owned the property right of these drawings. Again, Robin went back to the negotiation, meeting and discussion routine with SChina and further tried his effort with ECCO the owner. Yet, he wasted his effort and another month of time. Finally, he had no way out and returned to Bee for his suggestion.

Bee immediately took action. Assisted by one of his friends, he converted all relevant drawings from dwf format into dwg within two days. SChina intensely objected MGC's action at first but finally let go. In any case, MGC had a right to share project information.

Note: this case is narrated by Bee and confirmed by Robin.

- **Flexibility**

Unlike westerners who closely abide with the laws and procedures, Chinese professionals are more flexible and indulgent. When the problem arose, Robin's first thought was to solve it via formal channels. When his first effort turned out abortive, he still continued because he believed that this was the reasonable approach. However, he was not situated in a mature construction market. Unfortunately, the company he dealt with was a local design sector who always furtively omits contracts and chooses evasive ways to pass around the problem. The reason SChina showed such an unfriendly pose in its cooperation with MGC is still a puzzle. It was said that SChina was playing a game with ECCO for some inexplicit reasons.

To MGC, why SChina played a game was unimportant, and both Robin as well as Bee understood that. The urgent task for MGC was to convert plot plan drawings into dwg format. Understanding the local cultural rules of the game, Bee thought it is best to approach the problem without triggering law-related issues. He bypassed SChina, and sought a help from a friend who belonged to neither one of the contracting parties. This approach is deemed risky by the westerners but it did work well in China. Evidently, the Chinese are highly adaptable and are not fixed rigidly by the laws.

The aforementioned adaptability is an outstanding characteristic of most Chinese people. The Chinese proverb "everything is possible, nothings is easy", subtly brings about their adaptability to an extreme. As discussed in Chapter 3.4, such flexibility can be influenced by traditional cultures. The Chinese prefer to seek assistance from interpersonal relationship rather than the written law, due to their poor perception of the law as well as implementation of the existing legal system. Furthermore, the sophistication of the "Guanxi" network seemingly provides a sufficient foundation for flexibility. In addition, Author Hofstede classified the Chinese into the circle of weak uncertainty avoidance, in which people rather tolerate than confront (Hofstede 1991). It is important to note, however, that less confrontation does not mean people shy away from challenges and conflicts, but rather, they choose a roundabout way to reach the goal.

In brief, the Chinese professionals are usually more flexible and practical than their western counterparts in tackling with problems including those in the engineering realm. Demanded by their practical culture, flexibility is oftentimes a key quality required in project managers. In many circumstances, it has a positive impact on the project's success.

Case 3.4-2

Chinese professionals: "No problem. We can work them out during this weekend."

Western professionals: "Oh, no. We'll go for a trip."

ECCO - a joint-venture of petrochemical company, had a project management contract with MGC - a British engineering company, for an ethylene plant project in Shanghai. MGC established a project team which includes two groups, one of which consisted of UK professionals and the other of Chinese professionals. Both groups were under the joint leadership of a UK project manager and a local engineering manager.

As required by the contract, MGC should submit a HAZIP report for a natural gas scheme by July 30, 2004. The purpose of the report is to provide a comprehensive analysis of project feasibility incorporating issues of safety measures, operation comparability, evaluation of contractors and the like. However, this report had not been completed by the end of even August, due to a divergence in understanding that report. The client issued several notices to push MGC. In an attempt to submit the report in the following week, the engineer manager required the project team to work overtime at that weekend.

During that weekend, all of the local staff came and fulfilled their duties, but all of the UK engineers were absent. In the following week, the report was still dangling in MGC's office because the remaining part of the report assigned to the UK engineers, were not finished yet. Furthermore, UK engineers received neither blame nor complaint from the UK manager. They were not apologetic either. This incident struck the Chinese engineers and disturbed them. They became less interested in working overtime since then.

Note: this case is narrated by Bee.

- **Obedience**

In the Chinese traditions, obedience is viewed as a basic virtue. Children are educated to obey parents and teachers as well as seniors. In their adulthood, they are expected to follow the superiors in the workplace. In an organization, the management follows a

hierarchy and control-orientation, buttressed by a top-down allocation of authority. Very few subordinates would choose to confront the leaders even when they disagree with them. In Hofstede's theory, the Chinese is grouped into collective societies where independent behaviours are not encouraged, but self sacrifice is emphasized (Hofstede 1991). Thus, Chinese engineers in MGC did not make a scene over the leader's order to work overtime on the weekend. Without a doubt, individual interests should yield to the need of work. It is no wonder that they regarded the behaviours of the UK engineers as selfishness.

Classified as an individualism society, the British thinks that the interests of individuals prevail over those of a group. As we may see, they have a strong sense of individualism. They do not think that the manager has special privileges. In the scenario above, the Chinese were upset over the UK engineers' lack of shame for their selfish actions. To the UK engineers, however, it was just right and reasonable. In all fairness, they should be home for the weekend instead of working in the office after a whole week of labour. Nonetheless, this is not to say that they did anything wrong.

From this case, one can see the complexity of a culture. While one nation sees rationale, the other sees absurdity. To lead a cross-culture project team, one should not only understand the differences in customs and behaviours, but also establish an objective working environment via effective communication. Obedience is a key trait in the Chinese that oftentimes create miracles in project management. Further appropriate rewards and encouragement can inspire the Chinese project team to strive further regardless of hardship.

Case 3.5-1

Western professional: "this project shall be parceled into 15 packages of contracts with different contractors and suppliers."

Chinese professional: "Oh, boy. I can see a disaster coming down us."

APC - an Australian company was building its first paint plant in PRC. Shane, a project manager from Australia, was in charge of this project. Rou En, a native professional, was

appointed as a project assistant. The whole project including both design and construction was required to be completed within 18 months between 2000 and 2001 at a total cost of US \$30,000,000.

APC employed a local design institute to design the plant. When the design had been finished, Shane invited tendering for the project installation. He determined to parcel 15 packages for this project. These contractual packages are site levelling, piling, fencing, foundations, superstructure, pre-engineering buildings, steel panels, architecture, interior decoration, underground piping, electrical and instrumental installation, mechanical installation, HVAC system, fire-fighting system and landscaping. Based on Shane's experience, the contractual arrangements could be advantageous where much less overhead fees were needed and contractors would have special expertise in their expertises. However, Rou En held a different opinion. He suggested this project should only have two contractors; one for civil engineering installation and the other for MEI plus HVAC installation. Too many contractors to squeeze in one job-site would be a disaster to this project.

However, Shane adhered to his determination. He had, in fact, successfully performed several projects of similar sizes in both his home country and the USA. Thus, he continued the project in his way but then troubles soon began. Not to mention the timing consumed by the numerous tendering processes, his first tough challenge was getting qualified tenderers. There were few qualified bids received. It was after having finalized those fifteen contracts that he then understood many small companies in China did not have special expertise as he expected; instead, they were amateurs with lower qualification level and had limits both in finance as well as technology. The only rather relieving side was the dirt cheap prices of the contracts.

Soon the contractors entered the job-site along with the troubles and misfortunes. First of all, coordination works among contractors were demonstrated to be tiresome for APC engineers. The scope of work in some of the contracts was not clearly specified. Omissions, ambiguity and overlaps of the work scope provoked the contractors to fight and argue with each other for the sake of profit. Some materials specified by designers were unavailable in the market, while other components such as valves might be supplied by unqualified manufacturers. As well, material replacements were constantly required.

The administration of work permits was also in a terrible mess. Since the contractual packages did not fit well with the broke-down of work permits required by governments, the contractors dumped the responsibility from one to another. APC was forced to pay an extra fee for the work permit when there was an argument. The work schedule control and quality control were also poor. As for proper safety management, it was just an impossible mandate.

Yet, a worse consequence was the introduction of a piping installation contractor. This contractor was incapable of fulfilling the contractual obligation simply because of his poor workmanship. When APC terminated the contract, the contractor refused to retreat from the site unless APC pays him with the full payment as specified in the contract with APC. Of course, negotiations and legal action were not workable. After two months of struggling, APC compromised and paid for the “damages” claimed by the contractor.

Inevitably, the project failed. The 18-month schedule was extended to three years and the cost was said to be an increase of 60%.

Note: this case is narrated by Rou En.

- **Organizational Cultures**

Although much criticism has been made towards traditional cultures and management styles of State-owned Enterprises (SOEs), but they are still the best selections for industrial projects funded by foreign capitals. Established under the centrally planned economic model, SOEs have incomparable advantages in technology, human resources as well as finance.

Chinese private companies, on the other hand, are newly established in the last twenty years. Many of them do not have particular expertise as those in the USA or other advanced countries. On the contrary, they are weak in management and unstable in finance. A few of them are likely to be in financial crisis, and the piping installation company in this case is most likely one of them. If it was doing well, then it would not have dealt with APC in such an absurd way.

If we can think of the design institutes as having a uniform culture, then those private companies do not even have an established one. Or we can say the style of the boss is the company's culture; the rules of the ruler are the company's regulations. Ignorance of the law is not an uncommon phenomenon in SOEs; many private bosses are crafty at playing with the laws and governmental officers because of their companies' power in financial management. The context of the unsound legal system in the Chinese construction industry further feeds for this phenomenon.

Shane, a new comer to the Chinese construction market, failed to grasp the differences between organizations in China and his own country. Unfortunately, his good intentions were abortive. Surely, he will never forget how challenging it was to find qualified expertises and make them stay on task. This lesson had taught him that parting an industrial project into numerous packages can be a disaster in current China.

Case 3.5-2

Western engineering company: "We need weekly progress reports"

Chinese design institute: "Sorry. We have never heard of them."

Albel Engineering - an American engineering firm, retained DISH - a Shanghai design institute, to provide design service for a paint plant. Under the contract, Albel would provide a project team of about five engineers closely working with the project team of DISH. The total design period was six months going from March 2004 to September 2004.

The cooperation between the two companies was soon demonstrated to be a disaster as resulted in a four-month delay in design and eight-month in the whole project. Albel suffered not only a tremendous loss in profit but also an unrecoverable damage in its reputation in the Chinese construction market.

The conflicts at first arose from the incompatibility between the two different organization models. DISH had neither a specific space nor a project team dedicated for this project. Engineers of all disciplines were simultaneously assigned with more than two projects. To control project schedule, Albel required weekly/monthly progress reports, but DISH

refused to submit the reports because its lack of knowledge about it. Albel's procedure also needed three issues of drawings — issue for review, issue for bid and issue for construction. DISH insisted in issuing merely for construction, an old practice prevailing in its institute for over decades.

Along with the progress of the project, more surprises struck Albel engineers. DISH almost had no documentation control. The revised versions were poorly organized; the changes made rarely reflect the drawings properly. For instance, equipment and instruments along with pipe racks might be placed on the old architectural drawings, which had been already updated for several times. Communications among engineers were terribly managed. The engineers were allocated on six different floors in their office building. There were no regular meetings or e-mails to keep them informed about project progress and changes. The only communication channel was the verbal distribution of information from the project manager, to the leading engineers and finally to the engineers. As well, leader engineers of most disciplines were too amateur and unqualified to function as technical controllers. Omissions, conflicts, mistakes and insufficient technical data happened oftentimes. As a result, Albel had no way out but to provide more man-hours to help handle the project.

To proceed with procurement, Albel required DISH to provide vender lists and price information of equipment and construction materials; however, DISH had never established any database used for procurement support. In fact, most engineers did not have much understanding of pricing and marketing. The inability of DISH to convert market information to its design gave Albel a fatal hit in the later construction stage. Replacements of materials and unqualified suppliers were frequently needed. Consequently, the project lagged much behind schedule.

Note: this case is narrated by Baoming, an project manager from Albel.

- **Incompatible Organizational Structures**

Most industrial projects funded by foreign investments must include local design institutes working for them at the present, partly due to the design qualifications demanded by the Chinese governments. Most of the westerners who have worked with the Chinese design institutes are surprised by the lack of an insight for cost in the minds of most engineers.

Established under the socialist system, Chinese design institutes were used to receive projects allocated by the governments. All resources including the staff came from the allocation system, which was fully controlled by the governments on every level. Accordingly, few engineers can connect technical products with marketing and pricing, even though design institutes are trying to adapt themselves to the current free market. Therefore, drawings and specifications currently supplied by Chinese design institutes are usually not enough to support procurement. Western project managers shall be clearly aware of this fact.

In this case, Albel failed a project partly because its procurement depended too much on the drawings and specifications from a local design institute. DISH's inability to include market information in its design resulted in frequent replacements of materials and unqualified suppliers in the construction stage. Therefore, to accomplish a satisfying cooperation, the foreign company shall be ready for help at this point.

This case has demonstrated that ineffective communication between the Chinese and foreign party can be caused by differences in organizational cultures and not just language barriers. While western professionals view their daily work procedures as the typical model, the Chinese, on the other hand, refuse the reports and procedures considering them as troubles. Similar incompatibilities between two organizational structures or among staff members also cause countless arguments and diminished productiveness. In this example, this was the exact cause of the project's failure.

It is advised that foreign companies place particular attention when selecting a design institute. Prior to awarding a contract to a design institute, foreign managers are encouraged to interview the key members of the project team proposed in its bidding documents. Once it has been confirmed, the project team shall be specified in the contract and be maintained for the rest of the job.

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