THESIS

MANAGEMENT OF MULTI-CULTURAL TEAMS

ON INTERNATIONAL JOINT VENTURE

MEGAPROJECTS IN ASIA

by

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ABSTRACT

There have been many megaprojects done by project-based international joint ventures ("PBIJVs") in Asia with Western expatriate project managers leading the way. However, the management style expected at a local level in Asia on construction projects is unique, and for many observers appeared to be unstructured, un-systemized and autocratic. Moreover, the varying strains of Chinese-based ethics and beliefs, including networking, trust, *face* and avoidance of confrontation heavily influenced management practices.

This research investigated how a PBIJV should approach a complex construction megaproject in Asia and how experienced Western expatriate project managers actually managed and lead these projects to achieve overall project success. The aim of this research was to propose a framework for Western expatriate project managers to be used as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, in a holistic way with a clear focus on good e-teaming communication and flexibility of project manager thought so that the multi-cultural teams can work more effectively and efficiently, better enabling project success.

The thesis begins with an extensive review of published literature related to construction, Asia, culture, total quality management ("TQM"), IJVs, project management and megaprojects. A conceptual framework of work practices and styles required of Western expatriate project managers in the management of PBIJVs in construction on complex megaprojects in Asia, with East-West multi-cultural dispersed project teams, was established from this literature review. This conceptual framework was explored and developed based upon questionnaire responses and interviews with Western project managers with related and extensive work experience in Asia.

This research followed a qualitative strategy for the research design and methodology, and adopted a multiple-case study approach. This research followed a combination of questionnaires and an exploratory semi-structured face to face interview approach with manual data analysis. The first stage of the research process involved screening interviews of the short-listed project managers, which comprised of questionnaires and semi-structured interviews with an interview guide. The second stage studied three selected cases and comprised of the second stage interviews, direct observations and documentation as the main methods of data collection. The third stage involved the validation of the intermediate framework developed from the multiple-case study conducted during the second stage via a questionnaire with nine people comprising of the project managers of the selected case study projects, screening process project managers and other selected construction industry experts all with extensive working experience in Korea.

The findings of this research were presented in the form of a final framework to assist in improving project manager performance and skills on complex PBIJV construction megaprojects in Asia and it was concluded that such a framework would be of benefit to Western project managers as a guideline to manage construction megaprojects in Asia in a more effective and efficient way with the ultimate goal of achieving project success.

KEYWORDS: Construction, Asia, Korea, Total Quality Management, International Joint Ventures, Project Management, Megaprojects, Framework

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ABBREVIATIONS

APM	Association for Project Management
BS	British Standard
BSI	British Standards Institute
C1	Case Study One
C2	Case Study Two
C3	Case Study Three
CAD	Computer-aided design
CAQDAS	Computer-assisted qualitative data analysis software
CIIPM	Continuous improvement of international project management
CIOB	Chartered Institute of Building
CM	Computer-mediated
CSR	Case Study Respondent
DBMS	Database Management System
DJ	Distributive Justice
DTI	Department of Trade and Industry
EDI	Electronic Data Interchange
EDM	Electronic Data Management
EFQM	European Foundation for Quality Management
EQ	Emotional Intelligence Quotient
ERP	Enterprise Resource Planning
FDI	Foreign Direct Investment
FTF	Face-to-face
GLOBE	Global Leadership and Organizational Behaviour Effectiveness
HRM	Human resource management
IJV	International Joint Venture
IMF	International Monetary Fund
IQ	Intelligence Quotient
ISO	International Organization for Standardization
IT	Information Technology
JBIC	The Japan Bank for International Cooperation
JV	Joint Venture
KISS	Keep it short and simple
KM	Knowledge management
KPI	Key Performance Indicator
MNC	Multi-national Companies
MPA	Major Projects Association
NAI	National Advancement Index
NBI	Nation Brands Index
NUD*IST	Non-numerical Unstructured Data Indexing Searching and Theorizing
OC	Overseas Chinese
OECD	Organization for Economic Cooperation and Development
OSR	Other Selected Respondents
PBIJV	Project-Based International Joint Venture
PM	Project Manager
PMA	Project Manager A
PMB	Project Manager B

PMBOK	Project Management Body of Knowledge
PMC	Project Manager C
PMD	Project Manager D
PME	Project Manager E
PMF	Project Manager F
PMG	Project Manager G
PMH	Project Manager H
PMI	Project Management Institute
PMIS	Project Management Information System
PMJ	Project Manager J
PMK	Project Manager K
PML	Project Manager L
QA	Quality Assurance
QC	Quality Control
QM	Quality Management
RICS	Royal Institution of Chartered Surveyors
SHRM	Strategic human resource management
SPC	Statistical Process Control
SPR	Screening Process Respondent
SPSS	Statistical Package for the Social Sciences
TQM	Total Quality Management
WWW	World Wide Web

LIST OF TERMS AND DEFINITIONS

The following describe three words – *hard*, holistic and *soft*, which are used throughout the thesis in regard to management:

<u>What is *hard* management?</u>

The quote, "in God we trust, all others must use data" has been widely attributed to Deming, however, no data exists to prove such is factual (Hastie: 2009). Nonetheless, such a statement emphasizes the importance of management techniques, tools, and systems that compose the *hard* side of management (Psychogios and Priporas: 2007). Using the definition given by Goetsch and Davis (1994: 382), management tools are means of "collecting and displaying information in ways to help the human brain grasp thoughts and ideas that, when applied to physical processes, cause the processes to yield better results".

In terms of total quality management, an example of *hard* management practices identified in quality management literature (Psychogios and Priporas: 2007) include the following:

- statistical process control;
- ISO 9000 series;
- Pareto analysis;
- matrix diagram;
- histograms;
- tree decision diagram;
- critical path analysis; and
- fishbone or Ishikawa diagram.

<u>What is holistic?</u>

Holism is from a Greek word meaning *all*, entire, total. It is based on the idea that all the properties of a given system (physical, biological, chemical, social, economic, mental, linguistic, etc.) cannot be determined or explained by its component parts alone. Instead, the system as a whole determines in an important way how the parts behave (Wikipedia: 2011)

Holistic is defined as relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts. Examples include a) holistic medicine attempts to treat both the mind and the body, and b) holistic ecology views humans and the environment as a single system (Merriam-Webster: 2010).

Holistic project management in terms of training and implementation can view the project and the environment as interacting wholes. Linear approaches to management are not holistic. Cicmil *et al*

(2006: 678) argued that "problems with narrow, conventional approaches to studying the practice of management which focus on planning, organizing, coordinating and controlling, but which do not fully reflect organizational reality as messy, ambiguous, fragmented and political in character". Also, as argued by Winter *et al* (2006: 641), "to many project managers, some of the broader topics may seem esoteric – beyond their daily concerns – but collectively they represent real issues for the totality of people who together work for the effective development and delivery of projects, including project directors, programme and portfolio managers, development managers, system engineers and associated project team members, as well as project managers themselves".

What is *soft* management?

Soft skills is a sociological term relating to a person's Emotional Intelligence Quotient ("**EQ**"), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people. *Soft* skills complement *hard* skills, which are part of a person's Intelligence Quotient ("**IQ**") and the occupational requirements of a job and many other activities.

A person's *soft* skill EQ is an important part of their individual contribution to the success of an organization. Particularly those organizations dealing with customers on a face-to-face basis are generally more successful if they train their staff to use these skills. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant benefits for an organization. For this reason, *soft* skills are increasingly sought out by employers in addition to standard qualifications.

It has been suggested that in a number of professions *soft* skills may be more important over the long-term than occupational skills. The legal profession is one example where the ability to deal with people effectively and politely, more than their mere occupational skills, can determine the professional success of a lawyer (Wikipedia: 2010d).

In terms of total quality management, investigations into the *soft* side of management resulted in the identification of nine key principles most commonly found in quality management literature. The first of these principles is that TQM, in contrast to previous quality management initiatives, involves everyone in an organization. It is widely accepted that the increase of employees' participation in the overall quality strategy brings an increased flow of information and knowledge. As Morgan and Murgatroyd (1997) noted, the *total* element of TQM implies that every organizational member is involved in quality improvement processes. In addition, Oakland (1998: 20) argued that TQM is must be "truly organization-wide".

Soft TQM concepts identified in quality management literature (Psychogios and Priporas: 2007):

- total employee involvement;
- continuous improvement;
- continuous training;
- teamwork;
- empowerment;
- top-management commitment and support;
- democratic management style;
- customer/citizen satisfaction; and
- culture change.

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AUTHOR DECLARATIONS

1. The author, Eric Webb, is responsible for the research work submitted.

2. The author, Eric Webb, is responsible for original thesis work submitted.

3. Neither this thesis nor the original work contained herein has been submitted to Loughborough University or any other institution for another degree.

4. Access to this thesis is open – refer to the signed *Thesis Access Form* at the front of this thesis.

ACKNOWLEDGEMENTS

CHAPTER ONE – INTRODUCTION

1.1   INTRODUCTION

The purpose of this chapter is to provide an introduction to the research. Initially, the background to the research is described, followed by a justification for the research, aim and objectives, research process, structure of the thesis and a summary of the main findings of the research.

1.2   BACKGROUND TO RESEARCH

The construction and property industry is a worldwide enterprise, which embraces a wide range of project types and sizes, where most construction projects are managed, designed and built based on similar fundamentals. In general terms, most construction projects are developed by a client who engages an architectural practice to lead a team of engineering and specialist consultants to design the project and then, based upon the design, a general contractor builds the project together with specialist subcontractors for trades such as mechanical, electrical, vertical transportation and curtain wall resulting in numerous entities and participants involved in delivering the project (Druker and White: 1996). The involvement of so many, combined with the size of the construction industry has over the last 60 or so years driven the government in the UK to take a good look at construction industry practices (McCabe: 2006), which have led to influential reports providing recommendations to improve the construction industry such as selective bidding recommendations contained in the *Simon Report* of 1944, *Report of the Central Council for Works and Buildings*.

Other influential reports followed, such as the *Emerson Report* of 1962, *Survey of Problems before the Construction Industries*, and the *Banwell*

Report of 1964, *The Planning and Management of Contracts for Building and Civil Engineering Works*, which commented that in no other important industry is the responsibility for design so far removed from the responsibility for production, thus highlighting the immense amount of coordination and interface required to achieve the satisfactory completion of the end product. Some 30 years later, the *Latham Report* of 1994, *Constructing the Team*, took another long and hard look at the state of the UK construction industry and still found it seriously wanting and made recommendations to defragment the industry through project partnering and joint ventures ("**JVs**") between developers and contractors. The *Egan Report* of 1998, *Rethinking Construction,* followed and viewed the construction industry from the perspective of project customers and identified the five following key drivers of change:

- committed leadership;
- focus on the customer;
- integrated processes and teams;
- quality driven agenda; and
- commitment to people.

The *Strategic Forum for Construction* followed up *Rethinking Construction* with *Accelerating Change* in 2002 to identify ways to accelerate the rate of change to the key drivers of change recommended in *Rethinking Construction*. *Accelerating Change* was chaired by Egan who considered integrated team working as key to improve performance in the construction industry. From all of these reports it is clearly evident that the input of numerous different entities is required on construction projects, even more so on construction megaprojects. For the purposes of this research, large complex construction projects with costs in excess of one billion US dollars are considered as construction megaprojects (Flyvbjerg: 2008). Despite the availability of numerous project management standards and techniques (Morris *et al*: 2006) and professionally trained Western expatriate project

managers, the project management and coordination required on megaprojects is by no means a straightforward exercise in an industry that is so clearly fragmented with teams and individuals working in silos.

The problems encountered by management due to silo working are further compounded when either the client and/or contractor on a construction megaproject is a JV or consortia of companies. This is then even further compounded when such a megaproject is in a foreign international environment consisting of JV partners from different countries. Although the decision to form an international joint venture ("**IJV**") to do a megaproject is risky and prone to fail (Ozorhon *et al*: 2007), such IJVs are at times established, amongst other things, to spread risks and to both gain entry into and maintain corporate and project interests in foreign territories. However, many companies in the industry seem to initially enter into such IJV agreements without both a proper understanding of the foreign environment within which the project is located and the management abilities and communication skills required to achieve project success (Lu and Hébert: 2005). Such a lack of understanding is a recipe for disaster and should be avoided.

There are many megaprojects done by project-based international joint ventures ("**PBIJVs**") in Asia with Western expatriate project managers leading the way. However, the management style expected in Asia on construction projects is unique, and for many observers appears to be unstructured, un-systemized and autocratic. So, what dominates the direction of management practices in Asia? The influence of varying strains of Chinese based ethics and beliefs in certain businesses, including networking, trust, *face* and avoidance of confrontation in Asia cannot be easily discounted. For many businesses in Asia, the perceived need for good management may well lag behind good political contacts and good business contacts. The nexus between business and politics is fully understood and applied by the Chinese management style of these business societies. Indeed, business is

politics and the family control of business is a key ingredient for a successful business in Asia thus espousing the philosophy of turning the Chinese family into a business with an autocratic head of family directing the operations of his or her siblings (Drucker and Nakauchi: 1997 and Wang *et al*: 1998). The use of old oriental military concepts for management is also a longstanding way of working in Asia (Lo *et al*: 1998).

1.3   JUSTIFICATION FOR RESEARCH

1.3.1   Significance of the Problem

In the Foreword of *Rethinking Construction*, Egan argued that "a successful construction industry is essential to us all. We all benefit from high quality housing, hospitals or transport infrastructure that are constructed efficiently". Such a statement is just as relevant from a global perspective and it is important for project managers on construction megaprojects to enable their projects to be done efficiently and effectively.

Western expatriate project managers in the construction industry, with a multi-national team of people consisting of a majority of host country people, need to lead a project based upon more than just the traditionally recognized project management work scope. Nowadays, it is a given for project managers to be equipped with the fundamental technical project management *hard* skills (refer to definitions). As such, the importance of *soft* skills is becoming increasingly more apparent to achieve project success. Western managers need to cultivate *soft* skills and in an overseas environment also need to be culturally astute from the get-go, with a keen awareness of organizational politics and the ability to clearly communicate, listen and instil a feeling of trust and one-teaming in all communications.

However, books and academic journals related to project management practices in the construction industry are invariably written based upon Western practices, and all too often assume that best practice is the *Western*

Way. However, Western expatriate project managers on international construction projects outside of the West need to be fully aware of the environment within which they operate to best ensure the *Project Way* of working is efficient and effective. These expatriate project managers will not be able to achieve one-teaming principles on megaprojects in Asia without a proper awareness of the totality of the environment within which they work.

1.3.2 <u>Inadequacies of Existing Research</u>

The need for project managers on construction projects to successfully deliver the end product is a critical factor for success. The basic primary goals to achieve such success are for a project manager to ensure a specified project scope is achieved on time, within budget and to the quality specified. Published literature on such project deliverables is rich and diverse. In order to successfully achieve these project fundamentals related to time, budget and quality, project managers have the responsibility to lead the project team – people. Published literature on such human resource and cultural issues are also rich and diverse. Project managers need to have an understanding of the different cultures at play on IJVs. Published literature related to the expectations of Asian project personnel on IJVs was found to be wanting. Research into this area was considered necessary for Western management to understand what is required and what is most likely to work in the environment.

The researcher has been involved in project management activities on PBIJV construction megaprojects in Asia, particularly Thailand and South Korea since 1991. Although these countries are both in Asia, Thai and Korean ways differ. Indeed, according to *Global Leadership and Organizational Behavior Effectiveness* ("***GLOBE***"), which is a research program focusing on culture and leadership in 62 *GLOBE* nations throughout the world (House *et al*: 2002), Thailand and South Korea are in two separate Asian culture clusters of Southern Asia and Confucian Asia respectively, which in aggregate represent Asia as a whole and where China and Japan are housed in the

Confucian Asia cluster. There are a further eight culture clusters identified by *GLOBE* and England and America form part of the Anglo cluster.

South Korea and Thailand along with the rest of South-East Asia, experienced turbulent times from the property boom of the early nineties through to the property slump leading to and immediately after the 1997 Asian financial crisis, which was then followed by the re-emergence of high rates of growth at the start of the new millennium. The economic turmoil in the Asian region during the late nineties caused initial shock waves of such magnitude that most interested parties considered that many of the old Asian-style ways of conducting business would be banished to the history books. The construction industry in South Korea and even more so in Thailand was severely impacted by this regional financial crisis [named the 'Tam Yung' crisis in Thailand and interestingly the IMF ("**International Monetary Fund**") crisis in South Korea] that was triggered off in Thailand. Many of the impacted companies experienced, at best, debt restructuring to survive.

This period was considered by proponents of Western Ways of working as an opportune time to change local practices on the basis that new management paradigms had an opportunity to emerge during times of survival. However, despite corporate debt restructuring, new corporate governance and foreign investor involvement after the Asian financial crisis, old habits and 'old dogs' gradually resurfaced both in the political and business environments in Asia. Throughout this period the scale of infrastructure megaprojects continued in Asia, albeit with a dip in the late nineties. Invariably many such projects being done by PBIJVs in Asia have been and continue to be managed by Western project managers, at times seemingly without enough thought given to the varying cultures and languages of the personnel involved and the culture, customs and general environment of the country in which the projects are based.

There was no problem to find a sufficient amount of published literature of fundamental project management styles on JVs, however, published literature related to the expectations of Asian project personnel on PBIJVs was also found to be wanting. Research in this area was considered necessary for Western project management to understand what is required and what is most likely to work in the Asian construction environment on megaprojects done by PBIJVs.

Ozorhon *et al* (2007: 799) considered that "the majority of the current literature on IJVs concentrate on manufacturing industries. IJV theories have not been extensively investigated empirically in the construction industry", except for:

- a few studies associated with the risk of IJVs in construction [Bing and Tiong (1999), Bing *et al* (1999), McIntosh and McCabe (2003) and Shen *et al* (2001)];

- the factors affecting the performance of IJV [Gale and Luo (2004), Sherif (2003) and Sillars and Kangari (2004)]; and

- management issues in IJVs [Chan and Suen (2005), Luo (2001) and Luo *et al* (2001)].

Research about the project management of IJVs in the construction industry, within which there are various nationalities involved, is also limited. Hall and Jaggar (1998) argued that limited attention has been given by the construction management research fraternity about the necessity to take account of the different national cultures encountered when working internationally as this factor alone can affect the management of construction activities in many different and complex ways. Shore and Cross (2005) argued that the apparent lack of research in national culture's role in the project management process raises the following questions.

- Is the study of culture relevant to the project management process?

- Which cultural dimensions are likely to affect the management process?

- Which management issues are linked to the influence of culture?

- Does culture affect project outcomes?

- How can knowledge of these issues be helpful to project managers?

Multiculturalism is often contrasted with the concepts of assimilation and has been described as a "salad bowl" or "cultural mosaic" rather than a "melting pot" (Burgess and Burgess: 2005). Ochieng *et al* (2013) examined multiculturalism in the form of assimilation of the society (except for Europe) and argued that managing a global construction project team presents new challenges, as well as opportunities, in particular, issues associated with language, cultural knowledge and effective communication by all project participants. Ochieng *et al* (2013) also presented the view that cultural integration cannot be ignored on global construction projects and that there needs to be a focus on multicultural team working as such teams have become more commonplace in recent years. Ochieng *et al* (2013) considered that there is most certainly a need for increased research efforts in understanding influential factors that affect multicultural project teams, including communication techniques, smoothness of handover, teamwork, issue resolution, joint decision making, people selection and prioritisation, all of which need to be well thought out.

Some other areas about project management practice in need of research, as concluded at a Major Projects Association ("**MPA**") seminar (MPA: 2006c), include the following:

- delivering a project in a complex and rapidly changing environment;

- new models and frameworks to deal with process complexity;

- more learned guidance on managing multiple stakeholders in the modern world; and

- knowledge management and knowledge transference within and

between organisations.

The research scope was thus expanded to include certain Asian cultures, practices and customs with an emphasis on Thailand and South Korea, because of the researcher's work experiences, and also included the Overseas Chinese ("**OC**") due to their significant presence in Asian business and politics (Clad: 1989 and Haley *et al*: 1999). These national representations are considered to reflect Asia through the Southern Asia and Confucian Asia culture clusters. A full review of published literature related to such culture, practices and customs would take volumes of work and despite the holistic nature of the research this is considered neither practical nor beneficial, not to mention beyond the scope of this research. However, to obtain a better understanding of Asian project personnel expectations from management, research of Asian culture is considered justified and important.

1.3.3 Importance of Research

The primary focus of this research is on project management practices in Asia with respect to construction megaprojects with the involvement of dispersed multi-national PBIJV teams to provide a project considered as successful in terms of not only the iron-triangle of time, cost and quality, but also other factors considered necessary to achieve project success.

The researcher has encountered situations when the lead project manager or lead company of a PBIJV on a construction megaproject, in these particular cases always a Western company, has either due to time constraints or for corporate reasons, a) imposed their own structured Western management tools and reporting structures upon the PBIJV regardless of location and b) relocated a Western project manager with no in-country management expertise and/or relocation training. The Western project manager imposes upon the PBIJV a project management style and structure which is in the main structured, formalized and recorded even

though the Asian management structure and style is more unstructured, un-systemized and autocratic with shades of grey throughout enabling ultimate flexibility.

Although similarities exist in project management styles sponsored by associations and institutes, the Western project management approach would seem to be better served if it took proper account of host country customs and practices, and cultures of project personnel when managing both indigenous and foreign personnel alike as well as dealing with project counterparts within both an IJV and client organization in their host environment.

Many companies issue mission statements emphasizing commitments to issues such as quality, people and empowerment with their own ways of working but when push comes to shove the real focus of companies remain the bottom line and to provide profit and dividends to stakeholders and shareholders alike. Mindful of such corporate needs, IJVs operating in a foreign environment also need to establish if their own 'ways of working' are transportable to optimize the outcome of any particular project for all concerned, in order to achieve an effective and efficient provision of project deliverables.

The companies that operate in foreign environments need to take due account of the environment within which they are about to operate to survive and grow, and optimize the project outcomes through project specific 'structures' that are based on guideline operating and management procedures. In this case the project specific 'structure' considers management styles including local practices, quality project management, Total Quality Management ("**TQM**") and OC management practices. Successful implementation of any project specific 'structure' is essential and the most important ingredient is the human factor – people. Understanding of national culture is critical, together with the ability to clearly communicate on

construction megaprojects via both face-to-face ("**FTF**") communications and via Web-based collaboration systems. This variable of people in the equation needs constant quantifiable monitoring through a flexible chain of matrix command. As such, a structure for an optimum way forward in the form of an efficient and effective management framework should benefit both a common understanding on different projects and company participants alike.

This research is important for Western companies seeking involvement in PBIJVs in Asia for the following fundamental reasons:

1. the largest construction projects in the world are done by PBIJVs managed in a multi-cultural context and require considerable amounts of effort, resources and understanding;

2. the relationships between partners on PBIJVs on construction megaprojects always encounter major roadblocks to project success;

3. the style of business and management in Asia is alien to many project managers and needs to at the very least understood and appreciated; and

4. the 'host team' always has an advantage and as such the host country partner on a PBIJV will always have the upper hand.

Also, this research is important not only for companies both actively involved and considering involvement in a PBIJV in Asia, but also host country partners, Western expatriate project managers and individuals involved in dispersed project teams and e-teams alike.

1.4   RESEARCH QUESTIONS

1.4.1 <u>Research Questions</u>

Despite the cubist nature of this research (Carter: 1999), the basic research questions that has been formulated from the background and justification for the research is:

- *how should a PBIJV approach a complex construction megaproject in Asia; and*

- *how can Western expatriate project managers' best manage and lead the project management of a megaproject from inception to completion and enable the best chance for overall project success?*

1.4.2 <u>Problem Statement</u>

Problem statement

To propose a framework for a Western expatriate project manager on a PBIJV to project manage a complex construction megaproject in Asia from inception to completion for overall project success.

Importance of problem

The main reasons why the problem chosen is important to the researcher, the construction industry and society generally are the following:

- to improve the effectiveness of Western project management systems and tools on complex PBIJV construction megaprojects in Asia;

- to better understand fundamental cultural differences between West and East for such issues as business ethics, corruption, loyalty, networks, trust, *face*, lobbying, logic, decision-making, flexibility and values;

- to improve the understanding of the cultural expectations of Asian project personnel on PBIJV construction megaprojects; and

- to produce a process to improve project management skills on PBIJV construction megaprojects in Asia would be of benefit to Western project managers and could result in enabling multi-cultural teams to work more effectively and efficiently with the ultimate goal of achieving improved levels of performance and project success.

Examples of problem

The following provides three examples of the problem.

Problem Example One

Van Marrewijk *et al* (2008: 591) argued that megaprojects are "characterized by conflict and uncertainty and poor cooperation between partners", highlighted the inherent difficulties in managing megaprojects and considered them as a "complex project delivered through various partnerships between public and private organization – often fail to meet costs estimations, time schedules and project outcomes and are motivated by vested interests which operate against the public interest". These are significant problems, which need to be addressed full on through excellent project management skills to achieve project success, which includes the management of PBIJV matters.

Problem Example Two

Construction megaprojects, particularly infrastructure projects, throughout the world are done by PBIJVs not least to spread risk and obtain local knowledge and contacts. The companies forming such temporary organizations not only have to cope with the problem of differing corporate cultures and work methods but also differing national cultures and fundamental differences between Eastern and Western cultures and beliefs. These problems need to be recognized and properly managed to achieve efficient and effective project teams.

Problem Example Three

Western project managers often enter the Asian construction industry environment for the first time with their instilled values and their own personal and corporate 'ways of working' that will almost certainly not properly harmonize with both the new environment within which they have to perform and the dispersed multi-cultural teams that need to be managed. For example, Drucker (1999: 166) argued "brilliant executives that are being

posted abroad often believe that business skill is sufficient, and dismiss learning about history, the arts, the culture, the traditions of the country where they are now expected to perform".

1.5   AIM AND OBJECTIVES

1.5.1   <u>Aim of Research</u>

The aim of this research is to propose a framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, in a holistic way with a clear focus on good e-teaming communication and flexibility of project manager thought so that the multi-cultural teams can work more effectively and efficiently, better enabling project success.

1.5.2   <u>Objectives of Research</u>

This research studies ways to improve project performance on construction megaprojects in Asia through management and explores ways to solve problems encountered by Western project managers to project manage construction teams on large and complex PBIJVs and to establish a framework for new ways of working.

The following research objectives have been established to achieve the aim of research as stated in Section 1.5.1.

Objective One

To explore the differing ways project managers can manage and lead project teams, and make decisions to achieve construction project success.

Objective Two

To explore Asian ways and culture, approach to organization, management and decision-making processes so that Westerners can better understand differing ways to approach management as a lead partner on a PBIJV in Asia.

Objective Three

To explore whether Western project managers need to apply a basic core philosophy of being simple, holistic, dynamic and flexible for management issues on a PBIJV project in Asia and if it is important to recognize *hard* and *soft* TQM fundamentals to achieve project success.

Objective Four

To explore the importance for project managers to have prior personal relevant experiences, in particular cross-cultural management and exposure to politics, and ways multi-national dispersed e-teams can be organized to achieve good collaboration, quick decision-making and PBIJV success.

Objective Five

To identify factors of success and failure in the project management of construction megaprojects by PBIJVs in Asia with the objective of exploring new ways of working for Western expatriate project managers on construction megaprojects in Asia resulting in improved project manager performance.

Objective Six

To establish a set of *soft* and *hard* management principles and propose an effective framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams.

1.5.3 Research Target and Scope

This research is targeted at companies both actively involved and considering involvement in a PBIJV for a construction megaproject in Asia, host country partners, Western expatriate project managers and individuals involved in dispersed project teams and e-teams. The research was conducted within the scope of PBIJV people actively involved in construction megaprojects in Asia.

1.6   RESEARCH PROCESS

1.6.1 Introduction

This section describes the basic methods and steps taken to choose subjects, construct variables, and gather and present data, so that another researcher can replicate research on the problem statement.

1.6.2 Research Process

The approach adopted for this research is discussed in detail in Chapter Six. A brief description and flow diagram of the research process is presented in this section and Figure 1.1 respectively. The research process has included the following different basic methods and steps.

- **Research methodology** – A holistic view is pursued for this research. Evidence is collated from all possible views of the subject area – top, bottom, sides, front and back. Therefore, this research adopts a cubist research methodology (Carter: 1999). However, the underlying trend of this research does not intend to go 'around-the-world' on a sight-seeing trip, thus this research adheres to a certain duty of research abstention. The resultant effect of such a research methodology attempts to ensure that the dominant theories and views of both knowledge and existence of this particular research is digested and distilled into one synthesized viewpoint.

- **Literature review** – The literature review consists of an extensive review of published literature related to construction industry JVs, IJVs and PBIJVs, management and project management styles, TQM and Asian culture. The published literature on various aspects of JVs is long and rich. Published literature related to IJVs and PBIJVs in China is similarly available. However, published literature is lacking related to IJVs and PBIJVs for construction megaprojects done by PBIJVs in Asia as a whole. The relevant literature is predominantly biased towards a Western perspective and this situation shall be addressed in an attempt to incorporate a more rounded perspective to the problem statement.

- **Exploratory Interviews** – Exploratory interviews were conducted with Western project managers with extensive work experience on construction megaprojects done by PBIJVs in Asia. The researcher's construction industry network in Asia, particularly in Thailand and South Korea, is an important factor to achieve frank discussions, obtain uncensored opinion and receive a high proportion of acceptances from prospective interviewees. The network that the researcher has established in Asia and particularly in Seoul and Bangkok since 1991, although somewhat diminished since late 1997 due to the downturn in live construction projects, is fairly widespread in both the local and expatriate world 'camps' and enables good access for interviews with positive feedback. Case studies were chosen as a result of the outcome of the exploratory interviews.

- **Case Studies** – Feagin *et al* (1991) argued that a case study approach is an ideal way to pursue a holistic and in-depth investigative research. Chapter Six presents further arguments why a case study method is the preferred choice. The organization and project management styles, methods and tools of three PBIJV construction megaprojects – the reclaimed 1,500 acre Songdo International Business District development near Seoul, the Parc One commercial

development in Seoul and the AIG development in Seoul – is investigated.

- **Effective Construction Megaproject Management Framework** – A framework for an optimum way forward in the form of an efficient and effective construction project management framework is proposed for Western managers on complex PBIJV construction megaprojects in Asia, which should benefit both a common understanding on different projects and company participants alike. Firstly, the framework is based upon the literature review. This Conceptual Framework is developed, firstly, to include the stage one exploratory interviews in

Exploratory literature review of UK construction industry, project management, organization, environment, Asian Ways and culture, Overseas Chinese in Asia, TQM in construction, partnering and JVs, multi-national teams and communication	Chapters 2-4
In-depth review of complex project management of megaprojects in Asia by PBIJVs and success factors for improved performance	Chapter 5

Develop key questions to be addressed by the research

Establish research aim and develop the key objectives of the research

Determine research strategy & select appropriate research methods and do exploratory interviews — Chapter 6

Establish a Conceptual Framework based upon the literature review for project managers to manage multi-cultural teams on construction megaprojects in Asia and analyse exploratory interviews — Chapter 7

Develop Primary Framework and select case studies based upon outcome of exploratory interviews

Investigate the project manager factors of project success and failure

Investigate project working practices and procedures of dispersed project team stakeholders on PBIJVs

Study primary and secondary data on project team management — Chapter 8

Within-case analysis

Cross-case analysis — Chapter 9

Develop an Intermediate Framework, validate, establish Final Framework — Chapter 10

Research findings, conclusions and recommendations for future research work — Chapter 11

Figure 1.1: Flow diagram of research

the form of a Primary Framework and secondly, to include the case study findings in the form of an Intermediate Framework. The final changes to this framework are made after the completion of the validation process resulting in the presentation of a Final Framework.

1.7   STRUCTURE OF THESIS

This chapter introduces the research topic, highlights the research problems and provides an overview of the thesis. This thesis comprises a further ten chapters and the following is a brief description of each of the other chapters:

- Chapter Two reviews literature about the construction industry, organizations and management, project performance and the environment, in particular the adversarial and fragmented nature of construction with its numerous participants, all of whom are required to provide a completed construction project. This review is with the objective to better understand the significant challenges faced by organizations and project management alike in the modern-world to produce construction projects with ever increasing constraints;

- Chapter Three reviews literature about Asian ways and culture with particular emphasis on South Korea as part of the Confucian Asia cluster of countries and Thailand as a part of the Southern Asia cluster. Asia has over 50% of the world's population, is a tremendously diverse region comprising of all world religions and a host of cultures, and along with Europe and America is the world's economic engine. However, Asia is unlike the West and has fundamentally different ways of working, which can seem very strange, unusual and not really proper to Westerners. This review will focus on the people, religion, organization, management, cultural differences, ethics and corruption in these countries. The influence of China and in particular that of the OC network on Asian ways insofar as it relates to business, politics, family, *face*, confrontation, networks and trust is also reviewed. These reviews are all with the objectives to better understand the Asian

approach to organization, management and decision-making processes for Westerners to better understand how to approach working as a lead partner on a PBIJV in Asia;

- Chapter Four reviews literature about quality systems, quality management, TQM and *hard* and *soft* management skills in the construction industry through quality systems and TQM respectively, where project success revolves around the good management of quality at each stage of the development of a construction project and the quality of management throughout all stages. These reviews are with the objectives to investigate the similarities between Asian management styles and TQM, to understand that quality on projects takes more than words, it takes planning, systems, people and hard work, to show that project managers need to have a holistic helicopter view style and that TQM provides a holistic framework for the operational activities of construction enterprises and can be defined as a holistic management philosophy;

- Chapter Five is about IJVs and reviews literature about JVs, multi-national teams and the importance of integration, trust, information, communication and coordination on construction megaprojects done by PBIJVs. PBIJV projects with foreign participation tend to be large organizations and involve collaborations between companies of differing nationalities developed for a defined duration to often do construction megaprojects with the involvement of many key stakeholders. The culture of these JVs, as with the construction industry and projects, is unique and the control of them is complex due to their very nature. PBIJVs generally comprise of specialist expatriate knowledge workers within multi-national teams, which are globally dispersed. The objective of this review is to investigate the importance of trust and one-teaming in the e-project environment of PBIJV megaprojects;

- Chapter Six describes the research approach and discusses the methods chosen to achieve the research aim and objectives. The

implications and concerns on the choice of exploratory interview and case study approach, and framework validation approach are justified. Methods and techniques used in data collection, analyses and interpretation are also presented; and describes the exploratory stage one interviews done with the participation of Western project managers with extensive work experience on construction megaprojects in Asia;

- Chapter Seven introduces the Conceptual Framework listing key dimensions required to effectively project manage PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams;

- Chapter Eight introduces the Primary Framework, based upon the findings of the exploratory interviews, listing key dimensions related with how to project manage PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams; and describes the three case studies. Within-case analysis of the findings from data collected through questionnaires, stage two interviews, observations and documentation are presented. The chapter concludes on the practices identified on each case study associated with the project management of PBIJV construction megaprojects in Asia;

- Chapter Nine presents and provides a cross-case analysis of the data collected from the three case studies;

- Chapter Ten introduces the Intermediate Framework, based upon the findings of the within-case and cross-case analysis findings; the validation assessment of the Intermediate Framework and presents the Final Framework, which proposes a guideline for Western project managers to manage PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams; and

- Chapter Eleven provides a conclusion of the problem areas and objectives from the findings of an analysis of the case studies.

The outline of the structure of thesis is depicted diagrammatically in Figure 1.2.
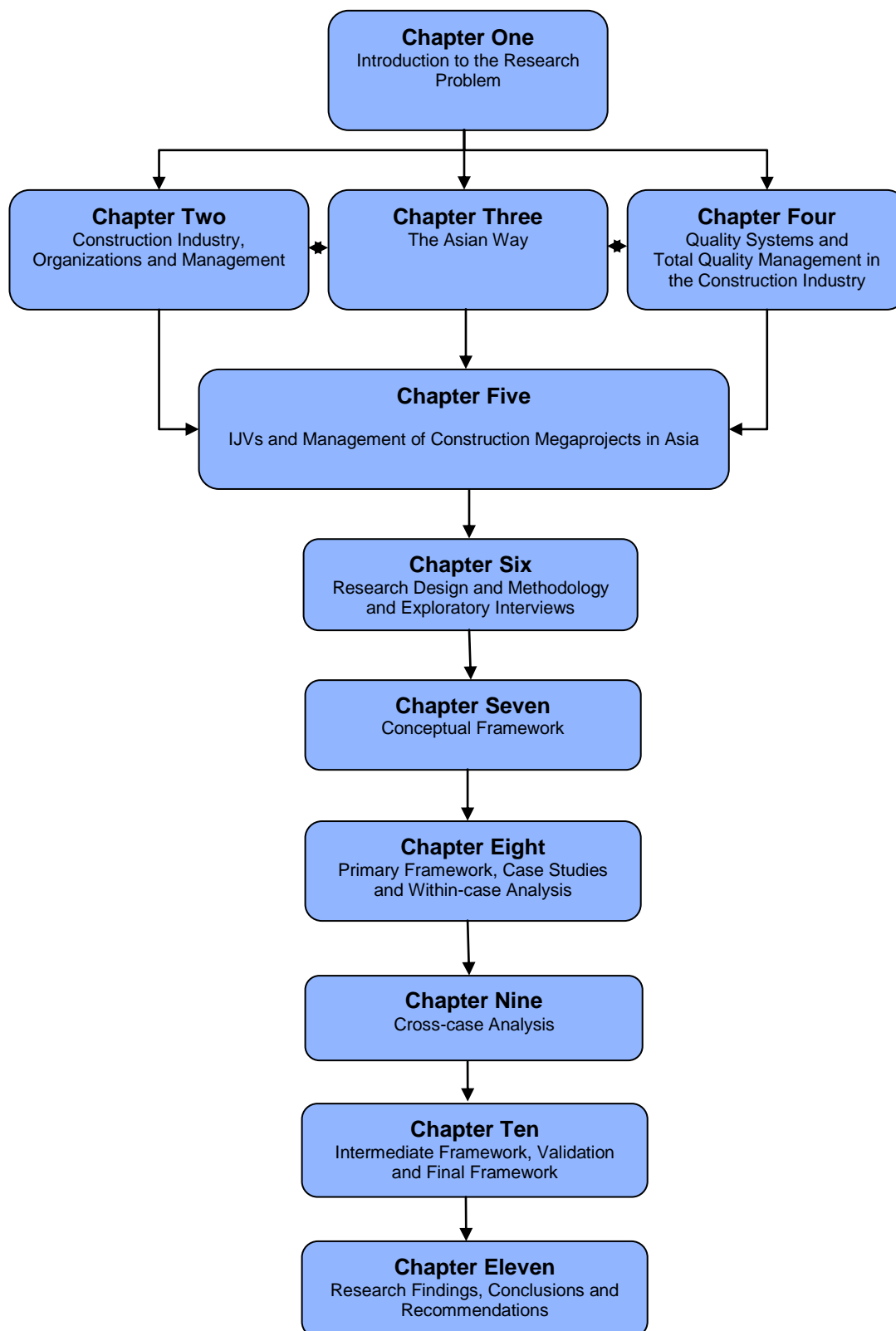
Figure 1.2: Outline of the structure of thesis

1.8   SUMMARY OF MAIN FINDINGS

1.8.1   Introduction

This section is a summary of main findings of the exploratory interviews, case studies, research data, framework and validation questionnaire findings.

1.8.2   Stage One – Questionnaires and Exploratory Interviews

Questionnaires were completed and exploratory interviews conducted for screening purposes with eight Western project manager participants with working experience on construction megaprojects with PBIJVs in Asia. Both the Southern and Confucian Asian clusters were represented in this part of the research process. Details of the questionnaire responses and exploratory interviews are provided in Chapter Seven. The following are the main findings from the analysis of the questionnaire responses and exploratory interviews:

- Personality traits – out of the 22 different responses from the interviewees the only exact matching response was being open-minded. This response from three interviewees.
- Personal attributes to manage successfully in Asia – the only exact matching response from the interviewees was the need for patience. This response was given by six of the eight interviewees. The need for flexibility was also evident in three responses as was culture in two responses.
- Virtually all responses given by the project managers considered to manage successfully, *soft* rather than *hard* management attributes were important. The only response given, which could be linked with *hard* management attributes referred to having expertise.
- A comparison between the responses for personal attributes and personality traits required to successfully project manage in Asia indicated a gap between what the interviewees considered as

important personality traits and the perceived personality attributes of the interviewees.

1.8.3 <u>Stage Two – Screening Process Operational Criteria</u>

The completed questionnaires and exploratory interview responses were analysed for compliance or otherwise with the screening process operational criteria. The findings of the analysis are provided in Chapter Seven. The following are the main findings of the analysis:

- Only one participant failed to meet in full the first part of the screening process operational criteria. However, four projects were individually of an insufficient size to be classified as a megaproject, although they did each form part of an overall megaproject. Therefore, only three participants were compliant with the operational criteria and selected for case study purposes.
- Full compliance of the screening process operational criteria was achieved by three of the Confucian Asia cluster participants and none of the Southern Asia cluster participants.

1.8.4 <u>Case Studies</u>

The case studies comprised of three stage two interviewees, which investigated individual and collective attitudes and behaviours of professional managers actively involved on construction megaprojects with PBIJVs in Asia. Details of the within-case and cross-case analysis of the case studies are provided in Chapters Eight and Nine. The findings include the following:

- Emerging dominant themes of Asian variables, managing IJV projects, dispersed people/one-teaming, family dynamic and visions for the future with sub-themes of *hard* and *soft* management.
- Theme categories of PBIJV and lead JV project manager with sub-categories for PBIJV of key success factors, main problems and main risks, and for lead JV project manager of project manager profile, manager philosophies in Asia and project management focus.

- Main PBIJV success factors are excellent planning and motivating the project team.

- Main PBIJV problems include not enough internationally recognised regulations and legislation in construction in Korea, understanding the local ways of working and communicating with the local people on the project, management of remotely-based project consultants and maintaining a happy family in-country and managing project-related issues were equally pressurised.

- Main PBIJV risk is differing corporate cultures.

- Project manager profile include adapting home-based project management style to suit the demands of managing in Korea, being open-minded was one of the most important attributes for a project manager, flexible and holistic management approaches, confidence, good communicators, open to new challenges, professionally competent and sensible, and the most important management principles for project managers are being aware, fair but firm, realistic and to have situational flexibility.

- Project manager philosophies for Asia are that neither the Western way nor the Asian way is the only way to manage, hardworking and rigidity best described the basic management philosophies of local JV management staff, holistic management style was required to adequately manage the external environment, and project managers should not focus on *hard* project management skills more than *soft* skills.

- Project management focus on the study of national culture.

1.8.5 Framework and Validation

The findings of this research concluded that a framework to improve project management skills on complex PBIJV construction megaprojects in Asia would be of benefit to Western project managers and could result in enabling multi-cultural teams to work more effectively and efficiently with the ultimate

goal of achieving project success. Although of the three interviewees, one argued that a framework would be of no particular benefit and another thought whilst such a document may prove useful was not convinced it would actually be referred to by project managers. The framework was developed progressively over the four following stages:

- Conceptual: in Chapter Seven – from the literature review.
- Primary: in Chapter Eight – from the analysis of the screening process.
- Intermediate: in Chapter Ten – from the analysis of case studies.
- Final: in Chapter Ten – from the validation process.

CHAPTER TWO – CONSTRUCTION INDUSTRY, ORGANIZATIONS AND MANAGEMENT

2.1 INTRODUCTION

Construction is a significant industry, which requires efficient and effective organizations and appropriate management competencies to produce quality construction projects. This chapter reviews literature about the construction industry in the UK and in particular the adversarial nature of the construction industry and its fragmented nature with numerous participants who are required to provide a completed construction project. This review explores the significant challenges faced by organizations and project management alike in the modern-world to produce construction projects with ever increasing quality constraints. Of particular importance in this research is the role of project managers in the construction and property industry and the competencies, traits and ethical behaviour required to manage and lead project teams with the aid of both *hard* and *soft* management skills to achieve project success in a dynamic environment. As such, the objective of this chapter is to explore the differing ways project managers can manage and lead project teams, and make decisions to achieve construction project success. This exploration shows that project managers need to manage and lead project teams, recognize the importance of the people in the teams, positively encourage team integration with total communication on projects and have a full range of *hard* and *soft* skills with a holistic management style in the decision-making process to achieve construction project success always mindful of internal and external environments in an ever increasing global workplace.

2.2   THE CONSTRUCTION AND PROPERTY INDUSTRY

2.2.1   <u>Introduction</u>

The construction and property industry has a major influence upon society and general quality of life through urban development and infrastructure projects (Baldry: 1997). It is a significant and dynamic industry and needs to continuously respond to changing economic conditions (Gruneberg: 1995) as well as to react to social and technological changes (Pheng and Omar: 1997). The economic significance of the construction industry is reflected by the fact there can be no economic activity without this industry (Liu *et al*: 2004), where its performance provides one of the most significant economic indicators (Snape: 1996).

The yearly output of the construction industry in the UK is about £65 billion, amounting to almost eight per cent of gross domestic product, and it directly employs about 1.4 million people plus in the region of another 500,000 people in the construction professional services and materials and components sector, which in total is equivalent to about seven per cent of the British workforce (Latham: 2000). Unlike some other industries, which decline over time never to be revived, construction will continue to be an important domestic employer due to the continuous need for new building stock and refurbishment works to existing building stock (Druker and White: 1996).

The construction industry in the UK has been strategically reviewed on a regular basis over the last 50 years or so (McCabe: 2006) and has been subject to a government report every three to five years (Murray and Langford: 2003). Despite such reviews and reports the construction industry for the most part has remained traditional, conservative and pragmatic (Stockdale: 1998a) with many observers perceiving the construction industry as backward.

The construction industry is one of the most diverse businesses in the world with dynamic and complex industrial environments with characteristics, which

present a challenging context for effective management of human resources (Raiden: 2004). It is an industry that has a long tradition of being able to respond to demands from clients and operate under extreme conditions. In this industry, construction projects are for the most part generally unique (Hawkins and Rajagopal: 2005) covering numerous different products involving people from a broad range of professional, social and cultural backgrounds (Preece and Tarawneh: 1998). During the early nineties, such an industry dynamic with its countless participants led to calls to reconfigure the industry to increase performance levels.

The *Latham Report* of 1994 thoroughly reviewed the state of the UK construction industry and made recommendations such as greater use of the following:

- project partnering;
- alternative dispute resolution;
- Public-Private Partnership (formerly Private Finance Initiatives) initiatives;
- JVs between developers and contractors; and
- non adversarial contracts.

The *Latham Report* was followed up by the *Egan Report* of 1998, which viewed the construction industry from the perspective of project customers and identified the five following key drivers of change:

- committed leadership;
- focus on the customer;
- integrated processes and teams;
- quality driven agenda; and
- commitment to people.

These Reports recognized that the construction industry is unlike any other industry and cannot be viewed in the same way as other manufacturing industries, such as the car industry.

One of the main issues facing the construction industry is its fragmented nature of delivery and diverse range of project types with both building and civil engineering projects, the various number of technologies used, the involvement of private and public sector clients together with government bodies, the vast array of specialist professional consulting and contracting companies involved at varying stages of project development and construction, all resulting in a complex structure for the construction industry (Kwakye: 1997). Mindful of the uniqueness of the industry, these Reports recommended change even though the construction industry is historically reluctant to change (Chileshe and Watson: 1997) and at times has no wish to change. However, the construction industry needs to move with the times – it cannot afford not to change. In *Responding to Latham*, Simms (1995: 9) stated that "fundamental changes are required to reshape Britain's construction industry. We can no longer accept a 19th century framework". To initiate such fundamental changes many organizations have used the TQM management style, which fosters innovation and teamwork while focusing on continuous process improvement and long-range planning. A literature review about TQM in the construction industry is in Chapter Four.

Despite corporate constraints, the industry – including clients, educational facilities and professional institutions – needs to work more closely together and combine their talents to move towards a less fragmented and adversarial environment, namely a modern construction industry. A key factor for success is for the construction industry, not just construction companies, to be receptive to change and flexible.

2.2.2 The Client

Rethinking Construction recognized that the client for any particular construction project may be an entrepreneur, property developer, end-user, institution, organization, local authority, government department, statutory

authority, nationalized industry or even the construction company building the project where the public sector is the largest client of them all.

The expectations of clients are high and dissatisfaction with the quality of the construction industry widespread. In *Rethinking Construction* it was stated that the *British Property Federation's* 1997 survey of major UK clients revealed:

- more than a third of major clients are dissatisfied with contractors' delivering a final product of the required quality; and

- more than a third of major clients are dissatisfied with consultants' performance in design and innovation.

However, the *Latham Report* implied that the client is the source of many problems and it is particularly important that clients set clear objectives (Ward *et al*: 1991). Indeed, clients have a major role in the development of the construction industry and are significant players in the construction industry, and the other stakeholders in the construction industry must be flexible enough to understand the needs and wants of the client (Preece and Tarawneh: 1998) and accept economic realities. Moreover, the needs and wants of clients differ. Some clients may strive for innovation and other clients for traditional practices. As an example, in Hong Kong "clients and architects still retain the ultimate authority in approving subcontractors, materials used, and the construction process. Hence contractors need to follow instructions in carrying out their works. Thus there is little room for contractors to contribute innovative, cost saving and quality enhancing suggestion" (Tam and Tong: 1996, 129). This is the 'Asian Way'.

The construction industry as a whole needs to change and such change requires total involvement from Government and clients. *Rethinking Construction* stated that "we are not inviting UK construction to look at what it does already and do it better: we are asking the industry and Government to

join with major clients to do it entirely differently. What we are proposing is a radical change".

2.2.3 <u>Professional Consultants and Service Providers</u>

The UK construction and property industry can at times involve an inordinate number of professional consultants and service providers. Jones (1995: 37) argued that "in Britain there are more consultants per head of population, more debate, and more rhetoric, than in Japan or leading European companies".

For the most part the body of professional services available to the construction industry such as architects, quantity surveyors, mechanical engineers, electrical engineers, structural engineers, specialist engineers and other service providers traditionally work directly for the client in accordance with the basic principle shown in Figure 2.1. However, there is an ever increasing trend within the construction industry for the client to appoint a project manager to oversee all construction matters in an attempt to provide a one-stop specialist service and thus hopefully achieve a more efficient management process.

Alternatively, a consortium consisting of architects, quantity surveyors and engineers can be formed to more easily manage and administer projects and the environment within which they operate (Walker: 1996). However, these traditional organizations, whilst structured, remain disjointed and subject to power plays. As argued by Latham (2000: 25), "some consultants do not regard themselves as part of the supply side at all, but rather as an extension of the client or, indeed, as the client".

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                    ┌─────────────────┐
                    │   The Client    │
                    └─────────────────┘
              ┌──────────────┴──────────────┐
    ┌─────────────────┐           ┌─────────────────┐
    │  Professional   │           │ Main Contractor │
    │    Services     │           └─────────────────┘
    └─────────────────┘                    │
                                ┌─────────────────────┐
                                │     Specialist      │
                                │ Subcontractors and  │
                                │      Suppliers      │
                                └─────────────────────┘
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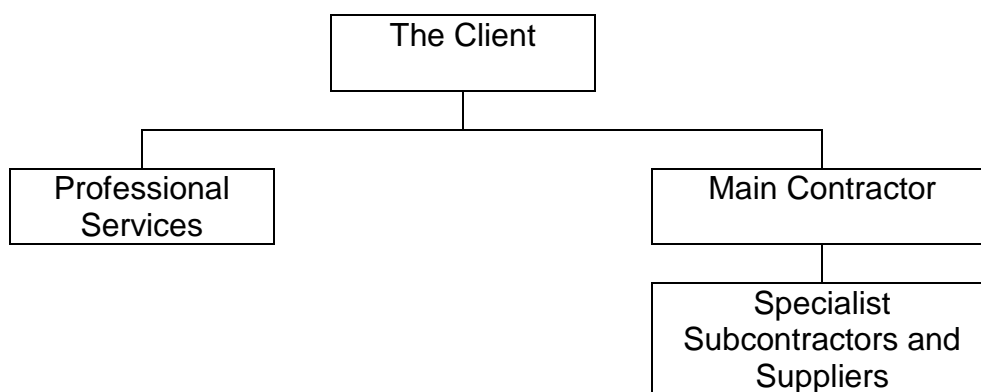
Figure 2.1: Traditional contractual organization

2.2.4 Construction Companies

The construction company is the organization that is contracted by the client to construct the required building or civil engineering project. Unlike the manufacturing industry construction is project-based rather than product-based, which means that actions and processes occur only a limited number of times in any one project, which reduces the scope for measuring improvement which the repetitive nature of manufacturing processes gives. Moreover, the problem with such an industry trait and the fragmented nature of the construction industry, as mentioned earlier, is exacerbated by the continually changing composition of the workforce and procurement practices such as subcontracting in the industry and procurement of highly differentiated products and services under a fragmented supply chain structure (Ng *et al*: 2004). In the UK during the nineties, the largest construction companies tried to rationalize and simplify such structures by divesting themselves of activities which were not central to their businesses by offloading parts of the operation which were loss leaders or not core (Druker and White: 1996). Such restructuring activities were generally forced through economic hardship rather being proactive.

This hard truth was particularly true in Asia after the financial crisis of the late nineties where, for example, large Korean *chaebols* were forced by new financial constraints and market reality to downsize and concentrate on only

core activities. The world-wide credit crisis of the late noughties, which was triggered in the West, shall no doubt similarly force further reviews of operating practices and enforced restructuring, although unlike the UK the might of labour unions in Korea still looms large over the construction contractors.

2.2.5 <u>Characteristics of the Construction Industry</u>

Construction industry

Traditionally, the construction industry has been a family business, passing from one generation to the next. As a result, even large developers and construction companies today are still family owned. Consequently, many heads of these companies are conservative and sceptical of changes and still remain loyal to traditional methods of business passed down by their ancestors. Moreover, the construction industry is traditionally the domain of men and is strongly classed (Evetts: 1996), quite feudal, and military in structure (Greed: 1997). The construction industry has its own ways. It is unique with its differing client needs, management practices, construction sectors and methods (Pheng and Omar: 1997).

The fragmented nature of the industry and the acceptance, without thinking, of industry practices such as rework need to be challenged. *Rethinking Construction* stated that "the rationale behind the development of an integrated process is that the efficiency of project delivery is presently constrained by the largely separated processes through which they are generally planned, designed and constructed. These processes reflect the fragmented structure of the industry and sustain a contractual and confrontational culture".

All of the project stakeholders, with their own aspirations and agendas, make, facilitate or are affected by project decisions. These stakeholders may include the general public, sponsors, buyers, investors, users, or the project team (Joham *et al*: 2009). Table 2.1 presents a comprehensive listing of the

vast array of key project stakeholders and policy makers with a voice in the UK construction and property industry.

This large amount of key stakeholders resulting in the previously mentioned fragmented nature of the construction industry with the almost inevitable conflict between multiple powerful stakeholders remains an *Achilles* heel in achieving a unified approach within an individual project let alone the industry as a whole. An integrated approach with a common goal of project success needs to become a characteristic of the industry with more standardization to improve communication to reduce costly inefficiencies (Baldwin *et al*: 1996).

Table 2.1: Comprehensive listing of the key project stakeholders
Source: Edum-Fotwe and Price (2009)

Investor	Regional Development Agency
Producer	Regulatory Governmental Body
Manufacturer	Local government
Owner	Regional government
Occupier/ user	National government
Urban planner	NGO/pressure group
Developer	Trade union
Architect (buildings, interiors and landscape)	Voluntary sector
Engineer	Local community
Builder	Public in general
Facility manager	Researcher/academic
De-commissioner	Health care
Insurer	Young people/future generation
Surveyor	Wildlife trust
Professional advisor (legal, H&S)	Financial institution

Some of the key stakeholders need to form integrated teams. In *Accelerating Change*, the Strategic Forum stated that an example of an integrated construction team consisted of:

- owners and clients;
- construction and facilities managers;
- quantity surveyors;
- constructors;
- key manufacturers;
- design consultants; and

- specialist consultants and contractors.

Contracts

In *Responding to Latham*, Ive (1995: 40) argued that "Latham does not see integration/fragmentation as the main issue…but places more emphasis on form of contract". "Contracts, both their setting-up and operation, have long been problematical in the construction industry" (Lavender: 1996, 284). Just the mention of a construction contract seems to instil negativity into any conversation. The construction industry mindset does not appear to be ready to accept that the construction contract is attempting to, in simple terms, clearly define the rules of the game and to show the obligations of each party and the associated risks (Critchlow: 2000). Projects simply need construction contracts that "reward individuals and organizations for adopting the right behaviours for hitting project goals and for working as a team when problems arise" (MPA: 2007a, 2).

The perennial construction industry statement that the best thing to do with a construction contract is to leave it in the drawer should be a distant memory. Contracts should not be forgotten once they have been signed. Contracts needs to be properly administered at all times through effective project management procedures (MPA: 2007b). Clarity of construction contract wording is essential to best avoid vested interest interpretations. Although, even with clear contract language, the administration of contract requirements is by people with their multitude of tacit assumptions, understandings and feelings with goals to get the work done in spite of the formal provisions of a construction contract (Shammas-Toma *et al*: 1998).

His Honour Humphrey Lloyd QC, a former judge of the Technology and Construction Court in London suggested that "most problems with contracts come down to human behaviour" and "the question of trust as the cornerstone of relationships and the bedrock of any successful contract" (MPA: 2007a, 2).

2.3   ORGANIZATIONS, MANAGEMENT AND LEADERSHIP

2.3.1   Introduction

Construction and property organizations need to be properly structured to optimize the strengths of their assets. The organization, as structured, needs to be effectively and efficiently managed and properly led by senior management to achieve corporate and project success. Organization structures are not fixed and can vary relative to such matters as organization size, ability of employees, project and office locations and the internal and external environment. However, whichever organization structure is chosen there will be a hierarchy (Pirsig: 1999).

As already highlighted, the construction industry is heavily fragmented and inherently difficult to manage. Each project is unique and in many cases a virtual prototype with, in some cases, management being in a location remote to the project with site operatives focused on building and not management (Macgee: 1994).

2.3.2   Organizations

Organization structure has the three following main types of structure:
- line;
- staff; and
- functional.

Figure 2.2 shows an example of a basic typical business organization structure. As with business organizations, it is important to have an organizational structure for the staffing of a project from the outset of a project to ensure transparent and clear chains of command are established at the outset of a project as the survival of all depends on clear command (Drucker: 1999). Such an organizational chart is a pictorial explanation which shows the formal relations a project intends although there will in most cases almost certainly be informal relations within the organization.

```
                              ┌───┐ Chief executive
Top management             ┌──┴───┴──┐ Senior executives
                         ┌─┴─────────┴─┐ Department or division
                                         heads
Middle management     ┌──┴─────────────┴──┐ Superintendents
                    ┌─┴─────────────────────┴─┐ General foremen
Supervisory       ┌─┴───────────────────────────┴─┐ First-line
management        └─────────────────────────────────┘ supervisors
                              Workers
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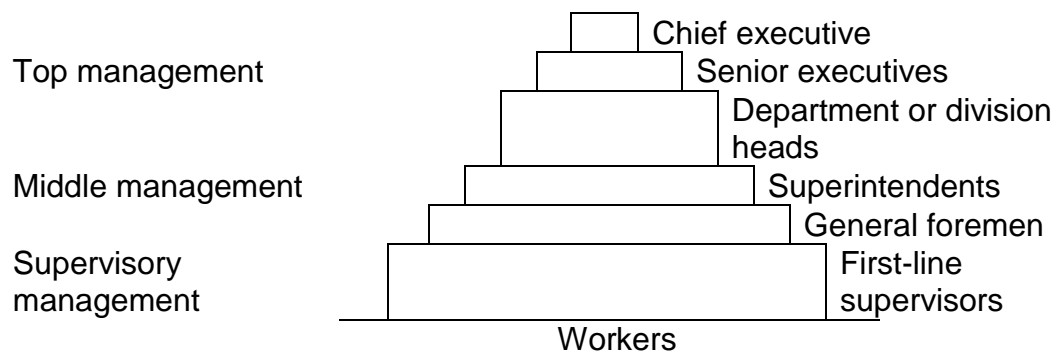
Figure 2.2: Typical business organization structure

There is no such thing as a single structure which is suitable to fit all organizational types. Whichever structure is designed it is imperative to define authority, responsibility and accountability of the staff. The basic concept of the functional structure was part of the management approach suggested by Frederick Taylor to organize the work of foremen. This functional system was well suited to a situation where management skills were scarce. Figure 2.3 shows a typical basic functional organization chart. However, Hyväri (2006) argued that the traditional functional organization is not the best structure in competitive global markets, which demand fast changes and responses from organizations.

Organizational structures on construction projects are generally framed in a pyramid format, with a project manager at the apex and supporting staff below, increasing in number at each level with the size of the project determining ultimately how large the organization will grow (Bishop and Gembey: 1985). Such organization structures based with functional departments carrying out tasks have been commonplace for the last 200 years (Hammer: 1996).

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                    ┌─────────────────┐
                    │    General      │
                    │    manager      │
                    └─────────────────┘
           ┌────────────────┼────────────────┐
   ┌──────────────┐                    ┌──────────────┐
   │  Personnel   │                    │  Accounting  │
   │  department  │                    │  department  │
   └──────────────┘                    └──────────────┘
   ┌──────┴──────┐               ┌──────┴──────┐
┌──────────┐ ┌──────────┐   ┌──────────┐ ┌──────────┐
│Department│ │Department│   │Department│ │Department│
│  head    │ │  head    │   │  head    │ │  head    │
└──────────┘ └──────────┘   └──────────┘ └──────────┘
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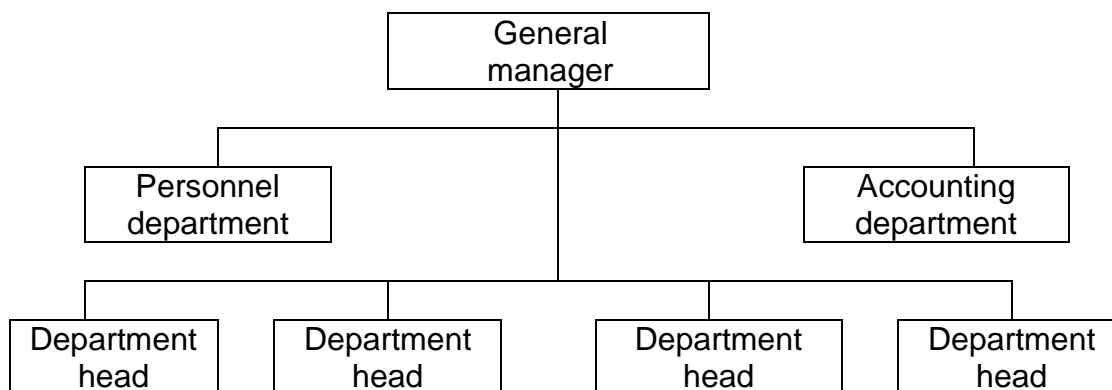
Figure 2.3: Functional organization chart

Large organizations use matrix organization structures on projects such as that detailed in Appendix A.1. Project matrix and project team-based organizations are the most effective where organizational design is associated with project management effectiveness (Hyväri: 2006). The larger the project the more likely an organization structure will evolve into being complex, bureaucratic and cumbersome with too many layers of management leading to slow decision-making processes and ultimately project delays.

The organization structure will not work without the ability and more importantly dedication and hard work of the people forming the organization. The way in which an organization works as a whole is important with each organizational function and department performing their work on schedule and in a way that is supportive of others in the organization (Kerzner: 1995 and Oakland and Porter: 1996).

2.3.3 <u>Management</u>

Pheng and Peh (1996: 39) stated that "the design and construction of a building or civil engineering project is one of the most complex and difficult industrial undertakings. It requires management skills of a high order and is frequently undertaken by firms with little or no formal training in management".

Organization structures do not manage themselves; they need to be managed by people. The following steps of management are fundamental to properly manage any construction project (Hawkins and Rajagopal: 2005 and Turner: 2006):

- planning what has to be done;

- organizing by deciding who is responsible for what;

- implementing by getting people to take on that responsibility; and

- controlling progress as the work is done.

A key component to properly do all of these management steps in an effective manner requires communication (Armstrong: 1970) with a continuous loop of feedback to staff and first-line management (Knights and McCabe: 1996).

There is no one way to manage an organization and management cannot be regarded as an objective science. Management is primarily concerned with achieving economic organizational objectives where different organizations, circumstances and management tasks require different approaches (Lavender: 1996). Douglas McGregor's book *The Human Side of Enterprise* (1960), asserted that managements have to choose between two and only two different ways of managing people, "Theory X" and "Theory Y". Not a very holistic viewpoint, but nonetheless different people have to be managed differently (Drucker: 1999). There are various types of management styles; one of them is the traditional management style (Mortiboys and Oakland: 1991).

For the most part business organizations have to manage the provision of the same services and deliverables over and again. As such a large percentage of what organizations are concerned with on a day to day basis is generic and only a relatively small percentage of management has to be fitted to accommodate the organization's specific project, culture, history, vocabulary and people (Drucker: 1999).

The growth of multi-national companies ("**MNCs**") and global markets has diminished national differences. Methods of management need to adapt to such multi-cultural environments in order to succeed. The transferability of differing management styles across international boundaries need to adjusted to suit. However, according to the findings of Hofstede, "Japanese methods of management should not work in Britain. However, many Japanese firms appear to disagree, judging by the numbers who have set up operations in the UK in recent years" (Lavender: 1996, 167).

2.3.4 Projects

Ogunlana *et al* (2002: 385) argued that "a typical project can be described as complex system of a large number of interrelated and interconnected elements, various organizational units and a wide variety of people".

Projects commence upon the birth of an idea and can be very complex operations. The longevity of projects will initially depend upon its feasibility. The journey for projects from inception to closure by its very nature brings together many disparate parties, skills and resources. There are the following four basic key stages for any successful venture (Hawkins and Rajagopal: 2005):

- concept;
- contracting;
- construction; and
- closure.

Construction projects are one-off endeavours with many unique features such as project environment, project size, time availability of project, complexity of project, project team relationship, materials and supplies of project and duration of the project (Pheng and Chuan: 2006), financial intensity and dynamic organization structures (Zou *et al*: 2007).

The characteristics of a project need to be adequately understood by management from the outset. Construction project characteristics can be best defined in terms of project scope, nature of project and complexity of project (Chan: 2001). Van Donk and Riezebos (2005) referred to the following concerning project characteristics:

- projects tend to be larger and more complex, necessitating collaboration of different disciplines (for which knowledge of capabilities is needed);

- people tend to work shorter for individual organizations (job-hopping) and need to help in finding experienced people in their new organization; and

- new products and markets have to be reached, for which management needs all the information and experiences of all employees at hand.

Further examples as put forward by Arditi and Gunaydin (1997) are:

- almost all construction projects are unique. They are single-order, single-production products;

- unlike other industries, which usually have a fixed site with similar conditions for production, each construction production site always displays different conditions;

- the life-cycle of a construction project is much longer than the life-cycle of most manufactured products;

- there is no clear and uniform standard in evaluating overall construction quality as there is in manufactured items and materials; thus construction projects usually are evaluated subjectively;

- since construction projects are a single-order design project, the owner/client usually directly influences the production; and

- the participants in the construction project-client, designer, general contractor, subcontractor, material supplier, etc. differ for each project.

Projects in the construction industry can range from minor works through to complex megaprojects, which literature and studies also refer to as complex projects, major projects and giant projects (Ruuska *et al*: 2009). The larger the project the more dependent the project requires the early establishment of appropriate organization structures along the varying stages of the project with professional management and continued team effort along the way to achieve project success. However, for projects spread over a number of years, maintaining team motivation can be difficult.

Megaprojects will almost certainly require the involvement of various large MNCs, governments and government organizations. The nexus between business and politics will be clearly evident in such megaprojects. Van Marrewijk *et al* (2008: 591) referred to Flyvbjerg *et al* (2003) who contended that "the majority of megaprojects overrun on costs, fall behind schedule, and fail to deliver in the terms used to justify the need for the project. They suggest that the main cause of such of overrun is a lack of realism in initial cost estimates, motivated by vested interests. The length and cost of delays are underestimated, contingencies are set too low, changes in project specifications and designs are not sufficiently taken into account, changes in exchange rates between currencies and price changes are undervalued, as are expropriation costs, safety, and environmental demands". Such issues on megaprojects need to be project managed by professionals proficient in the art of project management in the construction and property industry having a proper understanding of projects from concept through to closure.

2.3.5 **Project Management**

According to Stamatis (1994) there are at least the two following significant ways where project management differs from other management principles:

1. projects have a finite life span, where other organizational units expect perpetuity; and

2. project resources are on a part-time and full-time basis whereas permanent organizations require resource utilization on a full-time basis.

Modern project management has its origins in the management of large, complex and unique technological activities in, predominantly, the aerospace, construction and defence industries (Bryde: 1997). The management of a company will set objectives to the project team and project management will action these objectives through strategy and implementation (Hawkins and Rajagopal: 2005), where an important and difficult part of project management is that a project is properly defined and appropriately scoped (Joham *et al*: 2009). The uniqueness of the construction industry has made construction project management a distinct discipline as it poses considerable challenges (Toor and Ofori: 2008).

The management practice of project management has been used a lot in the nineties (Kerzner: 2003) as it provides the ability to plan, execute and control activities in a systematic way (Meredith and Mantel: 2006) as a means to achieve their objectives (Jung and Wang: 2006). Project management is in essence simple. Project management pulls together the functional disciplines needed to achieve the project's budgetary, schedule and technical objectives (Morris and Hough: 1993) scope, organization and quality (Turner: 2006) where the role of project management is to find the optimum way to integrate the team, which may include the complication of alliances and partnerships (Hawkins and Rajagopal: 2005).

Project management must take a holistic view of the project and anticipate rather than react to situations (Hawkins and Rajagopal: 2005).

Project management does not have a unified approach within the construction industry. Although, the British Standards Institute ("**BSI**") does have a guide to project management, namely, BS 6079-1: 2002. Currently,

not only do different organizations use different approaches to project management but different geographically located organizations within the same organization may use different approaches to project management.

Project management services are often provided on construction projects by companies with staff that have not had any educational training to provide such a service. Project management consultancy services are provided by construction professionals such as architects, contractors, civil engineers and surveyors (Odusami *et al*: 2003).

2.3.6   <u>Project Managers</u>

Project managers

There is an ever increasing importance to owners/clients for projects to be completed on time, to budget and to the specified quality by the increasing use of project managers to oversee the design, construction and cost control processes (Harkin and Gunning: 1999). Such responsibility places project managers at the "centre of an intricate network of relationships – customers, suppliers, stakeholders and team members – each with different perspectives on the project" (Hales: 2008a, 13). However, although project work can be a dynamic and exciting endeavour requiring creativity and relationship skills, less spectacular activities fill a project manager's day-to-day work (Styhre: 2006). This day-to-day work includes the responsibility for the overall success of delivering a project to meet the stated expectations of the owner/client brief (Edum-Fotwe and McCaffer: 2000). Project managers need to be decisive to ensure deliverance of such to the client as it is the opinion of the client that is the ultimate opinion that counts (Reiss: 1996).

The primary role of project managers is to manage and direct teams (Hawkins and Rajagopal: 2005) and be skilled in the areas of technical expertise, team building, coordinating (Brunetto and Farr-Wharton: 2003) leading, communicating (Brunetto and Farr-Wharton: 2003 and Edum-Fotwe and McCaffer: 2000), negotiating, problem solving (Edum-Fotwe and

McCaffer: 2000) and integrating (Ogunlana *et al*: 2002). Project managers must keep in mind at all times that they control processes, not people; people are managed and people control processes (Laszlo: 1999).

Communication is an essential project manager skill. As such, a key role for the project manager is to clearly communicate on a regular basis the project goals to the team members and to ensure that there is no misunderstanding of the roles and responsibilities within the team (Brunetto and Farr-Wharton: 2003). However, project managers tend to put more effort into task-related activities, while owners/clients often require more effort in liaison and communication activities (Bryde: 1997).

As highlighted by Lessem (1996: 6), Ozaki the Japanese-American economist and author of *Human Capitalism: The Japanese Enterprise System as World Model* argued that "the new paradigm-manager is by definition transcultural in his or her approach to developing self-mastery within him or herself". Table 2.2 highlights that it would take a chameleon to not only adapt to differing cultures but also to shifts over time within individual cultures.

Crawford (2005: 7) cited Toney (1997) who believed that "the key to project success is to pick the right project manager" and listed the following five competency characteristics for project managers as defined by Spencer and Spencer (1993):

1. knowledge;
2. skill;
3. motives;
4. traits; and
5. self-concept.

Table 2.2: The evolution of management (adapted)

Source: Lessem (1996)

	Old Paradigms			New Global Paradigm
	Northern	**Western**	**Eastern**	
Individual manager	Effective management	Entrepreneurial management	Total quality management	Self-mastery
Social group	Effective teamwork	Shared valued	Quality circles	Social synergy
Organization as a whole	Hierarchical organization	Networked organization	Lean organization	Organizational learning
Economy and society	Corporate responsibility	Free enterprise	Human capitalism	Sustainable development

Project manager competencies and traits

A study by Edum-Fotwe and McCaffer (2000: 124) established the "changing role of project managers and how, increasingly, they are required to perform roles outside the traditional scope of project management". This traditional scope of responsibilities is related to time, cost and procurement and not related to what might be considered general management areas of concern associated with strategy, project definition, project integration and communication (Crawford: 2005). The modern project manager needs to be at the forefront of all these issues so it is essential that they are confident characters with well-rounded knowledge and skills, which can be immediately demonstrated to the project team as credibility is absolute (Hawkins and Rajagopal: 2005).

It is important for project managers to have both *hard* and *soft* skills from control of project costs, schedule and scope through to fostering relationships (Hawkins and Rajagopal: 2005). *Soft* skills are concerned with human behaviour in organizations and require a basic intellect, an ability to see more than one point of view, to think logically, to advocate and to communicate become more important than applying scientific methods (Daniel: 1990). A

critical *soft* skill is the ability to negotiate particularly for the following issues (Edum-Fotwe and McCaffer: 2000):

- scope, cost and schedule objectives;
- changes to scope, cost, or schedule;
- contract terms and conditions; and
- resource availability and utilisation.

Ogunlana *et al* (2002) referred to Goodwin (1993) who considered that the responsibility of project integration requires the project manager to perform the following three key tasks:

1. to implement an affective planning and control system for all the project activities;
2. establish and maintain all communication links within and outside the project; and
3. to act quickly to resolve internal and external conflicts before they start to threaten project budget, scheduling, and performance specification.

Project management techniques

Project managers have numerous project management standards and techniques at their disposal to do their duties such as BS 6079-1: 2002 Part 1 and the fifth edition of the APM PMBOK (2006). However, the first (Guide to the) PMBOK was by the US-based Project Management Institute ("**PMI**") in 1976, which was finally published in 1983 (Morris *et al*: 2006).

The focus on project management techniques, particularly critical path analysis, is reflected in much of the literature and major books on the subject (Turner: 1994), yet in spite of the many advanced techniques, many construction projects are still subject to large cost overruns and delays. The engineering background of many project managers has meant that they instinctively adopt *hard* skill numerical approaches to solving problems even when problems do not respond to such advances. Even in the nineties,

project managers were behaving as though *soft* skill approaches had only recently been discovered although they had been around for many years.

Hales (2008b) argued that *soft* skills such as project management leadership cannot be taught. Training involves what needs to be done but not the subtleties of how to do it. A process adopted by Hales for UK consultancy, Team Animation, inspiring leadership in project management involved project management stakeholders in organizations to identify their best project managers and what makes them the best. The 'how' qualities of trust, respect, commitment and passion dominated the findings.

Politics

Successful project management requires project managers and other key project team members to understand the importance of organizational politics and how to make them work for project success. The following lists some of the steps that project managers can take to become politically astute for effective project implementation (Pinto: 2000):

- understand and acknowledge the political nature of most organizations;
- learn to cultivate 'appropriate' political tactics;
- understand and accept 'What's In It For Me?';
- try to level the playing field;
- learn the fine art of influencing;
- develop your negotiating skills; and
- recognize that conflict is a natural side effect of project management.

Human resources

A project manager must be able to organize human resources and not only technologies (Pilcher: 1992), time, cost and quality control (Pheng and Leong: 2000).

Toor and Ofori (2008: 627) believed that "within a fast changing construction industry, there is mounting pressure on project managers to do more with fewer people and less resources. Under such circumstances, the people-side of project management, or what many would call leadership, is paramount to the successful delivery of desired results".

2.3.7 <u>Leadership</u>

Leadership

Martin (1995: 215) stated that "good management can be said to have five main roles - to Listen, to Encourage, to Advise and to Delegate. The fifth, and by far the most important, role is made up of the initial letters of the first four - to L E A D. Management is all about leadership. As the head of Hewlett Packard Europe said…*you manage processes, but you lead human beings*".

Dickson *et al* (2003) considered there is no consistently agreed upon definition of leadership. However, in simple terms, a leader does not need to be a Genghis Khan or a Leonardo da Vinci or a genius; but a hard worker who is conscientious (Drucker: 1994). Successful organizations have dynamic and effective leadership (Hersey *et al*: 2007). It is essential that leaders need to be strong and willing to make difficult choices (Porter: 1996), prepared to delegate authority and responsibility (Hawkins and Rajagopal: 2005) and armed with a style which meets the demands of any given situation (Ogunlana *et al*: 2002).

Project management needs leadership skills in order to do a project (Hyväri: 2006). Pheng and Chuvessiriporn (1997: 139) considered that "the leadership qualities of a project manager are critical for the success of a project" and "construction project management can be more affective if the project manager continuously hones his managerial skills and leadership capabilities". Project leadership on its own is only part of the story as it is the team that generates the effort, ideas and enthusiasm that drives a project forward (Hawkins and Rajagopal: 2005). The construction industry requires

team efforts where project managers need to be project leaders to have a positive impact on the performance of construction work. A study by Odusami *et al* (2003) has shown that leadership is an important factor in successful project execution where the project leader manages the whole construction development process from inception to completion to meet the owners/client's objectives.

Project manager leadership

Lee (2009) argued that project managers are often required to be both managers and leaders. Indeed, research has shown that successful project managers have firstly leadership skills, secondly conceptual and organizational skills and thirdly domain knowledge (MPA: 2006d, 2). Key conclusions from a seminar by the MPA (2006d) on the topic of management styles and leadership included the following:

- leaders must clearly communicate and live the values they wish their teams to uphold;

- there is not one best style of leadership;

- leadership style may have to change during the life of a project: good leaders know when to change their style to suit the circumstances;

- true leadership is transformational, not transactional (that's management);

- consider getting personal support from skilled coaches. If you do: engage your boss; include your team; aim for you and your team to become self-sufficient in self-help/co coaching;

- good leaders are skilled in coaching their teams themselves;

- joint customer/supplier leadership can be very successful. It requires a 'baggage dumping' phase as the relationship passes from 'negotiation' to 'collaboration'. Stakeholders on both sides must commit to putting the project first;

- convince stakeholders to value leadership of a project (rather than management); and

- project leadership differs from business leadership (different focus,

time scales, issues, stakeholders).

2.4   ENVIRONMENT

2.4.1 <u>Introduction</u>

The origins of construction projects evolved from the Middle Ages and examples of changing environments in the UK date back to the 16th century when project owners/clients used to directly procure the materials for their projects, through to the more extreme environmental forces experienced during and after the Industrial Revolution in the UK. Walker (1996: 17) has stated that "it may seem surprising that project organisations have been able to design and construct projects reasonably successfully for hundreds of years and particularly so in the more unstable environment of this century".

Projects, organizations, people and contracts do not exist in a vacuum; they are embedded in a variety of industrial, social, legal and other contexts that determine what is possible and, often, what is desirable (Lenard and Bajaj: 1999).

2.4.2 <u>External Environment</u>

Many construction projects overrun because of circumstances external to the project – whether price escalation, government action, strikes, corporate decisions, or acts of God (Morris and Hough: 1993). Construction organizations operate within such an external environment and not a vacuum and are inevitably influenced by and constantly interacting with their environment (Baloi and Price: 2003) with the global and boundary less nature of the economic environment becoming more prevalent with time.

The efficiency and effectiveness of the construction industry largely depends upon how project managers scan the external environment and identify the critical factors and adapt their organizations accordingly (Baloi and Price: 2003). On megaprojects the risks are so high that they must be reviewed on

a regular basis and viewed as many shorter stages or individual battles rather than one long challenge (Hawkins and Rajagopal: 2005). Project manager skills and the ability to relate to their external environment and the people around them, will ensure project success (Johnson and Scholes: 1993).

It has been established that construction is an uncertain and unique industry, where the demand for the skills of contracting companies fluctuates with the national economy and owner/clients' needs (Cheetham: 1998). The assumptions in any financial projections for future workload of an organization must strive to consider the external environment, mission, and core competencies so that the assumptions fit reality and are not pure fantasy because the volume of new orders for construction work is dependent on the wider economy and on the choices available to the industry's owners/clients (Druker and White: 1996).

2.4.3 Internal Environment

Construction industry companies need to create the right internal environment where project teams can motivate themselves for project success (Dixon: 1989), but internal environments are every bit as complex as external environments (Langford *et al*: 1995) where the size and complexity of a construction project may require a sophisticated method to describe the environment (Hughes: 1989) from a holistic management perspective.

2.4.4 Globalization

"Globalization is the way of the world. There is no turning back, no sensible alternative. Look at Burma" (Phongpaichit and Baker: 1998, 324). The global nature of big business means that large companies looking to increase their field of operations can no longer survive in splendid isolation because everyone is part of the same complex, increasingly interlinked world (Kets de Vries: 1999). In addition, the nature of global politics and economics can introduce overnight changes that can throw many megaprojects into disarray

(Hawkins and Rajagopal: 2005), where in the globalised capital markets, disturbances in one region can affect countries around the world (Stiglitz: 1997). In such a borderless world, money and information no longer know borders (Drucker and Nakauchi: 1997). Indeed, the market disciplines the government, not the other way around. No government in today's borderless world can claim that the financial market is under their control. A real-time lesson that has been learnt by Asia in the late nineties and more recently by the global economy in 2008 when the world was impacted by a credit crunch with its origins in the US. Everything is connected in the modern global world where each element interacts with all the others, which in turn requires organizations and project managers to have a more holistic perspective on the big picture (Hawkins and Rajagopal: 2005).

The world economy is heavily influenced by large companies operating on a transnational basis who can transfer resources between countries (Lavender: 1996). Like many other industries, the construction industry is on a path towards globalization and needs to take a more global approach, where their project managers on PBIJV megaprojects need to be global managers with an awareness and understanding of national cultural issues being essential to their project success (Hall and Jaggar: 1998) and having the following attributes (Taylor: 1991):

- exceptionally open minds;
- respect how different countries do things and have the imagination to appreciate why they do them that way;
- push the limits of the culture;
- sort through the debris of cultural excuses and find opportunities to innovate;
- generous and patient; and
- handle the frustrations of language barriers.

Other key project team members must also be culturally aware and a global mind-set needs to be instilled at all levels of an organization whereby they

change how they think and act (Kets de Vries: 1999). Such awareness can be assisted by global companies who build a transnational top management in which people of different nationalities, with their different backgrounds and experiences, work together as a team (Drucker and Nakauchi: 1997). The construction industry can benefit in terms of efficiency effectiveness from such globalization in many ways such as through the globalization of construction education in the spirit of information sharing and co-development of common standards (Li and Yang: 1998).

2.5   SUMMARY

An analysis of the literature review of the UK construction industry, organisations, management and leadership, and the environment was done to find the key dimensions at play as shown in Appendices A.2 to A.7. Further analysis was done to group these key dimensions within both Chapter Two literature review categories. These key dimensions for construction are summarised in Table 2.3 and key dimensions required for process success in construction are shown in Table 2.4. Further analysis is in Chapter Seven.

This part of the literature review concludes that project managers need to manage and lead project teams, recognise the importance of the people in the teams, positively encourage team integration with total communication on projects and have a full range of *hard* and *soft* skills with a holistic management style in the decision-making process to achieve construction project success always mindful of internal and external environments in an ever increasing global workplace.

Table 2.3: Key Dimensions Matrix for construction

Items		Literature Review Categories	
		Organisations, Management & Leadership	Environment
Key dimensions required	Accepting	√	
	Adaptive	√	
	Awareness	√	√
	Clear and understanding	√	√
	Collaborative	√	√
	Dynamic	√	
	Flexible	√	√
	Holistic	√	
	Recruitment savvy	√	
	Simple	√	√
	Structured	√	
	Systems orientated	√	√
	Trained	√	

Table 2.4: Key Dimensions Matrix for project success in construction

Items		Literature Review Categories	
		Construction Industry	Organisations, Management & Leadership
Key dimension of project success	Awareness		√
	Clear and understanding	√	√
	Collaborative	√	√
	Committed	√	
	Decisive		√
	Flexible		√
	Recruitment savvy	√	
	Righteous	√	
	Simple	√	
	Structured	√	
	Trained		√

CHAPTER THREE – THE ASIAN WAY

3.1 INTRODUCTION

Chapter Two considered the importance of project managers managing and leading project teams and to positively encourage project team integration with total communication on projects and to have a full range of *hard* and *soft* skills. It also highlighted the importance of project manager *hard* and *soft* skills. This chapter reviews literature about Asian ways and culture with particular emphasis on South Korea as part of the Confucian Asia cluster of countries and Thailand as a part of the Southern Asia cluster with the objective of representing Asia as these two Asian clusters are considered by *GLOBE* representative of Asia. Asia has over 50% of the world's population, is a tremendously diverse region comprising of all world religions and a host of cultures, and along with Europe and America is the world's economic engine. However, Asia is unlike the West and has fundamentally different ways of working, which can seem very strange, unusual and not really proper to Westerners. This review focuses on the people, religion, organization, management, cultural differences, ethics and corruption in Asia. The influence of China and in particular that of the OC network on Asian ways insofar as it relates to business, politics, family, *face*, confrontation, networks and trust is also reviewed. These reviews are all with the objective to explore Asian ways and culture, approach to organization, management and decision-making processes so that Westerners can better understand differing ways to approach management as a lead partner on a PBIJV in Asia. Once again of particular importance in this research is the role of the project manager and the attributes required to both manage and lead project teams equipped with an understanding of cultural differences at play. The exploration shows that project managers require a flexible way of management thinking as a lead on a PBIJV project in Asia and to fully recognize there is no one way of working to achieve project success.

3.2 THE ASIAN WAY

3.2.1 <u>Introduction</u>

During the sixties and seventies the people of East and Southeast Asia lived through the longest period of rapidly rising economic growth ever experienced in human history (Pye: 1985) and such growth continued through to the mid-nineties creating bubbles in the real estate market in major cities of East Asia (Quigley: 1999). In May 1997, the Thai Baht currency came under speculative attack and by 2 July 1997 the Baht was floated and immediately tumbled in value announcing the start of a financial crisis in Asia (Pheng and Hua: 2001), which had a devastating impact on the economies of Thailand and South Korea (Kim: 2001). One of the reasons for this crisis was the real estate bubble created by the rapid economic growth in the Asian economies and the human propensity for greed.

The crisis involved the West because much of the easy credit available to Asian property developers came from the West. Western corporate predators and currency raiders such as George Soros, arguably the main culprit of the Asian financial crisis of the late nineties, thrived on such easy prey (Wee and Lan: 1999) and became a symbol in Asia of the predatory West buying Asia on the cheap and selling for a huge profit a few years later. Not a good platform for future trust between Asian and Western partners. Indeed, for Soros this was *déjà-vu* as a previous currency raid in South America resulted in Soros becoming the largest landowner in Argentina. As there is no one Western way there is no one Asian way and in the age of globalization there is just a right way and a wrong way, and this particular way leading to the Asian financial crisis was the wrong way (Backman: 1999).

3.2.2 <u>Asia</u>

Asia

An article by Hazelton (1999) about the aftermath of the Asian financial crisis of the late nineties stated that Asia is a tremendously diverse region and has

all world religions and a host of cultures and along with Europe and America, is the world's economic engine. Asia is vast and full of energy (Peters: 1994) and has over 50% of the world's population (Raftery *et al*: 1998). However, Asia is unlike the West and has fundamentally different ways of working, which can seem very strange, unusual and not really proper to Westerners, nonetheless there needs to be an understanding by Westerners that things can be done in different ways (Kets de Vries: 1999). Asian businesses have a strong commitment to their staff, suppliers and customers (Davis and Schulte: 1997) and are team orientated with a preference for consensus over creativity and gradual rather than radical change. Despite such an emphasis on cooperation and teamwork, culture dictates that open criticism is discouraged where open confrontation and losing *face* are taboos (Hammer: 1996).

Doing business in Asia usually depends on informal understandings and, in order of importance, personalities, patrimonial largesse, corporate identity and expertise (Clad: 1989) and involves a complex set of relationships – with competitors, suppliers, customers, employees, partners, officials, society in general – which can be hard to disentangle (Davis and Schulte: 1997).

A popular mode to do big business in Asia is through conglomerates, which follow a fairly standard recipe in Asia. First take a bank, add some trading and manufacturing interests and have real estate holdings, then arrange to form a loose structure where a lot of internal transactions can take place, and most importantly put the lot under the control of one family. The family approach of these conglomerates promote the mutual dependence of their staff and staff expect their employer to look after them as a parent would a child where the culture of harmony, dependence, and community is the Asian Way (Backman: 1999) rather than the Western Way of independence with little sharing of ideas and information (Mortiboys and Oakland: 1991). These Asian employees trust each other (Stockdale: 1997) and work in an

organizational environment where a similar future is shared (Stockdale: 1998b).

However, these conglomerates can be far too big, too unfocused, too poorly managed and seemingly very unstructured, lacking transparency, and devoid of internal checks and accountability (Backman: 1999).

Differences between Asia and the West

Many believe that there is no diversity, only unity, among the teachings of the East and West and the differences are only in the wrapping, not in the essence (Chu: 1994). However, differences there are, plus whilst there are many underlying similarities between Asian cultures, their approaches to matters such as business are by no means the same and the overall assumption that Asian countries exhibit a standard pattern in contrast to Western societies is unwarranted (Cray and Mallory: 1998). Business approaches applied by Western companies are not uniform and some even have the similar approaches to business and management as applied in Asia. For example, Richard Branson admires the commitment of the Japanese to the long-term through building up a business through organic growth and not by acquisitions. Moreover, the structure of Virgin is similar to the Japanese *keiretsu* system with more than 500 small companies around the world operating quasi-independently (Kets de Vries: 1999).

Martínez-Lorente *et al* (1998) argued that the differences in Japanese and Western views may relate to differences in culture, politics and company philosophy. A fundamental typical difference between companies in Asia and the West is the basic strategic approach to business. Western businesses proceed with strategic leaps based on detailed road-maps whereas the Japanese proceed on an incremental basis as typified by the TQM approach based on strategic compasses giving a sense of overall direction (Hayes: 1985). However, the consensus based team approach can lead to prolonged durations for decision-making (Backman: 1999).

The fundamental typical difference between individuals in Asia and the West is the manner with which they conduct themselves in the business environment. The Asian way is more team orientated and the Western way is more self-important showing how good you are. In the East this type of ego is considered to be a human's worst enemy whereas in the West it is accredited with all the achievements of mankind so much so that the Westerner nurtures it whilst the Easterner fights against it (Chu: 1994). For example, Japanese businessmen appear humble and rarely offer their opinions in part avoiding confrontation but also projecting the impression they are learning from their counterparts (Wee and Lan: 1999), which is far from the actual situation.

Face

Swierczek (1994) defined *face* as a measure of social value without which a person cannot function in society and is also indicative of how a person fits into that society, a demonstration of being civilized, where having *face* means having high status and prestige in the eyes of one's peers, and it is a mark of personal dignity (Woo and Prud'homme: 1999). *Face* in Asia is particularly important in Japan and Thailand (Davis and Schulte: 1997).

On a macro level in China the government is extremely sensitive to loss of *face* (Davis and Schulte: 1997) and on a micro level much can be gained in China by helping the Chinese to win *face* (Woo and Prud'homme: 1999) because Chinese businessmen are generally very *face* conscious (Wee and Lan: 1999) where putting such a businessman in an embarrassing situation, however innocently, is a big risk factor in Chinese societies (Haley *et al*: 1999).

Confrontation

East Asians, including the Chinese, avoid confrontation and are more likely to tell a lie rather than cause anyone to lose *face* (Triandis: 1995) because the Chinese dislike being pressed to make commitments openly which could

result in public confrontation leading to embarrassment and to strip off their *face* (Wong *et al*: 1998). For an example in the extreme, prior to the Asian financial crisis of the late nineties, the Central Banks of Thailand's officers had "not reported the true state of affairs 6 months earlier to the government and public because the officers would have lost *face*. When the ministry's call for confirmation of foreign currency holdings arrived, the Central Bank's officers could not bear to lose *face* by admitting their losses, and simply refused to respond. When the new finance minister came and inspected the books personally, the game was up" (Haley *et al*: 1999: 18).

Saying no is often avoided like the plague by Asians as its use can lead to confrontation and is certainly not part of the Japanese way of doing business (Pirsig: 1999). So important is the avoidance of confrontation by Asians and in particular avoiding direct questions from Westerners with the expectation of a definitive yes or no answer that the Japanese have a third possible term equal to yes and no which is *mu* (Chu: 1994). Other Asian nations have their own ways of avoiding the yes or no question such as the virtually meaningless yet polite use of the word *krap* in Thailand.

Politics and Business

Most Asians are trained unconsciously from a very young age about the importance of attaining a position of advantage in business matters and "when they spend a penny, they expect a penny or more in return" (Chu: 1994, 233). Business success in Asia in the long-term relies on three factors: stable politics, a vibrant world economy and, most of all, pass-it-around patrimonial habits (Clad: 1989). Business and politics are intertwined, particularly in Asia. However, the integrity of the nexus of business and politics in Asia is questionable where political integrity is considered as an oxymoron (Bhikkhu: 1999).

3.2.3 <u>Republic of Korea</u>

The country and people

In the autumn of 1948 two separate states were formed out of Korea. One of these states, the Republic of Korea (more commonly known as South Korea), the capital of which is Seoul, accounts for one half of the national population (Douglass: 2001) and by 2009 had created the world's twelfth largest economy and despite having a virtually closed economy and zero-sum attitude to trade is considered as one of the Four Dragons of Asia along with Singapore, Hong Kong and Taiwan, all of which are in the *GLOBE's* Confucian Asia cluster. South Korea's population is the fifth most densely populated country in the world habitated by people who, according to Breen (2004) are predatory, nationalistic and xenophobic. As even reported in an article in Korea by Kim (2009a), prejudice to foreigners is still occasionally visible.

Korea is considered by Koreans to be one of the world's oldest nations and as such Koreans are a very proud, complex and distinct people, with a tradition, language and identity of their own and are not easy to understand. Traditional Korea is xenophobic with a great pride in its history. Indeed, Korea's isolationist policy of the five century long Joseon Dynasty, which ended in 1910, led to Korea being given the Western nickname of the Hermit Kingdom in the 1800s. Despite on and off occupations of Korea and not achieving virtual independence and freedom until after the Second World War, Koreans maintain this isolationistic mentality and are taught such nationalistic thoughts such as Korean people have kept their blood pure by not marrying foreigners (Breen: 2004).

The isolationistic and protectionist trait of Korea was sorely tested during the Asian financial crisis of the late nineties as the IMF's intervention resulted in Korea being forced to open up their markets to foreign investors as a condition of the IMF loan, which effectively made many distressed Korean companies easy targets for foreign takeovers and buy-outs (Wee and Lan:

1999). Such isolationistic and protectionist policies are similar to those of Japan, however, such policies are not the same throughout Asia. For example, Singapore's open-door policy forced local contractors to upgrade their ways of working, which eventually enabled them to compete with their foreign contractor counterparts in overseas markets (Pheng and Tan: 1996). In Thailand, many Thais saw such visions of globalization as an opportunity and a prominent political scientist and public intellectual since the seventies, Samudavanija, coined the word *lokanuwat* (meaning 'turning with the world') to translate globalization, which The Royal Institute later proposed to change to *lokapiwat* (meaning 'extending across the world') (Phongpaichit and Baker: 1998).

In the early noughties, an article by Kim (2007), a professor of English at Seoul National University and president of the American Studies Association of Korea, in *The Korea Herald*, highlighted that a Korean daily newspaper, *the Kyunghyang Shinmum* disclosed the results of a recent poll called, "Important Factors for Being Successful in Korea". The result of this poll, which was considered to reflect Korean society, was in order of importance the following:

1. prestige of one's college;
2. connections – politics;
3. wealth;
4. family background;
5. good looking face; and
6. bluffing and sugar-coating skills.

In response to this poll, Kim (2007) highlighted that just under two per cent of those polled considered 'honesty' as an important factor for being successful in Korea. Kim continued by highlighting that nowhere can one find 'capability', 'competence' or 'dedication' worthy of mention as one of the primary factors for a successful life. Kim concluded by arguing that (i) in this global age, Koreans need to alter their consciousness and shed off their old, stiff skin in

exchange for a newer, more flexible one: and (ii) Korean society needs to radically change to meet global standards of judgment, otherwise Korea will forever be stuck in a backward, prejudiced system.

In a survey by Kang (2009) of Koreans living in Korea, it was discovered that more than half considered the nation to be an advanced country. However, in the 2009 National Advancement Index ("**NAI**") ranking of 40 nations, comprising of 30 member states of the Organization for Economic Cooperation and Development ("**OECD**") and ten non-OECD countries, Korea ranked twenty-ninth overall and thirty-third in terms of globalization. In this 2009 NAI, Nordic Europe was top of the charts with Europe taking the top nine spots, the US placed seventeenth and Japan ranked twenty first (Kang: 2009).

The Korean government is concerned with developing a high globalization ranking. As reported by Na (2009) in *The Korea Times*, the Korean government set up the Presidential Council on Nation Branding in January 2009 and announced a roadmap to raise Korea's international status. As well as the NAI there is the Anholt-GfK Roper Nation Brands Index ("**NBI**"), which has been used by governments worldwide in their efforts to improve the global reputations of their countries and cities. The NBI, released in October 2009, showed Korea ranked thirty-first among 50 surveyed nations with China ranked twenty-second and Thailand thirty-third. The top-five nations in the 2009 NBI in order of ranking were US, France, Germany, UK and Japan.

However, the leading Korean *chaebols* such as Samsung, LG and Hyundai, have a better global reputation than their country. As reported by Kim (2009b) in *The Korea Times*, Korea as a brand is increasingly coming off as old and crusty. Whereas, Samsung and Hyundai are becoming premium global brands. For example, Samsung Electronics became the first Korean company to enter the top-20 on *Business Week* and *Interbrand's* annual ranking of the 'Best Global Brands'.

Confrontation

In tune with other Asian cultures, Koreans often feel the need to keep quiet, rather than openly offer suggestions and speak out (Breen: 2004), which often makes life difficult for Westerners particularly in a business and partnership environment. Such a desire to avoid any hint of conflict in business relationships and maintain a strong cultural tradition that stresses harmony has to some extent mellowed in certain quarters after the financial crisis of the nineties, insofar as Korean managers have become more accustomed to and more tolerant of conflict in their business relations (Bstieler and Hemmert: 2008). Also, many Koreans are at times neither restrained nor mannered but seek through self-cultivation to change both themselves and their society.

Religion

South Korea has not been conditioned by a single, exclusive faith and is a multi-religious society with just under a third of the population being Buddhist, a quarter Christian and other religions such as Shamanism and Confucianism. Although a quarter of the country are Christians, Koreans as Confucians display an instinct for harmonious relationships with people as opposed to the Christian and law-based culture of the West which is more concerned with issues of right and wrong and good and evil. The influences of Shamanism are apparent with its holistic and tolerant beliefs influenced by Buddhism and Taoism (Breen: 2004).

Business

Business in South Korea can be full of bureaucratic red tape and cumbersome procedures and is the reason for it being difficult to do business in Korea (Kim: 2001). As already highlighted, Koreans are the most individualistic of all East Asians and as well as this particular deviation from the Asian norm, Koreans can be surprisingly aggressive, as opposed to being assertive, in their business dealings. Indeed, Westerners have lost out in

business in Korea because of a failure to be aware of this Korean, rather than Asian, trait and subsequent failures have been due to not being aggressive enough rather than not being polite enough (Breen: 2004).

Some of Japan's major companies began centuries ago as family companies that evolved through growth into the Japanese *zaibatsu* conglomerates (Haley *et al*: 1999). Like, the Japanese after the Second World War the Koreans, from a position of economic weakness and perceived poor quality, took less than 30 years to build up their own conglomerates based upon the strategy employed by Japan. All of this took place over three decades when Korea's economy grew by an average of almost nine per cent a year, from $2.3 billion in 1962 to $442 billion in 1997 and resulted in Korean *chaebols* with global brands like Hyundai and Samsung (Wee and Lan: 1999). Although Korea is a relatively small country it has several very large companies, such as Hyundai and Samsung, and by 2004 there were 11 Korean companies in the list of the world's largest 500 (Rugman and Oh: 2008). The main feature of the *chaebol* is the concentration of ownership by the chairman, his family, and by subsidiary companies, where anyone from the outside of the family receives an extremely low level of trust (Breen: 2004).

Like Japanese *zaibatsus*, Korean *chaebols* are not among the most profitable companies in the world as unlike Western companies they pursue market share over profitability. However, paying too much attention to market share alone led to the failure of many of these large companies in the mid-nineties (Wee and Lan: 1999) and after the start of the Asian financial crisis in 1997 even a well-established *chaebol* like Hanbol Steel collapsed in early 1998 with US$6 billion in debts (Ang *et al*: 2000). After this financial crisis, based upon IMF dictates the Korean government banned the group affiliated behaviour of *chaebols* and several Korean *chaebols* went bankrupt or were divided into legally independent firms. However, the surviving business groups stayed largely intact and solid and in essence operated in the same

way but under a different guise (Chang: 2006). Such disregard resulted in continued poor business practices such as striving to maximize turnover rather than profitability. For example, in the Korean construction industry in 2008, in terms of turnover, Daewoo E&C was the number one contractor and part of the Daewoo *chaebol*, which in 1999 was 57 trillion Korean Won in debt, more than the external debt of Malaysia (Breen: 2004) and in 2010 was still in a cash-strapped position as part of the Kumho Asiana Group.

Before the Asian financial crisis of the late nineties the protectionist nature of Korea meant it was one of the least open economies with respect to foreign direct investment ("**FDI**"). One important change to the construction and property market in Korea within a year of the start of this financial crisis was the opening of property markets to foreigners in June 1998 (Kim: 2001) due in part to IMF requirements attached to a loan provided to Korea in 1997. However, the heavy restrictions against foreign contractors are still in place and the only real entry to the construction sector is through PBIJVs.

Organizations and management

Korea has a top-down management style and though similar to the American style it is conversely the exact opposite of the highly formal American approach as opposed to the not always so seemingly competent approach in Korea. As such, Koreans often appear to Westerners as incompetent and unstructured. Conversely, Koreans find it irksome that Westerners insist on writing everything down and prefer to discuss repeatedly over a topic without follow-up minutes, and yet they personally achieve positive results through their own hard work and their personal network, as personal relations take precedence over competence (Breen: 2004). Also, Koreans consider that their decision-making prowess in business is fast through hard work and long hours and is faster than in the UK (Kang *et al*: 2006). Breen (2004) argued that the Korean bureaucratic system displays real weakness in this regard and once a decision has been made and agreed upon in writing, the same

decisions remain negotiable long after 'agreement' has been made. However, such an approach whilst ambiguous is nonetheless flexible.

In the introduction to the *Journal of World Business* special issue by Paik and Lee (2008) about the effectiveness and management practices of Korean companies, it was stated that "much of what we know about Korean companies has mainly focused on their corporate and business strategies. Less is known about managers in Korea and the specific issues they face in the workplace both at home and abroad such as top management promotion, employee adjustment, and satisfaction after a cross-border M&As".

One of the perceived fundamentals of Asian business is the lifetime employment approach of large companies in Asia as shown in Table 6.1, which influences the manner in which managers approach their work. However, in a study by Magoshi and Chang (2009), managers of four major Korean companies were interviewed in which they all pointed out the drastic changes that have taken place in Korean society since the Asian financial crisis of the late nineties. These managers consider their working environment as highly competitive, causing excessive strain and stress among employees. This has resulted in retirements as early as a manager's mid-40s such as at Samsung Electronics. This is not quite the so-called lifetime employment system as practiced, which is having employment secured until the age of 60 rather than the 'hire and fire' mentality of American companies (Pudelko: 2009). Magoshi and Chang (2009) believed that in Japan, such lifetime employment provided a sense of security to employees and contrasts with the excessively competitive workplace environment in Korea.

In comparing Korea with Asia and benchmarking management best practice, namely with that of the second largest economy of Japan, Paik and Sohn (1998) argued that Korean management systems have many distinct features in comparison to Japanese ones. Chapter Four will highlight the importance

of TQM in Japanese management practices. Pudelko (2006) highlighted that the Japanese management model is deeply embedded in and influenced by cultural, socio-political and economic contexts. However, also according to Pudelko (2009), Japanese managers considered that their own management system is in crisis and needs to change and argued this management style is "not well suited to the current globalised, dynamic and unstable business environment, which is characterized by disruptive, non-linear processes".

3.3 ASIAN CULTURE

3.3.1 Introduction

One of the reasons often given for the relatively low level of Western investment in the Asia Pacific region, compared with that of Japan, is the cultural divide between Asia and the West (Davis and Schulte: 1997). However, culture can be a subtle and complex process. Hall and Jaggar (1998: 4) cited Williams (1976) statement that "*culture* is one of the two or three most complicated words in the English language". There are many definitions of culture. In terms of a country culture, Hofstede (1980: 43) defined culture as:

> *the collective mental programming of people in an environment. Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience. When we speak of the culture of a group, a tribe, a geographic region, a national minority, or a nation, culture refers to the collective mental programming that these people have in common; the programming that is different from that of other groups, tribes, regions, minorities or majorities, or nations.*

A good awareness and understanding of cultural issues is essential to project success (Hall and Jaggar: 1998) as culture is often a source of conflict. Cultural differences are a nuisance at best and often a disaster (Hofstede:

2009) but need to be taken as a positive not a negative and the ability to systematically positively use these differences can lead to success in international projects (Schneider: 1995).

3.3.2 Asia

Hofstede (1984) identified the following four basic dimensions of culture:
1. power distance;
2. individualism-collectivism;
3. uncertainty avoidance; and
4. masculinity-femininity.

Swierczek (1994) noted that Hofstede and Bond (1988) added Asian Confucian dynamism to the original four dimensions of culture, long-term orientation, which emphasized the importance of:
- persistence;
- ordering relationships on the basis of status;
- thrift; and
- a sense of shame.

Asia's highest Hofstede dimension with a ranking of 80 is Long-term Orientation and lowest with a ranking of 20 is Individualism. South Korea's highest Hofstede dimension with a ranking of 85 is Uncertainty Avoidance and lowest with a ranking of 18 is Individualism. Whereas Thailand's highest Hofstede dimension with a ranking of 64 is for both Uncertainty Avoidance and Power Distance and lowest with a ranking of 20 is Individualism (Hofstede: 2009).

3.3.3 Republic of Korea

Korea is not a culture in which diversity is seen as a value or an ideal. Koreans see virtue in unity: one mind, one people, one system, one race, one path. Korean business culture is typified by the status of seniority of men

even though women office workers are often more capable because they are less inhibited by concerns with status (Breen: 2004).

Koreans devote themselves to family and ascribe to collective values and yet are probably the most individualistic of all East Asians (Breen: 2004), although not supported by the Hofstede rankings, and rely heavily on their network and social business activities. A fundamental culture of doing business in South Korea is gift giving and hospitality (Kang *et al*: 2006) amongst networks. These networks work on trust, although instant trust will rarely be achieved in any relationship when the other party is not well known (Bstieler and Hemmert: 2008). However, despite the Kim (2007) poll, honesty is certainly valued by Koreans to a certain extent, although not as highly as loyalty and in the event loss of *face* is possible honesty will become secondary especially if it involves admitting a mistake because that would be a weakness (Breen: 2004).

3.3.4 Construction Industry

Construction industry

It has been highlighted in this chapter that the economic growth in Asia since the sixties has been robust and the construction sector has been a pivotal ingredient in that growth demonstrating the following three trends since the late nineties (Raftery *et al*: 1998):

1. larger private sector participation in infrastructure projects;
2. increasing vertical integration in the packaging of construction projects; and
3. increased foreign participation in domestic construction.

The characteristics of the construction industry in the UK were highlighted in Chapter Two and similar characteristics are applicable to the Asian construction industry. Even in Japan, with their willingness for excellence and innovation, the construction industry is known as a 3D industry – dirty, dangerous and dull (Evans: 1998). However, the presence and market share

of the Japanese construction industry is bolstered throughout the Asian region by The Japan Bank for International Cooperation ("**JBIC**"), which is a Japanese public financial institution created in 1 October 1999. This bank is wholly owned by the Japanese government and operates in 18 countries with 21 offices and its main purpose is to promote economic cooperation between Japan and overseas countries but ensuring that any loans provided to do construction projects mean that Japanese contractors must be part of a PBIJV. Although, there are also many instances where Japanese investors' with FDI in Asia appoint Japanese contractors for reasons of ease of communication and a desire to reduce risk (Porter: 1990).

Differences in cultural dimensions

As with differences between Western and Asian business practices, PBIJV members will have different ethical standards and cultural backgrounds and as an example the differences in cultural dimensions the following is applicable in the case of Korean and British construction personnel, as based upon the Hofstede ranking system (Kang *et al*: 2006):

- differences in cultural dimensions between the UK and Korean engineering/construction industry are significant in all of the dimensions of culture referred to in Section 3.3.2;

- Koreans are less ethical in the power distance index and individualism, whereas the UK industry is less ethical in masculinity, uncertainty avoidance index and long-term orientation; and

- Koreans should improve their power distance index and individualism to work with the UK participants in the UK, if they do not want to cause any ethical or cultural conflicts.

Differences in construction industry culture include differing legal requirements and terminologies used within the industry, for example, similar to the traditional British clerk of works on local authority projects, in Korea the engagement of the services of an independent construction supervision company is required by law on each project to oversee issues such as safety

and quality on site, regardless of whether the project is public or private. This is a relatively new requirement in South Korea following the collapse of the Seongsu bridge in 1994 and Sampoong department store in 1995 resulting in the death of 32 and 501 people respectively (Wikipedia: 2010c and 2010d).

3.3.5 <u>Project Contracts</u>

Negotiation and contracts

It has been established in this chapter that Westerners need to, within reason, subscribe to the Asian concept that a relationship can be more important than the written word, namely a contract (Lee: 1996). For example, Japanese projects are effectively run with less attention to the formal contract conditions than to the spirit of it (Shammas-Toma *et al*: 1998) and a binding written contract is a relatively new concept in China because details can be worked out in the future because as a Chinese adage says, *there is room for discussion in everything*, and explains why the Chinese feel they should have the right to change the terms of the written contract after it has been signed (Wong *et al*: 1998).

Many Westerners conducting business in Asia have problems with ambiguous and flexible contracts but contractual flexibility to accord with current circumstances for mutual benefit according to Chinese culture (Haley *et al*: 1999) because when an event goes badly, family and friends are supposed to understand one another's difficulty and provide support through contract renegotiation (Lee: 1996). Indeed, the Chinese and Japanese view Western business practices as "rigid on agreements, overbearing, lacking in humaneness, ruggedly individualistic, insensitive, uncultured and sometimes crass" (Wong and Maher: 1998, 53). The Japanese will even include a clause in contracts which states that if, during the life of the contract, conditions changed in such a way that affected the ability of either party to comply with the terms, both parties would sit down and discuss in good faith if the two parties were having a major disagreement. This approach is virtually inconceivable to traditional Western business practice (Morita *et al*: 1986).

With such an approach signed contracts may often begin, rather than end, negotiations (Haley and Tan: 1996), which will result in quibbling over contract conditions between partners (Haley *et al*: 1999). The devil is always in the detail and as is the way of life in Asia will result in a negotiation process throughout the contract duration where real negotiations are often concluded long before any official gathering. The four principle parameters for any negotiation in Asia is location, agenda, timing and approach and the optimum grouping for any negotiation is three with one person to talk, one to listen and one to record discussions (Hawkins and Rajagopal: 2005). Negotiations are somewhat of a ritual at times as mutual good faith resolution between the parties is always anticipated as the avoidance of litigation is predominant in Asia (Pheng: 1996).

Conflict management

The Asian business style concentrates on avoidance of confrontation and conflict whereas the Western style is more confrontational. Western JV managers need to focus on a style of compromise and collaboration when faced with resolution of potential conflict situations. However, the avoidance of conflict is not only the domain of Asia (Swierczek: 1994).

Business attitudes of people from the West and East do differ during conflict negotiation. For example, the Thai style for problem resolution is more than likely centred around a friendly chat over a cup of tea in a hotel lobby or even at a traditional massage parlour, whereas the Western style is more likely to be a 'see you in court' attitude.

3.3.6 Ethics Management and Corruption

Ethics management

Ethical behaviour in the construction industry in the UK is a concern and matters such as extortion is possibly the biggest problem facing UK consultants and contractors (MPA: 2006a). Ethics in the construction industry

can be defined as "the moral standards which construction practitioners should observe in their professional conduct" (Kang *et al*: 2006, 86). However, Asian culture can influence the effectiveness of ethics management, where customs considered to be of fundamental and unquestioned importance in Asian culture may be considered totally unacceptable in Western culture (Chu: 1994). Cultural differences in ethical behaviour on PBIJVs can lead to unexpected project conflicts and great efforts are required for the project team to be trained to at least understand the cultural reasoning behind the ethical decision-making of foreign project partners. A typical example of such cultural differences is that of gift giving in business. In Asia gift giving is acceptable and considered important, whereas in the West gift giving can be considered as totally unacceptable in business (Kang *et al*: 2006).

3.4 OVERSEAS CHINESE INFLUENCES IN ASIA

3.4.1 <u>Introduction</u>

Even though in political terms China, Korea, and Japan are far apart, they share a common cultural tradition centred in China (Friedmann and Beguin: 1971) and as cited by Lee (1996: 65), a study by the *East Asia Analytical Unit* (1995) considered that ethnic Chinese had replaced Japan as Asia's prime source of capital and "in order to manage business operations effectively in the Asia Pacific region, it is imperative to understand the Chinese way to run business".

3.4.2 <u>China</u>

The country and people

China has over six thousand years of rich history, many territories, 74 dialects and 56 nationalities (Huang *et al*: 1994) and is a significant part of Asia with a land mass of nearly four million square miles and a population in excess of 1300 million. Such a rich history is exemplified by such examples as occurred during the Ming Dynasty, when the Star Fleet of the Chinese

Imperial Fleet set sail in 1421 and discovered America at a time when most still believed the world as flat. Throughout its 6000 year history China has never been a democracy (Wong and Maher: 1998), a form of governance which is religiously defended in the West.

Westerners frequently view the Chinese people as one homogeneous population but such a melting pot of differences equates to more than just one culture at play with such a diverse population of different religions, different sub-cultures and different ethnic groups (Haley *et al*: 1999). Despite these sub-cultures, Chinese people, for longer than any other group on earth, have shared a common culture. Such a common culture will continue to evolve, as the younger generation of Chinese is part of a more global world (Pang *et al*: 1998).

Organizations and management

Management

Whereas Japan has the ability to make a family out of the modern company, Chinese management has the ability to make the family into a modern company (Drucker and Nakauchi: 1997). The Chinese follow a paternalistic management style which is not based on quality, even to extent that Chinese managers and workers lack the concept of quality (Wang *et al*: 1998).

Since the Second World War, military concepts have gained certain levels of acceptance in the business environment and management generally (Lo *et al*: 1998), however, the use of military concepts in China are longstanding.

Sun Tzu and the Art of War

The first military text in the world was written by Tai Gong Wong who lived around 3100 years ago and *The Art of War* by Sun Tzu followed 600 years later based on his work and has had a profound influence throughout Chinese history (Griffith: 1971). Sun Tzu's work is considered to be a prime example of Taoist strategy, where the teachings of Sun Tzu reflected the

principle that "the true skill was to win without a fight" (Hawkins and Rajagopal: 2005, xvii).

Unlike the West, in Asia there is a holistic way to approach the world with no divisions between business, the art of war, philosophy, and spirituality (Chu: 1994). With such a holistic approach the philosophical teachings of Sun Tzu became part of, if not exactly the Asian way, but certainly the Chinese way. For example, the Chinese prefer to fight another day and have no problem in retreating whereas the Japanese believe death in combat is a great honour and will fight to death (Chu: 1994).

The teachings of Sun Tzu have been followed in China for centuries and in recent times by Mao Tse-tung who in his *Selected Works* stated that "we must not belittle the saying in the book of Sun Wu Tzu, the great military expert of ancient China, *Know your enemy and know yourself and you can fight a hundred battles without disaster*". The importance of these teachings in China manifests themselves in regard to management, leadership, teamwork, empowerment, environment, joint ventures, trust, information, communication and coordination (Griffith: 1971).

<u>The 36 Stratagems of the Chinese</u>

The *Thirty-Six Stratagems* of the Chinese have been attributed to Sun Tzu, however, he is not regarded as the true author by historians. Instead, the prevailing view is that the *Thirty-Six Stratagems* may have originated in both written and oral history, with many different versions compiled by different authors throughout Chinese history. Although the *Thirty-Six Stratagems* has a history of nearly 2000 years (Wee and Lan: 1999) it was not reprinted and published for the general public in Beijing until 1979 after a tattered book was discovered in Sichuan in 1941 entitled *The Secret Art of War, the Thirty-Six Stratagems* (Verstappen: 2004).

As with the *Art of War*, the *Thirty-Six Stratagems* have been used for military strategies but presented by a collection of proverbs used to illustrate military strategy and tactics even though originally also used for politics and civil interaction. These stratagems comprise of advantageous, opportunistic, offensive, confusion, deception and desperate stratagems. As well as the Chinese, Japanese and Koreans also apply the *Thirty-Six Stratagems* in business in the ceaseless pursuit of market share without due regard to profitability.

3.4.3 <u>Overseas Chinese</u>

People

During the nineties a new economic super-power has arisen for which there is no precedent, the Overseas Chinese ("**OC**") (Drucker and Nakauchi: 1997). Asia's OC are the most commercially successful minority group the world has ever seen and they are at the fore of what happens in Asia (Backman: 1999). The OC population in Southeast Asia is only at about ten per cent of the total population. Despite having only ten per cent of the population, the OC commands their local economies in countries dominated by other ethnic groups (Haley *et al*: 1999). The OC have a profound effect on economic development due to not only this significant economic standing but also political standing.

The origins of the OC are dominated by the merchant classes of the southern coastal regions of China, however, they are not formed from one people but from groups of diverse people who differ by regional/cultural and linguistic groupings consisting of the following eight primary groups (Haley *et al*: 1999):

- Cantonese;
- Fuzhou;
- Hainanese;
- Hakka;
- Henghua;
- Hokchia;

- Hokkien; and

- Teochiu.

There are dominant groups within the OC and one or two of the OC tend to dominate the OC populations of individual Southeast Asian countries as depicted in Table 3.10 (Haley *et al*: 1999), which highlights that the Hokkien and Teochiu people tend to dominate in most Southeast Asian countries.

Influence of the OC in Asian business and practices

As cited by Clad (1989: 257), McCloud (1986) commented that "South-East Asian economic systems tended to be controlled by resident Chinese often with close links to the political elite".

The founders of OC companies had little formal education and even less formal, Western-style business education and relied on basic family-based business practices which consisted of maintaining a significant portion of their capital liquid and to diversify with their investments. As soon as financial stability is achieved the OC tend to establish property-related businesses and despite building large companies, many senior OC businessmen stay hands-on in all aspects of their businesses. Such investment diversification by the OC means they do not generally focus on primary businesses resulting in extreme unrelated conglomerate diversification such as that of the richest person in Southeast Asia in 2008, a Hokkien OC, Robert Kuok Hok Nien, who has business interests in food, luxury and middle-market hotels, real estate, sugar and oil palm plantations and newspapers (Haley *et al*: 1999). Such conglomerates are a big part of Asian business practice with *chaebols* in Korea and *zaibatsus* in Japan. These OC companies, which pursued conglomerate diversification have the following core competencies:

- their decision-making styles;

- their control over information; and

- their networks.

Trusting, long-term friendship is important in Chinese business (Lee: 1996), where cultural influences greatly impact business activities between OC. For example, there has been a long-standing informal alliance between the two richest men in Malaysia and Indonesia, Robert Kuok and Liem Sioe Liong, based upon the fact that they are both Hokkien Chinese (Micklethwait and Wooldridge: 1996).

OC family businesses operate as centralized dictatorships where the head of each OC family makes nearly all the decisions and can result in speedy decision-making not only because of the centralized decision but also because deals can be based on a handshake (Micklethwait and Wooldridge: 1996). These OC family heads generally live frugal lives relative to their incomes and have high savings rates (Haley *et al*: 1999) and avoid publicity (Wee and Lan: 1999). The Japanese are similar, unlike the West where even weddings of the rich and famous generate media hype.

Speed and knowledge provide the OC with competitive advantages in their business dealings (Haley *et al*: 1999), however, most importantly to succeed in Asian business it is not the quality of service or product that is important but the importance of friends (Lasserre and Jocelyn: 1998) and the development of the right business connections (Wee and Lan: 1999).

Guanxi is a well-used Mandarin term and has no exact English translation but roughly translates to personal relationships or influential connections (Woo and Prud'homme: 1999), which includes a high degree of reliance on trust and the ability and knowledge of how to present uprightness to build relationships (Haley *et al*: 1999). *Guanxi* should not be associated with corruption or nepotism (Pang *et al*: 1998) and although its practice is widespread in China it is not prevalent throughout China and is generally less important in the more advanced economy and less bureaucratic southern regions than in the northern regions (Woo and Prud'homme: 1999).

3.4.4 **Business Culture**

Lobbying

To survive and thrive in Asia, businesses must forge good political connections (Backman: 1999) and lobbying is the practice of influencing the decisions made by government and the OC have perfected the art form of lobbying in the nexus between business and politics. Such OC lobbying efforts have proven enormously successful often building monopolies in strategic Southeast Asian industries and the OC have shown a great proficiency in creating and accumulating wealth when their governments permitted them to do so after OC lobbying for or against laws, regulations, and privileged positions. This type of OC lobbying in considered in the West as crony capitalism yet, it is not the exclusive domain of the OC in Asia and is also part of business in Japan and South Korea (Haley *et al*: 1999).

Decision-making

The rapid growth of many OC family businesses in Asia has been built upon their amazing speed of decision-making (Chu and MacMurray: 1993). Unlike their counterparts in Korea and Japan, OC managers with sufficient stature can make and implement decisions extremely quickly and as such have tremendous capabilities for radical action. Reasons for quick decision-making by the OC business community include their authoritative management style based on the knowledge of the family head and as such rarity for having long debates and committee meetings rarely occur (Haley *et al*: 1999).

OC management has the following common characteristics in their experience-based holistic/intuitive approach to decision-making (Haley *et al*: 1999):

1. hands-on experience;
2. transfer of knowledge;
3. qualitative information;
4. holistic information processing; and
5. action-driven decision-making.

3.4.5 <u>Confucianism</u>

Confucian societies

K'ung Fu-Tzu, called Confucius by the Jesuit missionaries, lived from 551-479 BC (Jacobs *et al*: 1995). He was the first and ultimately the most influential of China's philosophers (Griffith: 1971) and Confucianism has been at the root of the Chinese mind-set for more than 2500 years (Wong *et al*: 1998). Confucius, and especially his successor, Mencius, created a "humanistic philosophy and outlook on life that believed in hard work; conservative adherence to traditional values; the dominance of society over individual and family over society; and a society in which there is a place for everyone, and everyone has his or her place and role to play in society" (Haley *et al*: 1999, 29). So, Confucianism is essentially a code for social conduct where the basic principles of Confucianism are based upon the following:

- obedience to, and respect for, superiors and parents;
- duty to the family;
- loyalty to friends;
- hierarchy at work;
- reverence to age, rank and status; and
- sincerity, humility and courtesy.

All such principles are honoured by the Chinese and any foreign JV partner who genuinely follows these principles will have a head start in building a successful relationship and ultimately successful project (Woo and Prud'homme: 1999).

Law and ethics

Confucian ethics are strongly embedded in the character of the Chinese and whilst such is no longer the law and younger generations of Chinese are learning about Western ways, Confucian ideals will continue to influence their behaviour for the foreseeable future (Wong *et al*: 1998), where the

importance of honour is paramount (Backman: 1999). As well as in China, Confucian ethics form part of the culture of other territories dominated over time by the Chinese. The Chinese dominated Korea for centuries although this period is considered more as a Confucian older brother-younger brother relationship than anything else (Breen: 2004). The introduction of the Confucian ethic by the Chinese and OC alike in Asia is also a part of the business culture in countries like Japan, Singapore and South Korea by the blending of Confucianism and Western scientific management techniques (Jacobs *et al*: 1995).

Confucianism began to develop and articulate its own philosophical rationale in the tenth century and became known as Neo-Confucianism, which was conservative in nature and was based on reverence and an understanding of the past where family and business rules are based upon status. Such rules are difficult for foreigners to appreciate with focus primarily on social inequality, social ritual, familism, *guanxi*, *face* and *sun yung* (Wong *et al*: 1998). Such social inequality concentrated on five un-directional relationships, from superior person to inferior person, and occurred from (Haley *et al*: 1999):

- sovereign to minister;
- father to son;
- husband to wife;
- older to younger; and
- friendship.

3.4.6 <u>Family</u>

Family forms the overwhelming constant in Confucianism where individuals owe responsibility to their parents and to their ancestors, and the founders of major OC companies possessed the Confucian emphasis on the family (Haley *et al*: 1999).

Unlike Japan where successful business is all about community not family, for the OC family is the nucleus of a successful business combined with *guanxi* (Wong and Maher: 1998). Also, in Confucian societies, business relations basically extend family relations (Haley *et al*: 1999) where the family is the first organizational model a person encounters (Kets de Vries: 1999).

OC businesses are built on family and as such nepotism is a necessity. In the West, nepotism is generally frowned upon, whereas Richard Branson of *Virgin* willingly treads the family business model to employ members of his family in top positions as well as providing opportunities for his employees and like Barnevik of ABB and Simon of BP, tried to instil a small-business family like atmosphere in their large companies (Kets de Vries: 1999). However, as companies grow into conglomerates the OC family business model is in danger as it grows beyond the size where it can be run as a family, and particularly when the authoritarian patriarchal figure is spread too thinly to personally make reasoned business decisions (Haley *et al*: 1999). Also, time is a big factor for the success of OC businesses. Typically the first generation starts and builds up the business, the second generation maintains and further builds up the business with ensuing sibling rivalries and infighting, and the spoilt third generation ruins the business. Hence, the Chinese saying *wealth seldom crosses the third generation* (Wee and Lan: 1999, 72). Although, there are examples of third generation deference to their grandfathers, most of the major OC companies have survived only as far as the second generation (Chu and MacMurray: 1993).

Although not common, the OC do have individuals of other nationalities in their networks and company inner circles (Haley *et al*: 1999), however, foreign companies have no legitimate position within the OC family because they are not related (Wong *et al*: 1998).

3.4.7 <u>Networks and Trust</u>

Networks

Asian economies appear network-based whereas the American economy appears company-based (Haley *et al*: 1999). The importance of such networking needs to be fully appreciated and understood for a Western company entering the Asian region to participate in a PBIJV. The importance of good connections has to be recognized at an early stage by a Western company (Davis and Schulte: 1997) and Western managers need to build non-commercial ties of friendship or family in the short-term to build a good business relationship in the long-term with the OC (Haley *et al*: 1999) and to understand the importance in Asia of personal contacts established at university, akin to the British *old boy network* and the Chinese *guanxi*, can create linkages that transcend company allegiances (Hawkins and Rajagopal: 2005).

Teams are formed by companies and as referred to previously are extremely important for project success, whereas contacts and networks are built by people not companies, however, teams are not networks (Haley: 1997). Such networks are organizations of people who have historically relied upon no-one except for their collective selves.

Trust

The primary factor required for the formation of OC networks is trust and because of this the family often form preferred network members. Trust is the centre point and is fully illustrated by the OC business practice of accepting a business partner's word as collateral and a handshake as a contract (Haley *et al*: 1999).

As with the various Asian countries and amongst the OC, Western companies have their own national trust environments. Japan, the UK and some parts of America are examples of high-trust business environments, whereas China, France and Italy are low-trust (Breen: 2004). There are many

obstacles for Western companies to overcome in an environment of network trust. For example, repeated questions by a Westerner to an OC partner on issues that have already been responded to can be interpreted as mistrust (Woo and Prud'homme: 1999). For the OC trust has two elements, the first is based on the same fundamental of trust employed by the West, whereby people gain reputations for doing what they said they would do and the second involves the behavioural ideal of uprightness (Haley *et al*: 1999).

In the same way as with Asians generally, the OC in business are no different than other business people in that they look for individuals who are trustworthy, upright, hardworking, honest and loyal although invariably such individuals are already a part of the OC network. The OC judges individuals not companies and direct their loyalty and trust accordingly as they view trust as something earned between individuals which involves both individuals obtaining mutual benefits from the relationship. Once personal trust has been earned it enables two-way communication which will be open, candid and emotional (Haley *et al*: 1999).

Loyalty

Loyalty can be bought and paid for and many OC companies buy the loyalty of their managers through substantial annual performance bonuses, generous retirement schemes (Haley *et al*: 1999) and providing good working conditions. However, in Asia, loyalty management requires winning employees' hearts (Wee and Lan: 1999) and employees are treated as company assets where Chinese culture dictates that loyalties accrue to individuals (Haley *et al*: 1999).

3.5   SUMMARY

An analysis of the literature review about Asian ways and culture was done to find key dimensions at play as shown in Appendices A.8 to A.11. Further analysis was done to group these key dimensions within each Chapter Three

literature review category. These key dimensions of the Asian Way are summarized in Table 3.1.

Table 3.1: Key Dimensions of the Asian Way

Items	Literature Review Categories				
	Asian Way	Korean Way	Thai Way	Asian Culture	OC Way
Authoritarian		√			
Ambiguous					√
Aware					√
Bureaucratic		√			√
Collective	√	√		√	
Competitive		√			
Complex	√	√		√	
Confucianism-based		√			
Conglomerate-based	√	√			√
Consistent					√
Corrupt				√	
Decisive	√				√
Diverse		√			
Dominant		√			
Dynamic	√				√
Family-based					√
Flexible					√
Guanxi-based		√			√
Hard working		√			
Harmonious					√
Holistic	√			√	√
Individualistic		√			
Inflexible	√				
Informed					√
Loyal	√			√	√
Non-confrontational	√		√	√	
Non-quality based			√		
Paternal			√		√
Patient					√
Politically powerful			√		
Protective		√			
Protectionist					√
Realistic			√		
Recruitment savvy			√		
Respectful	√				√
Self-restraint					√
Simple					√
Speed-based		√			√
Structured			√	√	√
Systems orientated					
Traditional			√		
Trust-based				√	√
Un-structured					√
Virtuous					√
Willing to learn			√		
Winning		√			

Key dimensions required (row label spanning the left margin of the table)

The following key dimensions are required for project success in Asia:

- Acceptance-based
- Awareness
- Collaborative
- Confucianism
- Decisive
- *Guanxi*-based
- Harmony
- Non-confrontational
- Trained
- Trust

Further analysis of these key dimensions is in Chapter Seven.

This part of the literature review concludes that Western project managers require a flexible and holistic way of management thinking as a lead on a PBIJV project in Asia, have the attributes required to both manage and lead project teams, be equipped with an understanding of cultural differences at play and to fully recognize there is no one way of working to achieve project success.

CHAPTER FOUR – QUALITY MANAGEMENT SYSTEMS & TQM IN CONSTRUCTION

4.1 INTRODUCTION

Chapter Two considered the importance of project managers managing and leading project teams and to positively encourage project team integration with total communication on projects and to have a full range of *hard* and *soft* skills. Chapter Three reviewed Asian ways and culture and concluded that Western project managers require a flexible and holistic way of management thinking with an understanding of cultural differences and to fully recognize there is no one way of working to achieve project success. Moreover, Chapter Three found that Asians have a holistic management style. *Out of the Crisis* by Deming argued that the Western style of management of the seventies needed to change. The rise of Japanese dominance in terms of quality owed much to the influence of quality gurus like Deming and Juran. Similarly, TQM is considered to provide a holistic framework, consisting of the organization, its people and their attitudes, for the operational activities of construction enterprises and can be defined as a holistic management philosophy comprising of customer satisfaction, continuous improvement, training and education, teamwork, *keiretsu* and empowerment. This chapter reviews literature about *hard* and *soft* management skills in the construction industry though quality systems and TQM respectively, where project success revolves around the good management of quality at each stage of the development of a construction project and the quality of management throughout all stages but the achievement of quality on projects takes more than words, it takes planning, systems, people and hard work.

The objective of this chapter is to explore whether Western project managers need to apply a basic core philosophy of being simple, holistic, dynamic and flexible for management issues on a PBIJV project in Asia and if it is

important to recognize *hard* and *soft* TQM fundamentals to achieve project success. This exploration shows that Western project managers need to address all of these issues with a flexible and holistic way of management thinking as a lead on a PBIJV project in Asia and recognize the importance of TQM fundamentals in the Asian context to achieve project success.

4.2 QUALITY, QUALITY MANAGEMENT SYSTEMS AND TQM

4.2.1 Introduction

According to research by Deming (1982) some 94% of problems in quality are caused by management and the systems they create (Ho: 1999a), so the criticality for organizations to establish, implement and improve quality management systems to meet the changing demands of the environment together with well-trained management and workforce generally is clearly evident.

4.2.2 Quality

Quality

Quality; the word itself must have been used more in the last few decades than in the preceding millennium, yet the more the word is used the more confusing its actual meaning seems to become. Everyone believes they know what quality is yet conversely they cannot reach joint agreement about what it is and if it is so difficult to agree what quality is, it is difficult to show it actually exists (Pirsig: 1999).

From a business perspective quality means customer interest and customer interest means business, where the challenge is to understand the needs of the customer and the customer's definition of quality (Beveridge: 1991). But the demands of customers are dynamic and quality although intangible is similarly not static but dynamic and should not be considered as a once and for all target. Quality is a moving target and in order to meet dynamic

customer needs, the organization itself must be dynamic (Chaudron: 2006) and businesses must aim for quality in fact and not be mis-directed by quality in perception, where quality is the organizational equivalent of truth (Handy: 1991).

Quality in the construction industry

In the construction industry quality has several facets such as quality of design, materials, workmanship, performance and service provided to customers (Flanagan and Tate: 1997) where quality appears to mean *how* a service is delivered, not *what* is delivered (Harkin and Gunning: 1999).

To define quality in the construction industry is difficult and it remains doubtful whether it will ever be possible to measure quality, although it may be possible to measure some of its attributes (Ferry: 1984). Over the years, the expectations of owners/clients on construction projects increase. Project clients want their projects to be constructed on time to a price that is value for money and to a quality that matches or betters the specification. According to Reiss (1996) quality is about exceeding the client's expectations, which for the contractor should be expressly and clearly stated within a construction contract. So from a client's perspective project quality should have been provided when the project has been completed in accordance with the terms and conditions of the contract documents.

Project quality does not start on site, it starts at the beginning of a project with the formation of the owner's/client's core technical project management team (Preece and Tarawneh: 1998) and the start of conceptual design. Quality must be designed and manufactured into the project because it cannot be inspected into the project (Bendell *et al*: 1994).

4.2.3 <u>Quality Systems</u>

Introduction

Many seasoned construction people have their own tried and tested private ways of working. Such personal systems are indelibly printed in their own consciousness. But to attain project success organizations need good well-structured systems in place so that the project team can do their work as a unit in an efficient and effective manner. Even though systems make projects possible, people make projects happen (Goffin and Szwejczewski: 1996) where any system is only as good as the people responsible for making it work (Bishop and Gembey: 1985).

Systems

Perfection is impossible (Pirsig: 1999) and systems in the construction industry should not necessarily require perfection, as firstly there is a price to be paid for ultimate perfection where such a price has to be balanced against the value of the outcome (Hawkins and Rajagopal: 2005) and secondly the search for ultimate perfection may add more complexity to a system than it is worth (de Bono: 1998). It is important to have common sense and keep things at an optimum simplicity level. Make the glove fit the hand, no more no less. Over-sophisticated techniques and procedures can easily swamp the goodwill and enthusiasm of the project team where an excessive use of forms and computer print-outs is symptomatic of this type of problem. Even though simplicity is difficult to achieve, the aim of project managers should be to strive for system simplicity based upon the KISS concept of 'keep it short and simple' (Martin: 1995). An alternative version runs 'keep it simple, stupid'.

Many organizations implementing a quality system overlook non-technical considerations with too much emphasis placed on technical issues specified in ISO 9000 standards which is not a good start to implement a quality system (Pheng and May: 1997). As highlighted by McNamara (1998), Lewin (1946) understood that a holistic understanding of a system is a precondition

to understanding any part of that system and a proper understanding is the only way to deliver a KISS based system. Indeed in Asia one of the fundamental differences between Japanese and Western concepts of the quality management system is the total approach adopted by the Japanese, as opposed to the traditional Western style of managing in isolation. As cited by Tam and Tong (1996: 126), "Chinese medicine (Yiu: 1964 and Chan: 1991) is a good example of the systems approach in which the whole body is examined and treated rather than the single affected organ".

5-S Approach

The 5-S approach is an Asian quality system approach based upon the fundamentals of simplicity used to establish and maintain a quality environment in an organization (Ho and Cicmil: 1996). Although the West seldom recognizes the significance of this 5-S approach practice there are indications that some organizations have included some aspects of the 5-S in their routines without being aware of its existence as a formalized technique (Ho: 1999b).

Quality systems

Quality systems have their grass roots in the controlled, repetitive environment of the manufacturing industries. A quality system is the organizational structure, procedures, processes and resources needed to implement quality management. Quality systems as defined by Ashworth (1994: 170) are:

> *made up of the mechanisms and their documentation. A quality system is one that has the potential for producing goods to specification, although it cannot guarantee that all goods will meet it, nor can it guarantee that the specification or standards reached will be better than those provided by another organisation,*

whereas, Castle (1996: 11) defined an integrated quality system as:

> *a management system which by using intelligence activity, and developing policies encourages the evolution of integrated, motivated, and learning human activity in seeking continuous improvement and economic usage, of the selected and focused structures, integrated systems, technology, processes and resources required, to transform the creation, production and delivery of focused products and services, so that they are consistently distinctive in the quality characteristics (tangible and intangible) they provide, at their price, for the greater benefit of their customers, in comparison to competitive offerings.*

Regardless of definitions, all quality systems should provide project advantages and result in higher defined project quality at lower costs and shorter production times (Calavera: 1998). Hughes and Williams (1991), gave the following 11 advantages of a systems approach:

1. improved communications and efficiency;
2. checking of work and avoidance of unnecessary and costly errors, failures and expensive remedial works;
3. documented proof that work has been executed in compliance with the document and specifications;
4. easier implementation of owner/client changes;
5. precise clarification and quantification of the effects of such changes;
6. easier identification and quantification of delays and claims;
7. completion on time;
8. reduced maintenance period remedial works;
9. provision of as-built records;
10. possible reduction of insurance premiums; and
11. improved competitiveness and marketability of services.

4.2.4 <u>Benchmarking</u>

Benchmarking is a method first popularized by Xerox (Madu *et al*: 1994) and is used to compare a process against those of recognized market leaders to identify opportunities for quality improvement. Zairi and Leonard (1994: 81) stated that "benchmarking is not a measurement itself but a process of establishing gaps in performance and as such ensuring that an action plan is put in place to close identified gaps and measure to verify", where a company compares their efficiency in terms of productivity, quality and practices with other companies that represent excellence (Karlöf: 1993) and has been an important tool in TQM programs across America (Mittelstaedt: 1992).

A key assumption for benchmarking is that companies strive to be the best they can be and if a company really wants to learn they have to watch what the best companies are doing (Peters and Waterman: 1982). Compatibility between companies is important in terms of benchmarking. Large market leading organizations can benchmark with each other to aim for superior performance and for PBIJVs better process compatibility, but a smaller organization with growth plans would find more performance gaps in the short-term if benchmarking with a market leader (Olomolaiye *et al*: 1998).

Benchmarking only works if consistent methods of measuring process performance can be developed and introduced and in the construction industry this is not an easy task due to the nature of the industry with its lack of data gathering and productivity fluctuations (Sherif: 1996). Schools teach pupils to imitate and imitation for imitation sake needs to eradicated (Pirsig: 1999) because simply following everyone else through benchmarking comparisons can be a backward-looking process resulting in the adoption of old ideas (Ridout *et al*: 1998) and it is important to always remain flexible in thoughts about best practice ways of working.

Construction project benchmarking needs to address the uniqueness of the construction working environment, particularly on PBIJVs, where different organizations temporarily work together as a project team for the duration of a construction project to produce a permanent product (Sherif: 1996). Project micro benchmarking can also be relatively simple exercises such as sourcing appropriate international architects with certain required levels of megaproject experience in a particular country.

On the macro side, external benchmarking is more concerned with the selection and implementation of managerial and technological breakthroughs, developed by other industries. As well as external benchmarking, companies undergo internal benchmarking through the examination of internal processes and practices to establish and better understand issues such as activities that cause operational inefficiencies and consume too much time and cost, without adding value to the process (Sherif: 1996).

4.2.5 ISO 9000 Series

The BS EN ISO 9000 system consists of a quality manual and two or three levels of documentation which establish procedures as to how tasks relating to quality are done. It requires traceability, a focus on customer requirements, regular internal audits of the system and corrective and preventive actions in the case of deficiencies. The ISO 9000 series of quality management and assurance standards was published by the ISO in Geneva in 1987. In the following three years, as recorded in 1990, over 30 countries adopted the ISO 9000 Certification Scheme (Tam and Tong: 1996).

Although ISO 9000 was originally developed for manufacturing it has being adopted by the service sector. The process began when large international companies encouraged their suppliers to register and become ISO 9000 certified. Over time the pressure from customers for tendering companies to have ISO 9000 certification increased. For example, contractors in Hong

Kong only consider ISO certification as a gateway for inclusion onto tender lists and not as a commitment to quality (Tam and Tong: 1996). Similarly, a study by Goh and Ridgway (1994) conducted among SMEs in the UK revealed that ISO certification was the end-point in their quality drive and possibly not even achieved with improved quality in mind.

ISO standards are about how you do things, not what you do. If you want to produce concrete life jackets you could do so under a TQM environment and with accreditation. Just because the company you are buying a product from has ISO 9000 on their notepaper does not make their product the best available, it just means their systems are good (Peters: 1997).

4.2.6 Quality Management

The expansion of QM practices came about after 1980, fuelled by Juran and Deming (Jacques: 1996) and the effect of Japan has been crucial to the development of QM in the West (McCabe: 1998). An effective QM system needs to have a customer-oriented framework and the company implementing the system must be organized in such a way that focuses on customers (Pheng and Omar: 1997) and to effectively maintain a QM system in the construction industry, a balance of the technical requirements and theoretical approach, as used in the manufacturing sector, is necessary (Spekknink: 1995).

It has already been established in this research that the construction industry is characterized by activities which are discontinuous, dispersed, diverse and distinct rendering its implementation of QM more difficult not only at a national level but also at a project level (Pheng and Tan: 1995a). Nonetheless, the construction industry has been driven to adopt QM systems and procedures in the main by major project owners/clients (Cheetham: 1998), such as BAA, and the use of QM in the construction industry is now well established (McCabe *et al*: 1997a) and consists of the following six

Quality Assurance ("**QA**") concepts – quality policy; quality objectives; QA; Quality Control ("**QC**"); quality audit; QA plan and review.

QM is concerned with organizations challenging the ways they work and looking for more efficient and effective work practices and procedures (Lavender: 1996) as such QM systems must be allowed to evolve to accept changes to the internal and external environments through communication, building coalitions, working teams, persistence and perseverance (Pheng and Omar: 1997). This is particularly important for large construction companies with complex organizational structures because as argued by Kanter in an article in *The Financial Times*, on 24 July 1997, the more complex the organizational structure, the more effective its QM system is likely to be.

European Foundation for Quality Management

The EFQM was founded in 1988, and is committed to promoting quality as the fundamental process for continuous improvement within a business. The EFQM Business Excellence Model (1999) was designed to be (EFQM: 1999):

- simple (easy to understand and use);
- holistic (in covering all aspects of an organization's activities and results, yet not being unduly prescriptive);
- dynamic (in providing a live management tool which supports improvement and looks to the future);
- flexible (being readily applicable to different types of organization and to units within those organizations); and
- innovative (enabling new developments).

4.3 TQM APPLIED TO THE CONSTRUCTION INDUSTRY

4.3.1 <u>Introduction</u>

From QM Systems to TQM

There was nothing revolutionary about BS 5750 and ISO 9000, and well-run companies could readily comply with the procedures required to qualify for and maintain certification. In contrast, TQM, following the pronouncements of gurus like Deming, demanded for most companies a revolutionary culture change (Shammas-Toma *et al*: 1998).

A TQM approach is the big picture whereas all activities conducted through QM systems based on the ISO 9000 series family focused on the management of process quality, as such ISO standards provided an excellent basis upon which to develop a TQM approach (Arditi and Gunaydin: 1997). Where QA is concerned with the management of systems, TQM focuses on the quality of those management systems. Table 4.2 highlights the fundamental differences between QA and TQM.

TQM

TQM has received a growing amount of attention in the last two decades (Jung and Wang: 2006) but was originally developed in America in the fifties and sixties and although adopted and brought to the fore in Asia by the Japanese is not a Japanese innovation (Clarke and Clegg: 1998), however, it was not initially accepted by corporate America. Jacques (1996: 6) stated that:

> *"the quality movement began in the summer of 1950 when Deming went to Japan. Deming never used the acronym TQM. The Japanese evolving philosophy of quality, begun by Deming and evolved by Juran, Ishikawa, Kano and others, is, in Japan, commonly called TQC, a term that never caught on in the USA. TQM began to become the popular reference in the mid-1980s*

when the military services plunged into quality with vast amounts of money available to hire trainers and consultants. The military called their quality effort TQM".

TQM was originally established for pure manufacturing industries that produce a product and are non-project based. The pioneering TQM companies included IBM, 3M, Toyota, Ricoh, Canon, Hewlett-Packard, Nissan (Smith: 1988). Although Deming never introduced the TQM terminology the basic requirements of a TQM approach fit very closely with his 14 points for management (Cole: 1997). Deming was more interested in management, cultural change, and senior managers' vision for companies than quality and improvement tools (Wilkinson *et al*: 1998).

TQM is a quality approach applied to the organization, management process, operating process and product to managing a company which can result in providing a quality product and service (Reiss: 1996) through its procedures and guidelines (Chapin: 1995) and changing attitudes and behaviour towards doing business. More than anything else TQM is an attitude and the time involved to change attitudes can take time. As stated by Taylor (1911: 131) almost 100 years ago with respect to changing a scientific management system, "the really great problem involved in a change… consists in a complete revolution in the mental attitude and the habits of all of those engaged in the management, as well as the workmen…The writer has over and over again warned those who contemplate making this change that it was a matter, even in a simple establishment, of from 2 to 3 years, and that in some cases it required from 4 to 5 years".

TQM is about the quality of management and to a much lesser extent the management of quality (Stitt: 2002) and it starts at the top of an organization with a mission statement or a policy document that outlines a company's determination to be a quality organization. It is essential for all team members

to have a positive attitude because the effective implementation of TQM depends on that attitude (Woods: 1994).

TQM defined

Collard and Sivyer (1990) defined TQM as "a cost effective system for integrating the continuous quality improvement efforts of people at all levels in an organization to deliver products and services which ensure customer satisfaction". But any TQM definition needs to incorporate the external environment outside of the internal boundaries of a company (Zairi and Youssef: 1995a) and capture the holistic nature of management. As in the manufacturing industry, TQM provides a holistic framework for the operational activities of construction enterprises (Chileshe and Watson: 1997). In this regard, Kaynak (2003) defined TQM as a holistic management philosophy which strives for continuous organizational improvement, and TQM must include the holistic integration of strategy, process and technology (Castle: 1996).

The participation of all the employees is essential for the success of TQM where another one of the basic tenets of TQM is that managers and workers should share the same objectives (Dale *et al*: 1997). But, the underlying factor that differentiates TQM from many other tools is the principle that everything must be geared so as satisfy the customer. In TQM all members of an organization need to understand their value and role, both as customers and as suppliers to every customer and supplier with whom they interact, inside and outside the organization.

It has been established that key elements of TQM include top management leadership, co-operation and teamwork, satisfying customers, the need to improve, for managers and workers to share the same objectives and the principle that everything must be geared so as satisfy the customer. So customer satisfaction and continuous improvement are the fundamental goals of TQM (Baxendale and Burrell: 1997) and form the following principles

on which it is based. These principles are the following (Ashworth: 1994, Sadgrove: 1995 and Watson: 1999a):

- leadership;
- commitment;
- total customer satisfaction;
- continuous improvement;
- total involvement;
- training and education;
- ownership;
- reward and recognition;
- error prevention; and
- cooperation and teamwork.

TQM in the construction industry defined

Constructing the Team (1994: 11) defined TQM as:

> *a way of managing and organisation to ensure the satisfaction at every stage of the needs and expectations of both internal and external customers, such as shareholders, consumers of its goods and services, employees and community in which it operates, by means of every job, every process being carried out right, first time and every time.*

Watson (1999a: 1) stated that in construction terms, consensus definition of TQM is:

> *TQM is a management philosophy which aims to produce a better performance from a whole project team and to result in better quality products and services, delivery and administration, which ultimately satisfy the client's functional and aesthetic requirements to a defined cost and completion time. For this to*

> *work the client has to accept the responsibility associated with being part of the project team.*

TQM in construction

As the business world changes from traditional management practices to TQM, there is no reason why the construction industry should be left behind. In 1992 the Department of Trade and Industry ("**dti**") in the UK set up the Henderson Committee to study the feasibility of improving the performance of British industry through TQM. This Committee recommended that improving management procedures was vital for an improvement in the construction industry's performance (Chileshe and Watson: 1997). Deming had claimed that by 1999 there would be only two types of business, those that practice TQM, and those that are no longer in business. In the context of the construction industry this means that all of the construction and property industry, as detailed in Chapter Two, must embrace TQM otherwise owners/clients will not engage them (Smallwood and Rwelamila: 1996).

Many practitioners contend that TQM is inapplicable to construction projects. The underlying reluctance to implement TQM appears mainly due to a reluctance to change attitudes, traditions and management policies. But TQM at the construction site is not only possible but has proven to be a success with improved co-operation where a positive team attitude has been developed (Cook: 1996).

The construction industry has been led to TQM by the manufacturing industry (Chapin: 1995), although even in its own safe haven of manufacturing TQM has been criticized. McCabe (2006) considered whether TQM could be applied to the complex, fragmented construction industry as it is far from being akin to a factory manufacturing environment as it creates unique construction products (Chapin: 1995) which eliminates the potential for any kind of statistical process control ("**SPC**") (Hellard: 1994).

Kubal (1994) concluded the TQM approach was impractical for the construction industry and many standard TQM approaches of the manufacturing or service industries are not transferable to the construction industry (Stockdale: 1997), such as the following:

- empowering workers;
- standardisation of product;
- JIT materials management;
- limitations of suppliers;
- complete customer satisfaction;
- research and development;
- advanced artificial intelligence applications; and
- construction automation and robotics.

Also, the transient nature of the construction work force is different from the relatively stable manufacturing work force (Burati *et al*: 1992). But the biggest obstacle to the adoption of TQM is the basic forms of construction contracts used with their worse-case based clauses where the project quality system must strictly comply with the requirements of the contract (Pheng and Peh: 1996).

The key principles of the TQM approach can be applied to the construction industry to improve productivity, employee morale, customer satisfaction (Chileshe and Watson: 1997) with its holistic management philosophy as depicted in Figure 4.1 and reviewed in more detail in the following parts of this chapter.

The *soft* side of TQM involves using quality tools in a way that emphasizes the people in an organization (McCabe: 1998) with such *soft* outcomes including culture, communication and commitment, which provide the foundation for the TQM approach. This *soft* side of TQM is just as important as the *hard* side of quality procedures.
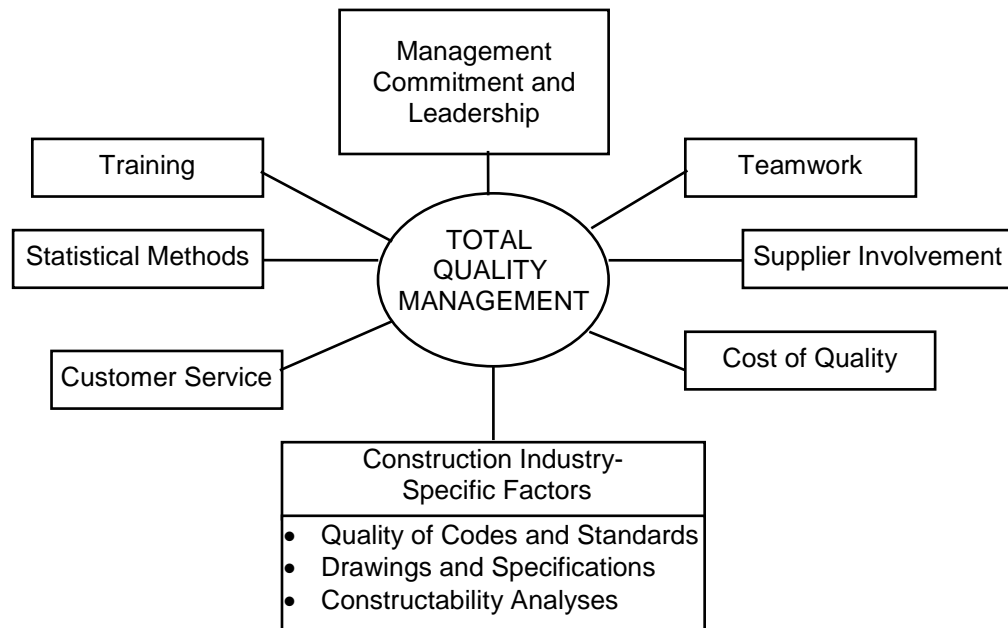
Figure 4.1: Elements of TQM in the construction process
Source: Arditi and Gunaydin (1997)

TQM at construction sites is not only possible but has proven to be a success (Deffenbaugh: 1993). In Asia, Japanese construction companies embraced the TQM approach in the seventies after benefiting from the experience of the manufacturing industry (Olomolaiye *et al*: 1998). *Rethinking Construction* stated that "*Neil Muller Construction of South Africa* have used TQM techniques to achieve an 18% increase in output per employee in a year, a 65% reduction in absenteeism in 4-years, and a 12% saving on construction time on major project".

TQM and Project Management

In a study of TQM in the UK construction industry by Shammas-Toma *et al* (1998), a major finding was that even though all contractors involved in the study had QC procedures in operation and 23 of the 25 companies were certificated to BS 5750, the quality achieved generally fell below the required

standards. The conclusion of such a result is that project managers required more than just traditional QA and QC to deliver a quality project.

Project management principles are recommended as an optimum tool for implementing TQM and managing people with cross-functional and multi-disciplined backgrounds from various organizations (Stamatis: 1994). TQM can provide the vision and goal of benchmarked best practice by improving organizational performance and moving toward continuous improvement focused on customer satisfaction (Barkley and Saylor: 2001) and project management can focus on management methods, such as planning, monitoring and controlling (Bryde: 1997).

4.3.2 Customer Satisfaction

Deming recognized that customers as the most important part of the supply chain and that they can be either internal or external to the organization. A TQM organization values all such customers, and expects reciprocity in all matters with their customers (Lavender: 1996) and it is important that project managers best ensure that all of these customers are satisfied.

External customers

The function of the construction industry is to provide external customers with facilities that meet their needs. For a company to remain in business this service must be provided at a competitive cost. The construction industry can at times be too busy protecting their perceived interests to give any thought to the needs and expectations of their customers (Morrison: 1995) which results in unnecessary contractual wrangling, the creation of too many artificial divisions within the construction industry and not providing a proper service (Dixon: 1989).

The main external customer for a contractor is the project owner/client. The *Latham Report* suggested that these clients are the driving force of the

construction process and that their needs must be met by the construction industry. The *Latham Report* also implies that clients are the source of many of the problems experienced by the industry. Indeed, a common source of complaint by the industry is that client does not know its own mind.

Internal customers

Although the transient workforce in the construction industry does not regard each other as internal customers (Cheetham: 1998), all members of the workforce form a supply chain which consists of staff, operatives, consultants, subcontractors and suppliers and the like on a construction project should consider themselves as an internal customer to the previous supplier (Olomolaiye *et al*: 1998). These internal customers need to both provide and receive deliverables within the project team such as studies, reports, drawings, specifications, contracts, plans, procedures and materials.

4.3.3 Continuous Improvement

The measurement of TQM success is customer satisfaction and the way to achieve it is mainly through systems design and continuous improvement. Continuous improvement refers to never being satisfied with the current level of quality and success in meeting customers' identified needs, requirements, interests and expectations, but is certainly not a new concept, as discussed earlier it is simply common sense. Indeed, over 500 years ago Machiavelli (1515) believed that a wise prince ought to never in peaceful times stand idle.

The construction industry has always been concerned with continuous improvement of processes with fresh ideas at the core (Chao: 1998), many of which at one time or another in the past have been considered as radical processes (Chu: 1994). Such processes need continual adjustment to meet continual changes in the environment and in the needs of customers where there is no one best way, as today's best way may not be appropriate tomorrow (Martin: 1995).

Setting simple goals is important to develop a culture of continuous improvement (Kets de Vries: 1999). Processes can always be improved, and therefore grades of excellence can be aimed for but the journey in the pursuit of excellence or even perfection for perfection's sake is a mistake (Peters: 1997). Continuous improvements eventually transform operations, lead to service innovation, new processes and eventually fundamental change (Drucker: 1999).

Excellent companies do no not focus on excellence but on continuous improvement (Peters: 1997) and such a mindset needs to part of an organizational culture (Porter: 1996) where the cyclical process of continuous improvement never ends (Cole: 1997). However, during the life cycle of a construction project there is no spare time to set up new systems so TQM procedures need to be established prior to project commencement because one of the things TQM needs is a sufficient amount of time to set-up (Reiss: 1996).

In a similar vein to Deming, Juran contended that less than 20% of quality problems are because of workers. Management and bad quality processes cause the rest. Training is required to address such management and quality issues (Pindur *et al*: 1995).

4.3.4 Training and Education

No matter how carefully crafted and comprehensive a good approach to TQM may be, it can only be implemented by people (Goffin and Szwejczewski: 1996) and they need to be educated and trained to understand such an approach to work effectively and efficiently and as a result achieve project success (Ashford: 1989). Pirsig (1999) referred to education as mass hypnosis, but an educated workforce is required for project success.

Although work can be the greatest teacher (Chu: 1994), upon entering the workplace employees need training to understand organization systems and to provide quality because quality begins and ends with training (Imai: 1986). *Rethinking Construction* stated that training and quality are inextricably interlinked and training is very important (Mortiboys and Oakland: 1991) because it is the responsibility of everyone and TQM training plans must be targeted at every level of an organization, from management to workers (Pheng and Omar: 1997) and should consist of modules for quality tools, team leadership and quality philosophy (Oakland: 1998). These training plans will change over time to accommodate the implementation of continuous improvements and organizations need to develop and offer training and development workshops to assist the project team to adapt to such changes (Yisa *et al*: 1996).

Training should be given by employees who know the business together with outside consultants to emphasize the importance of the training and to act as the training team leader and facilitator. Training as part of a project team and not as individuals within a team is also important (Clarke and Clegg: 1998) and TQM requires a robust training system consisting of the following five main categories to accommodate any major organizational shift in attitudes and behaviour (Beveridge: 1991):

- awareness;
- adoption;
- analysis;
- adaptation; and
- adept.

An area of concern in the construction industry is the lack of trained manpower. TQM emphasizes the importance of training and could therefore resolve this area of concern (Jones and Cockerill: 1984). In *Accelerating Change*, the Strategic Forum stated that "an undervalued and under-trained

workforce makes mistakes which result in financial, environmental and, all too often, human cost", but the transient nature of the construction work force makes it more difficult for organizations to provide TQM training for workers, but if all organizations in the construction industry train transient workers and TQM approaches become commonplace then, as with project management, there will be less cost redundancy associated with such training (Arditi and Gunaydin: 1997).

Chapter Two highlighted the fragmented nature of the construction industry and stressed the need for de-fragmentation. In a similar way, the education system needs to ensure that project management training is more holistic in nature because, as argued by Kwak and Anbari (2009: 444), "business schools are too functionally fragmented. Too much of their teaching and learning is compartmentalized into distinct disciplines. Students leave business schools thinking that there are accounting problems, finances problems, marketing problems, production problems, and so on".

4.3.5 <u>Teamwork</u>

Teamwork in Asia and the West is not the same (Buchanan and Huczynski: 1997). The Asian way for teamwork is based more on consensus than in the West although the West is by no means homogeneous in this regard. However, effective teamwork will be achieved only if team members are bound together by mutually established internal goals rather than just by contractual arrangements (Langford *et al*: 1992).

Organisations must pay attention to teamwork to compete in the modern business environment (Thamhain: 2004) as it is the best way to achieve project success (McCabe: 1998). But the formation of an efficient and effective team is very difficult as it is never the gallatico dream team scenario of including the most skilled people (Glanville: 1996), and simply calling a group of individuals a team does not make it so (Pirsig: 1999) because being

part of a team is not a natural human function, it needs to be learned (Crosby: 1980). A project team with a TQM approach requires mutually exclusive individual qualities so that the team members possess opposing qualities with a full range of personal and technical characteristics (Bank: 2000).

4.3.6 <u>Customer Service</u>

Many industries survive based on their customer service. The construction industry traditionally has a poor reputation for customer service and a bad reputation for after-care service, which is seen as the weakest point in a contractor's service (Preece and Tarawneh: 1998). In most industries after-care service is expected within the price of a product, but project clients in the construction industry do not appear interested to pay 'extra' for such a service (Ashworth: 1994). Nonetheless, according to the Morrison Construction Group, as cited in *Constructing Total Quality* (1994: 11), they "aim to be the best in the business through the strongest commitment to Quality and Customer Service".

The construction industry needs to develop a better understanding of what project clients expect in terms of services provided to them both pre and post completion of construction activities. This can initially be achieved through constantly meeting the customer and asking them for opinions to build up goodwill and trust (Bryde: 1997). The project team has to listen more closely to what the customers are saying because they are decision-makers (Rainat: 1994). This can be further developed through regular customer surveys as strongly encouraged in QM systems such as ISO 9001, although research findings in a study by Kujala and Ahola (2005) indicated that the use of customer surveys does not actually create technical benefits for project-based organizations and are more symbolic in nature. However, the ultimate customer service is to perform the contracted works on time and respond at

all times to the customers in a prompt and professional manner (Kemp *et al*: 1997).

4.3.7 <u>Focus on Customers</u>

The importance of achieving customer satisfaction and to provide quality customer service to attain project success forms key parts of this chapter. This important feature of project success requires a constant focus on internal and external customers alike and involves more than just identifying who they are. It is also important to establish how they are identified and served. Because it takes more than just compliance with project procedures to satisfy internal or external customers. All project team members need to focus on customer satisfaction needs and maximize the quality of service to their particular customers (Martin: 1995) because the most important component holding project teams together is a customer-focus philosophy (Kets de Vries: 1999). Customers come in many shapes and forms, and there are least two ways in which focus on customers can be interpreted in TQM. Firstly, satisfying the need of external customers in the external market and secondly the often neglected need to satisfy internal customers. Indeed, integral to the TQM approach is that at every stage in any process a product or service is being provided to a customer, whether that customer is the next in line in the formal organization cycle or an actual end-user (Clarke and Clegg: 1998) as depicted in Figure 4.2.

Courtesy of treatment

Fitness for purpose /
price-range
conformance to design

Acceptable

Efficiency of delivery

Quality sought by
consumer
(product / service)

Reliability and/
or durability

Acceptable / best possible
design / features

Availability (in time)

After-sales service
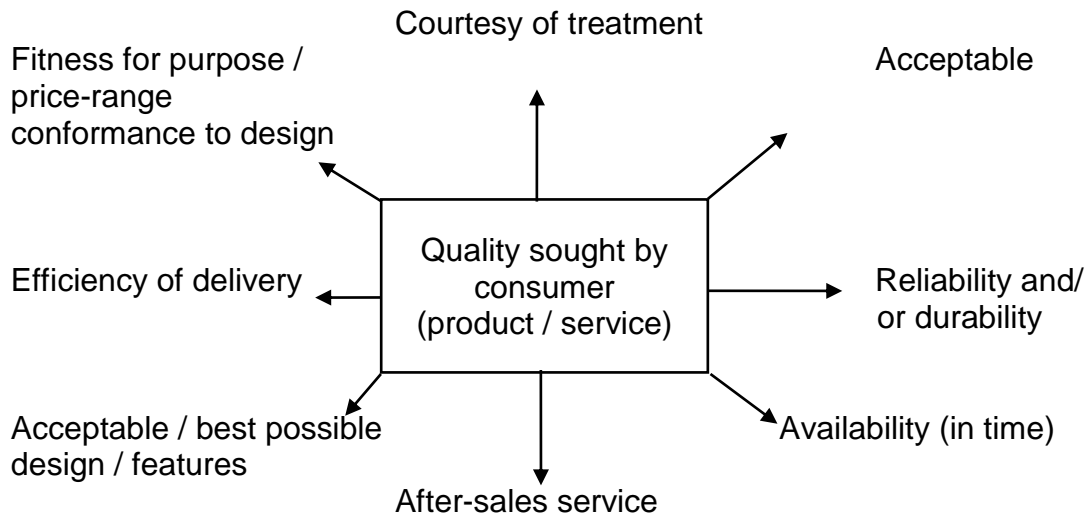
Figure 4.2: Key elements in the concept of quality

Source: Cole (1997)

4.3.8   Implementation

Implementation

TQM implementation often goes through a series of phases consisting of a high profile initial introductory phase, a second phase of hope and enthusiasm, and a third phase often characterized by disappointment and disillusionment (Wilkinson *et al*: 1998). So the first step to implement TQM is for management is to recognize that there is a problem as top management is expected to set the standards and be an example through their conduct (Webb: 1995) and to actually get the job done people must physically implement ideas (Crosby: 1980) and not just provide advice, further ideas or comment upon the situation at hand. Quality cannot be provided as a ready-made off-the-shelf package because the strategy to implement TQM is a unique experience based upon a mixture of ideas from the various quality gurus (Zairi: 1991). Successful implementation of TQM needs an implementation strategy (Stamatis: 1994) where defining the timeline is perhaps the most crucial element in the entire implementation process and to ensure that the system will facilitate and promote continuous quality improvement program.

The implemented TQM approach needs to be developed in accordance with the following basic steps (Puri: 1992) and is a continuous cycle (Collard: 1993):

1. establish a TQM environment by drafting a corporate vision/mission statement and determining TQM principles such as, customer focus, quality commitment, employee involvement and disciplines;

2. establish supplier/customer/management relationships;

3. set up management systems for all the processes throughout the product life cycle including market research, product development, purchasing, manufacturing, testing inspection, packaging and transportation, customer service;

4. establish evaluation systems such as internal audit and QA;

5. continuously improve management systems; and

6. review and revise the continuous improvement cycle.

Successful implementation of TQM requires *soft* outcomes of TQM, but the *soft* must be complemented by some *hard* management necessities such as the following (Mortiboys and Oakland: 1991) as depicted in Figure 4.3:

- systems (based on a good international standards);

- teams (the councils, quality improvement teams, QCCs, corrective action teams); and

- tools (for analysis, correlations, and predications for action for continuous improvement to be taken).
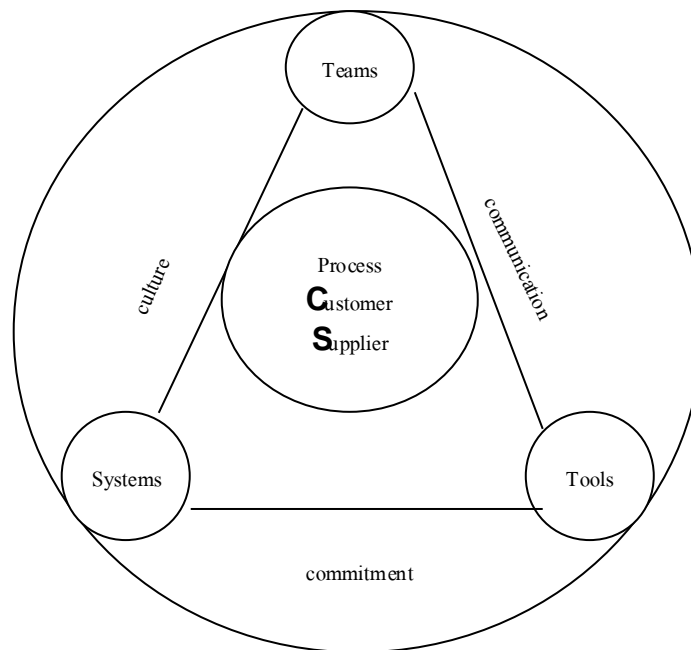
Figure 4.3: TQM model – major features
Source: Oakland (1998)

TQM implementation problems

The initial introductory phase of implementing TQM can be daunting, and senior management can become confused and annoyed by the large variety of quality theories and packages. The only way forward is to maintain the KISS principle and maintain TQM approach simplicity (Oakland: 1998). Simplification is the order of the day. An extreme example is where in one company of 85,000 employees, it took 18 months just to inform all employees that TQM would be implemented (Federle and Chase: 1993).

TQM theory promises teamwork, empowerment, customer focus and problem prevention. However, the reality is often far removed from such theory when the TQM approaches are often re-interpreted by managers who are reluctant to give up power and are driven be short-term considerations (Wilkinson *et al*: 1998). It is a fact that the successful implementation of the TQM approach cannot be attained without the backing of people. Firstly, TQM must be truly

company-wide and it must start at the top with a high profile sponsor such as the Chief Executive (Oakland: 1998); secondly, if middle managers are not committed they can block its implementation (Federle and Chase: 1993), and thirdly, whilst leadership must come from the top real change will be generated by those at the bottom (McCabe *et al*: 1997b). So a successful TQM programme should have the following attributes (Olomolaiye *et al*: 1998):

1. committed leadership of the highest standard throughout the lifetime of the organization because TQM is a culture and philosophy that must permeate as *the* method of management;

2. training targeted to every level of management and employees because TQM uses a participative, disciplined and organized approach to problem identification and solution;

3. teamwork, because TQM requires extensive involvement of all employees and harnessing to the maximum extent the qualities and capabilities of everyone;

4. supplier involvement, because TQM cannot succeed without the involvement of material suppliers and subcontractors;

5. upstream preventive management which shifts emphasis from past-event inspection to pre-event planning. This requires seeking out potential problems (or improvement opportunities) and not merely waiting for a failure to happen before effecting improvement;

6. ongoing preventive action requiring the need to attack constantly the real root causes of problems or potential problems by the combined efforts of management, staff and operatives to minimize panic management or 'firefighting';

7. improved communication to make sure that all required information is supplied at the correct level, at the correct time and to the required degree of detail by driving out fear of reporting at all levels and breaking down communication barriers;

8. clearly identified vision, mission and goals; TQM cannot be steered to continuous improvement without them; and

9. focus on employees to include career development plans, profit sharing, enhanced training, employee involvement and recognition; employee satisfaction is indispensable in TQM.

The toughest obstacle faced by organizations on the road to TQM are not technical issues, but the cultural ones (McCabe *et al*: 1997b) because more likely than not TQM implementation requires a complete turnaround in corporate culture and management approach (Quazi and Padibjo: 1997) and issues related with organizational culture are further compounded by different country cultures as different countries with different cultures apply TQM in different ways (Martínez-Lorente *et al*: 1998).

Implementation of TQM in the construction industry

There are the same TQM implementation problems and difficulties in the construction industry as encountered in the manufacturing industry plus some more due to the unique nature of the construction industry. The implementation of TQM in the construction industry frequently leads to conflicts between the parties involved in the construction and development process (Pheng and Peh: 1996). In research conducted by Watson (1999a) in association with 20 construction companies who successfully implemented TQM, the following problematic issues were identified:

- insufficient commitment by senior management;
- incorrect corporate culture;
- no formal implementation strategy;
- narrowly based training;
- lack of effective communication; and
- not concentrating on organizational strengths.

As in the manufacturing industry, TQM implementation takes time and project clients cannot expect contractors to apply a TQM approach to a project just because a tender document requires as such (Babbar and Aspelin: 1994).

For TQM to be implemented in the construction industry and organization, there needs to be a major change in the way companies think and do things. Project clients provide the best chance at implementation in the long-term since contractors listen to potential customers. Although as highlighted by Stockdale (1997: 2), "research by Dyason and Kaye (1994), has also shown that 80% of quality initiatives fail within one to three years of implementation", where "the companies and organisations that have introduced TQM say that it takes at least four years and probably longer. The first year will be critical" (Mortiboys and Oakland: 1991, 39).

Sustaining TQM

Sustaining TQM is about maintaining the baseline gains made in the organization through a process of continuous improvement, evaluated at regular intervals and there are the three following basic features to sustain TQM (Dale: 1996):

1. individual TQM elements;
2. the overall process of improvement; and
3. holding of the gains made.

It is clear that a continuous effort is required to sustain any new approach with good transparent communication at all levels of the organization at the fore to assess progress of the TQM approach. In a three-year research project into sustaining TQM by the QM Centre at UMIST completed in the mid-nineties an audit tool was developed to assess the following categories which impact sustaining TQM (Kemp *et al*: 1997) as further detailed in Table 4.1:

1. internal/external management;
2. management style;
3. policies;
4. organization structure; and
5. process of change.

Table 4.1: TQM sustaining categories and issues

Source: Kemp *et al* (1997)

Internal/external environment	Management style	Policies	Organization structure	Process of change
External environment: Competitors; Employee resourcing; Development and retention. Internal environment: Customer focus; Investment; The "fear" factor	Industrial relations; Management/ Worker relationship	Policies that may conflict with TQM: Human resource management; Financial; Maintenance; Manufacturing	Positioning of the quality function; Departmental, functional and shift boundaries; Communication; Job flexibility and cover; Supervisory structure	Improvement infrastructure;

4.4   SUMMARY

An analysis of the literature review about quality systems and TQM in construction was done to find key dimensions at play as shown in Appendix A.12. Further analysis was done to group these key dimensions within the Chapter Four high level literature review category. The following are these key dimensions:

- Awareness
- Clarity
- Collaboration
- Collective
- Complex
- Correct initial set-up
- Correct recruitment
- Correct systems
- Correct training
- Decision-making

- Dynamic

- Flexibility

- Hard work

- Holistic

- One-teaming

- Openness

- Simplicity

- Realistic

Further analysis of these key dimensions is in Chapter Seven.

This part of the literature review concludes that Western project managers need to address all of these key dimensions with a flexible and holistic way of management thinking as a lead on a PBIJV project in Asia and recognize the importance of TQM fundamentals in the Asian context to achieve project success.

CHAPTER FIVE – INTERNATIONAL JOINT VENTURES

5.1 INTRODUCTION

Chapters Two through to Four considered the importance of Western project managers in Asia to positively encourage project team integration with total communication on projects and the need to have a full range of hard and soft skills supported by a flexible and holistic way of management thinking mindful of cultural differences and recognizing that there is no one way of working to achieve project success. This chapter reviews literature about JVs, multi-national teams and the importance of integration, trust, information, communication and coordination on major projects done by PBIJVs, which tend to be large organizations and involve collaborations between companies of differing nationalities developed for a defined duration to often do megaprojects with the involvement of many key stakeholders. The culture of PBIJVs, as with the construction industry and projects, is unique and the control of them is complex due to their very nature. PBIJVs generally comprise of specialist expatriate knowledge workers within multi-national teams, which are globally dispersed. These reviews show that PBIJVs with their varying PBIJV partner cultures result in a project culture which is totally unique with difficulties to manage and achieve successful collaboration their inherent ambiguities, subcultures, conflicts, various national, professional and project cultures and need a holistic approach based on teamwork. The objective of this chapter is to explore the importance for project managers to have prior personal relevant experiences, in particular cross-cultural management and politics, and ways multi-national dispersed e-teams can be organized to achieve good collaboration, quick decision-making and PBIJV success. This exploration shows that to achieve PBIJV success project managers need to utilize return of personal experiences, in particular cross-cultural management and politics, and to organize their multi-national dispersed e-teams in accordance with a clear matrix of responsibilities based

upon the trust equation of computer-mediated ("**CM**") communication, competence, credibility, consistency, support, respect and honesty to achieve good collaboration. All of these efforts must be supported by the senior levels of the partners in terms of good partner selection, distributive justice ("**DJ**") and appropriate equity share to generate a reasonable balance between PBIJV control and trust to enable timely decision-making.

5.2　JOINT VENTURES

5.2.1　Introduction

Many projects around the world are too large, complex and risky for one entity to handle alone. A popular manner with which to handle such projects is through establishing alliances, joint ventures (**"JVs"**) and networks and have been popular in Asia, although many countries continue to restrict foreign ownership in certain industries such as infrastructure and finance (Ang *et al*: 2000). JVs have become a popular method of entry into foreign markets (Adobor: 2004) and have become the easiest way for foreign contractors to operate in domestic markets with host country construction companies (Raftery *et al*: 1998) and the most common way of entering a new foreign market and companies in Asian countries such as Thailand (Toews and McGregor: 1998), and China (Hung *et al*: 2002) actively seek JV partners that can bring financing, technical, marketing and management skills into their businesses.

5.2.2　Partnering and Joint Ventures

Partnering

Rethinking Construction stated that "partnering involves two or more organisations working together to improve performance through agreeing mutual objectives, devising a way for resolving any disputes and committing themselves to continuous improvement, measuring progress and sharing the gains". The whole process of building procurement should be integrated with

partnering as a basis (Tietz: 1999) wherever there are mutual benefits available to the partnering companies. However, the construction industry has taken longer than other industries for partnering to become an acceptable method of procurement due in the main to its fragmented nature (Baxendale and Pugh: 2002).

It is critical for companies to best ensure selection of the most appropriate partner for any given situation. Palles-Clark (1998) proposed the seven pillars of partnering and considered the following list offers typical selection criteria for assessing potential partners:

- ability of candidates to work co-operatively;
- ability to partner;
- understanding of the concept of partnering;
- management commitment to partnering (successful partnering requires a top down management decision);
- organization structure proposed to effect partnering;
- excellence of personnel management;
- quality of staff to be assigned to the task and their understanding of partnering;
- past experience of partnering;
- ability to integrate with other parties to a works project;
- perception of shared benefits;
- information systems and ability to communicate; and
- proposals for problem solving mechanisms.

Upon selecting a partner the form of partnering chosen has to be a practical arrangement. If the bedrock principle of partnering is founded upon the notion that contractual mechanisms are fundamentally adversarial in structure and entering into a partnering arrangement is in itself no substitute for a binding contract (Critchlow: 2000).

Joint ventures

The most popular form of partnering is through a consortium or JV. JVs can be defined as arrangements entered into by two or more companies, in which the partners share similar values and goals, in both a short- and long-term sense (Williams and Lilley: 1993) combine their assets and skills (Adobor: 2004) in a single undertaking (Haley: 1994 and Harrigan: 1986) to allow greater ease of work and cooperation towards achieving a common aim (Norwood and Mansfield: 1999), with a clearly defined business purpose and sharing the risks and profit/losses (Dalle and Potts: 1999) with a proportional share of dividend as compensation and representation on the board of directors (Glaister and Buckley: 1998) and having variations in the focus, risks, benefits and complexities across alliances (Kaufmann and O'Neill: 2007). JVs are a special form of alliance, which involve the creation of a separate organization, which share many of the characteristics of alliances and offer a flexible approach to business operations and can be structured in to suit the parties' needs (Haley: 1994).

Most typically JVs are temporary arrangements for the purpose of carrying out one project, albeit usually a major project (Dalle and Potts: 1999). Although a JV company is the most common form of organizational structure where two or more parties wish to establish and operate a jointly owned business, JV organization structures are not the easiest forms of organization to manage and operate (Dalle and Potts: 1999) but meet a real need in the world of major projects and make a substantial contribution to major project industries.

The fundamental reasons for forming JVs consist of the following (MPA: 2004):

- projects are becoming more complex and their scope is often broader;
- on some projects, no single supplier would have the resources and technical knowledge to do the project on its own;
- there is strength in numbers and JVs/alliances provide a greater pool

- of professional labour;
- the parties may offer complementary skills;
- risk can be spread and shared;
- on overseas projects, a host country partner may be an entry ticket to the work, providing local knowledge and an entrée into whole new markets; and
- by joining forces with its competitors, a company can reduce the number of bidders and whittle down the competition.

JVs tend to work only as long as each partner believes there are mutual benefits (Williams and Lilley: 1993). As such, the *joint* in JV needs to be properly appreciated by the concerned JV companies. In order that there are not any fundamental misunderstandings concerning the expectations of the JV companies about what competencies each JV party will bring to the project, it is essential that the JV parties agree upon a clear matrix of responsibilities and incorporate in the JV agreement. It is also essential for the JV parties to agree upon such details and sign a commercial arrangement in advance of proceeding with any JV activities.

JVs can adopt various partnering combinations to suit various opportunities, such as the following suggested by Hanvanich *et al* (2003):
- domestic JVs;
- home-country traditional IJVs;
- host-country traditional IJVs;
- cross-national IJVs; and
- tri-national IJVs.

International JVs

Geringer (1988) defined an international JV ("**IJV**") as a JV that involves at least two organizations that contribute equity and resources to a semi-autonomous legally separate entity and Geringer and Herbert (1989) further enhanced this definition and added that the JV must have at least one

partner headquartered outside the JV's country of operation. Reasons for seeking JV involvement in overseas projects, as presented in survey results by Norwood and Mansfield (1999), include the following motives for forming an IJV in the construction industry:

1. to participate in overseas projects;
2. to maintain an overseas presence particularly when the market was low in the UK;
3. to spread financial risk;
4. to bring in outside expertise;
5. to make use of existing geographical or regional base; and
6. to access greater manpower from a host country partner.

IJV projects with foreign participation tend to be large and continue to be an appealing organizational form for companies competing in the global marketplace (Hanvanich *et al*: 2003). For example, in 1995 IJV projects in Thailand accounted for 50% of all investments and 60% of all investment costs where the largest sums of money went to services and infrastructure projects (Toews and McGregor: 1998).

Advantages of JV arrangements

As an overview the fundamental advantages of the JV enterprise are generally perceived as threefold (Dalle and Potts: 1999):

- the maximum liability of shareholders in respect of the JV company is the amount paid up, or agreed to be paid up;
- the JV company structure operates within a familiar body of law and practice; and
- JV companies are better placed to raise external financing.

Despite the motives and the appeal associated with IJVs the failure rate of IJVs is high (Ozorhon *et al*: 2007) with foreign exchange and IJV partner objections being the major problems encountered by IJVs (Chen *et al*: 1994).

5.2.3 <u>Unified Project Approaches</u>

Project-based JVs

Project-based JVs (**"PBJVs"**) are collaborations developed for a defined duration to do major projects (Lorange *et al*: 1992). The construction industry is a typical user of PBJVs, which have the following fundamental characteristics (Hung *et al*: 2002):

- predetermined, limited life span;

- activities are oriented towards well-defined objectives;

- JVs are terminated upon the completion of the given project;

- rapid decision-making;

- companies have less time to understand the local environment and qualify thoroughly all their potential partners; and

- potential for culture-related conflicts.

These fundamental PBJV characteristics differ from the traditional JV arrangement as shown in Table 5.1 and can result in more dynamic situations in a JV.

Table 5.1: Comparison of project-based and traditional JVs
Source: Hung *et al* (2002)

Area of comparison	Project-based JVs	Traditional JVs
Life span	Finite	Indefinite
Nature	Dissolving after project completion	On-going
Strategy planning	Short-term orientation	Long-term orientation
Time to rectify default	Within contact period	On-going process
Decision making	Relatively fast	Relatively slow
Management style	Task oriented	Business oriented
Partner relationship	Short-term orientation	Long-term orientation
Information flow requirement	Must be quick	On-going process
Product/service improvement	Defined by contract	On-going process
Control	Hierarchy	Team work
Primary objective	Completion of project on time	Business objectives
Potential benefits	Possible win-lose situation	Win-win situation

Project-based IJVs

Similar to PBJVs, project-based IJVs (**"PBIJVs"**) are collaborations developed for a defined duration to do major international projects. Such PBIJVs are particularly prevalent on large-scale international investment projects such as the Check Lap Kok Airport in Hong Kong, which traditionally require a strictly task oriented management style. PBIJVs exhibit several unique characteristics, such as time constraints, which make performance evaluation somewhat different from that of standard types of JVs. In addition, there are regularly inconsistencies in management style between JV partners can be a key issue in failure in PBJVs (Hung *et al*: 2002).

The mutual benefits for all concerned through the synergies of such one-off project partnering relationships can achieve savings of between 2-10% compared to traditional approaches, while ongoing strategic partnerships can realize savings of more than 30% (Berry: 1995).

5.2.4 <u>International Joint Venture Control and Culture</u>

Setting up an IJV

The appropriate manner in which to control an IJV is dependant in part to the cultures of the partners and the external and internal environment. The fundamentals of the IJV arrangement should be clearly presented, understood and signed-off. A seminar by the MPA (2004) considered the following work needs to be carefully done at the front end of a JV and is probably essential to success:

- establish the parameters of the JV at the outlet – in other words, define your objectives and the project relationships;
- clarify your core values;
- decide the ownership split (50:50, 49:51, 25% in a four-party JV, etc.);
- understand the implications of the split – research suggests that 50:50 JVs are twice as likely to succeed as JVs with an unequal split;
- agree the work share;
- define the degree of risk transfer required;
- give project staff clear leadership and guidance from the very start;

- keep the customer in the loop;

- anticipate success but provide for failure;

- get a good deadlock resolution structure in place;

- select the right people within the organisations to work on the project – you can mould the project culture but you cannot change the culture of the parent organisations; and

- if you have to compromise, think it through clearly – know what you are signing up to.

Partner selection

JVs can be badly affected by un-cooperative behaviour of partners, so the selection of an appropriate partner is of paramount importance if a JV is to succeed (Williams and Lilley: 1993). Ang *et al* (2000) highlighted the three following guidelines for choosing the right partners:

- compatibility;

- competencies; and

- commitment.

The results of the survey by Dalle and Potts (1999) indicated the following criteria, listed in order of significance, as being important when selecting a JV partner:

- ability, experience and skills;

- financial suitability;

- similar business philosophy and concepts;

- strength of partner's willingness to form a JV;

- spoken language; and

- competiveness gained/resources/track record.

Williams and Lilley (1993) considered the following further perspectives need to be taken into account for JV partner selection:

- strategic compatibility;

- relative company size;

- trust; and

- mutual dependency.

The foreign partner should also have good connections. Wang *et al* (1998: 354) noted that Tretiak and Holzmann (1993) considered for an IJV in China "a well-connected Chinese chairman can be invaluable to smooth JV dealing with the local bureaucracy".

Fundamental characteristics of JV arrangements

Ownership on IJVs is either symmetric with a 50:50 split or asymmetric with a non-split or majority-minority (Luo: 2009a). Such fundamental characteristics of JV arrangements can be dependent upon location with fundamental JV arrangement differences between developed and developing countries (Chen *et al*: 1994).

Benefits of JV arrangements

The results of the survey by Dalle and Potts (1999) showed that contractors offered the following benefits (listed in order of importance):

- increased the range of expertise;

- risks could be shared;

- liabilities could be shared;

- increased performance on site;

- gained entry to overseas market; and

- improved co-ordination.

Ang *et al* (2000) stated that the benefits of alliances must be balanced against their costs, which can be summarized as follows:

- loss of information and technology to partners;

- loss of speed and independence through having to coordinate activities with partners; and

- significant administration and other costs of coordinating activities with partners.

Also, companies will seek to enter into an IJV with a company that has one or more of the following characteristics: industry knowledge, visible external success, or local power or 'local connections' (Ascot: 1994) where the following key issues must be properly addressed and understood to ensure establishing a JV is beneficial:

- industry knowledge - Because the partner is strong locally in the same business segment there will often be automatic reluctance or even resentment when asked to adjust to new ways.

- success - When evaluating potential partners on the basis of their success, stop for a moment and think about why they want to join hands with you.

Organisation structure of JVs

One of the most important stages for a JV is initial organizational stage and it is essential to properly support this critical stage to best ensure a successful JV (Spekman *et al*: 1996).

JVs usually have a hybrid matrix organizational structure, which differs from the organizational features of the partners involved. These JVs develop their own culture values, which are imported from the individual partners. This process of building a new organizational culture can lead to many conflicts and at worst can result in JV failure (Swierczek: 1994). Figure 5.1 shows the IJV project structure for a large residential and commercial development comprising a floor area of 350,000 m², which included five residential towers with 2,200 apartments and an eight-storey shopping mall in Hong Kong.

JV management control

Wang *et al* (1998: 351) cited Schaan (1983: 57) who defined JV control as "the process through which a parent company ensures that the way a JV is managed conforms to its own interest".

(45% share)   (25% share)   (10% share)   (15% share)   (5% share)

| Client Partner-A | Client Partner-B | Client Partner-C | Client Partner-D | Client Partner-E |

Client JV Organisation

Project Sponsor Director

Senior Manager

Project Manager

| Contractor Partner-a | Contractor Partner-b |

60% share   40% share

Contractor JV Organisation

Construction Project Manager

—— Responsibility line

········ Reporting line

Assistant Construction Project Manager

Project Team

Figure 5.1: IJV project structure

Source: Chan (2008)

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However, there are two fundamental tiers of JV control. Firstly, there is control at shareholder level and secondly at management level. Ordinarily, management control is the process by which an organization influences its subunits and members to behave in ways that lead to attainment of organizational objectives (Glaister and Buckley: 1998).

However, such a definition of control is more problematic in JVs because two or more partners can influence JV activities (Yan and Gray: 1994).

The basic method for JV partners to agree upon management control between the partners is by reference to percentage of equity ownership (Chalos: 1998), where traditionally, the main mechanism of JV control is through majority ownership or voting control by virtue of majority equity share holdings (Glaister and Buckley: 1998). One simple reason for high levels of equity ownership by foreign partners is to guard against potential opportunistic behaviour by host country partners. However, foreign partners need to ensure the host country partners have a high enough level of ownership to generate an incentive for them to properly contribute to the IJV (Lu and Hébert: 2005).

Wang *et al* (1998) considered there are the following several mechanisms for controlling a JV so as to support the strategic objectives of the partners:
- majority shareholdings;
- right to appoint personnel to key positions;
- board meetings;
- limit issues requiring the unanimous agreement of the board members;
- capital budgeting and resource allocation;
- policies and procedures;
- use of technology and management advantages; and
- JV control – performance relationship.

The more responsibility taken on-board by IJV partners, the more control they will have, which provides better perceptions of IJV performance (Glaister and Buckley: 1998), which in turn is a significant determinant of project performance. However, whilst IJV majority equity leads to strategic control, Selekler-Gökşen and Uysal-Tezölmez (2007) argued its impact on operational control is less certain. They also argued, whilst majority representation on an IJV Board can result in controlling not only the managers appointed by the other partners but also the other partners such representation does not in itself have a significant relationship with either strategic or operational control.

There are also other methods to achieve a certain amount of JV control such as the following (Behrman: 1970 and Friedman and Beguin: 1971):

- having the right to veto the decisions of JV managers;
- representation in JV management bodies; and
- special agreements relating to technology or management services.

The more critical resources an IJV partner can position into an IJV, the more powerful they can become, leading to the possibility to exert more control upon the other partners if needed (Yan and Gray: 2001). So, the placement or appointment of key personnel is essential for a JV partner to maintain control. JV partners can influence important JV activities by having the right to appoint key JV managers (Wang *et al*: 1998). Such recruitment and placement of project staff by a JV partner into key management positions in a JV is a crucial strategic control mechanism (Geringer and Frayne: 1990). The JV shareholding of a partner should drive the level of management control agreed in the JV arrangement. Dependent upon this shareholding percentage partners need to consider the control mechanisms to be agreed in the JV arrangement. Also, the existence of foreign managers can lead to a decrease in host country partner strategic and operational control (Selekler-Gökşen and Uysal-Tezölmez: 2007).

Wang *et al* (1998) viewed that for companies with a majority stake, the following are the three most important control mechanisms:

- the right to appoint the general manager;
- majority shareholding; and
- the right to appoint personnel to critical functional areas.

For companies with an equal stake, the following are the three most important control mechanisms:

- the right to appoint the general manager;
- the right to appoint the functional manager; and
- the setting up of policies and procedures.

And for companies with a minority stake, the following are the three most important control mechanisms:

- auditing;
- the right to appoint the general manager; and
- the setting up of policies and procedures.

The findings in a study by Wang *et al* (1998) showed that regardless of the degree of shareholding, Singaporean JV partners considered the following to be important control mechanisms for JVs in China:

- the right to appoint the general manager;
- the right to appoint personnel to critical functional areas;
- using monthly or quarterly reports; and
- the setting up of a spending authorization limit.

JV management problems

Many companies are not truly prepared to accept the *joint* aspect of JVs, and they should admit this from the start. In far too many cases, the management of the foreign partner or the more powerful partner begin thinking of the JV as a fully-owned subsidiary the day after incorporation. This remains the fastest way to conflict (Ascot: 1994).

Many problems within JV projects are generated by internal multi-level influences being forced into the project agenda leading to organizational conflicts and ultimate JV failure. Such problems are exacerbated when foreign companies enter new territories because they are at a disadvantage compared with their host country counterparts (Lu and Hébert: 2005). Indeed, much of the literature on IJV performance has reported a success rate of 50% or so (Pak *et al*: 2009). When challenged by internal agendas and priorities, managers seconded to JVs do not see the project as their prime responsibility. The criticality of such a potential situation needs to be addressed from the outset of a project by allowing projects an appropriate degree of autonomy so that the interests of the project are served (Hawkins and Rajagopal: 2005).

Without team ethic between the various JV personnel the project will fail, so it is critical that teamwork between JV partners is sponsored by senior management. Teamwork requires project goals to be consistent between these JV personnel without interference from the home office. Also, the attitude of JV personnel needs to be positive and consist of a mindset that home office influences should not override ultimate project success for the JV. Although attitudinal differences do not necessarily mean that an IJV will fail they do mean that greater effort will be needed to understand and accommodate the point of view of each JV partner (Cray and Mallory: 1998).

Key incompatibilities between JV partner points of view can cause major tensions. This is particularly so when a quick decision-making apparatus is required which is not the niche market for the bureaucratic environment of many large companies (Williams and Lilley: 1993). This type of problem is commonplace on PBIJV megaprojects. Other major JV problems were highlighted in a survey by Dalle and Potts (1999), which showed the following four main JV problem factors:

- lack of strong and effective leadership;

- the preliminary agreement;

- the partner selection; and

- lack of trust between partners.

The management of PBIJVs is in itself a problem with its dispersed teams with many communications within a virtual organization partially linked by communication technology (Hawkins and Rajagopal: 2005). However, above all other management problems is the issue of communication and feedback where language and culture can become insurmountable barriers to project success (Williams and Lilley: 1993). Although language in itself can be imprecise, as it is only as good as the person delivering the message, it conveys valuable information and despite the vagueness inherent in natural language, humans can generally understand each other (Baloi and Price: 2003) provided the language in question is their mother-tongue. In an international environment where different nationalities with differing mother-tongues are involved language problems can greatly effect both spoken and written situations where the behaviour of managers in a JV can also be influenced by policies and reporting requirements, and unless such requirements are clearly understood by JV management there will not be prompt and accurate reporting (Schaan: 1988).

Company politics

The influence of company politics on JV management activities cannot be underestimated. JV managers need to have the ability to handle political issues, where such political skills can be defined as the ability to use influence tactics to achieve both personal and organizational-related goals. The greater the JV manager's political skills, particularly related to influence tactics, the greater the likelihood of a successful tenure on the project and as such project success, provided the political skills are used for the good of the project (Adobor: 2004).

The more partners involved in a JV the more likelihood there is for differing company politics to be at play. There are the following four conditions that promote factionalism and political influence activity between partners in JVs (Pearce: 1997):

- goal incongruence;
- decision-making philosophies;
- power asymmetry; and
- parent company based reward systems.

Cultural issues

Cultures are human-made (Watson: 1994) and cause many issues between people, many of which can result in insurmountable problems due to intransigence, but individuals from different countries and different cultures can work together, and differing points-of-view on megaprojects have the potential to provide effective and creative solutions (Shore and Cross: 2005). Despite such opportunities, many megaprojects have failed because foreigners approach situations based on the assumption that what worked at home will work anywhere (Hawkins and Rajagopal: 2005), and where many JV partners from the West perceive themselves to be superior to their Asian counterparts and such dominance of strong cultures presents a challenge to others wishing to contribute (Shore and Cross: 2005). For example, as stated by Chu (1994: 114), "the aggressive, high-tone, pushy, go-getting manner is considered a great attribute in the American business world. However, when applied in certain parts of Asia, it is considered repulsive".

There is generally the mindset that when comparing two cultures the focus is on differences rather than similarities because to find similarities would be a surprise (Bstieler and Hemmert: 2008). Nonetheless, due consideration of cultural differences is required because culture plays a significant part in determining the shape of IJVs, the partners involved and, most importantly, their chances of success (Cray and Mallory: 1998) and if not properly addressed will result in a serious roadblock to developing a successful

project (Adobor: 2004). IJVs established in culturally distant countries need to recognize and address the large knowledge barriers at play regarding local culture and social norms (Lu and Hébert: 2005).

Eldridge and Corombine (1974: 89) argued that "the culture of an organisation refers to the unique configuration of norms, values, beliefs, ways of behaving and so on that characterise the manner in which groups and individuals combine to get things done. The distinctiveness of a particular organisation is intimately bound up with its history and the character-building effects of past decisions and past leader". Drennan (1992: 3) considered that a more concise way of expressing organizational culture is more simply expressed by saying that "culture is 'how things are done around here'. It is what is typical of the organisation, the habits, the prevailing attitudes, the frowned-upon pattern of accepted and expected behaviour". For a PBIJV, what is important is to ensure that an organization's culture matches the environment in which it operates (McCabe: 1998).

Culture is an important issue for JVs because it is a major source of failure. The worldwide trends of JVs are increasing, but with very unsatisfactory results. In a study of 110 JVs, 50% of all JVs between US and Asian companies failed (Swierczek: 1994). The results of the survey by Dalle and Potts (1999) found that the majority of problems encountered on IJVs with overseas contractors arose from cultural difficulties which differ throughout the world.

Hanvanich *et al* (2003: 2) noted that Makino and Beamish (1998) pointed out that "cultural difference could be defined at national level and at the partner level and Parkhe (1991) theorized that cultural differences at both national and partner levels hinder alliances". Cultural differences include the following:

- difference in culture of partners, difference in cultures due to the location in which the JV operates or both (Hanvanich *et al*: 2003);

- different nationalities often symbolize different patterns of behaving and believing, and different cognitive perspectives for interpreting the world (Black and Mendenhall: 1990);

- cultural distance between partners has been found to complicate their ability to correctly interpret the behaviour of the partner (Kaufmann and O'Neill: 2007);

- different management styles and knowledge management practices, which could lead to misunderstandings about the local market, prolonging or reducing knowledge acquisition in the host-country market (Hanvanich *et al*: 2003);

- different management issues such as management structure and style, geographic work distribution, budgetary commitment, family and education, and pay (Shore and Cross: 2005);

- differences in operating approaches often result from cultural biases, and managers, not conscious of the existence of this biases, may take it for granted that there is a 'right' way to do things (Williams and Lilley: 1993); and

- project personnel's punctuality, deference to authority, non-verbal behaviour; and work ethic (Ramaprasad and Prakash: 2003).

These cultural differences can over time increasingly create ambiguities and lead to mistrust in a partnership and result to ever increasing conflict (Hanvanich *et al*: 2003) and impede the development of rapport and understanding between JV partners (Williams and Lilley: 1993). Also, PBIJVs are one-offs where differing cultures consider time in differing ways. Agreeing on short-term, medium-term and long-term goals is a routine part of corporate planning. In JVs, however, one must carefully agree on the definition of short, medium and long-term. To most American corporations the short-term is one to two years. To most Asian businesses the short-term could easily be five years or longer (Ascot: 1994).

All of the potential cultural differences should be addressed with a sensitive approach to cultural diversity (Hall and Jaggar: 1998) from the outset of considering involvement in a PBIJV and a sufficient amount of time and attention should be paid to identify the cultural differences, which could lead to problems, during the JV negotiation stage (Pheng and Leong: 2000).

Project culture

Company culture is vital for a successful business or enterprise, where employees identify with the objectives of the company, share a common aim and move closer towards a climate of trust and commitment (Stockdale: 1998b). However, construction is about temporary organizations where culture also develops at a project level (Grisham: 2008). Van Marrewijk *et al* (2008: 592) referred to Hastings (1995), Henrie and Sousa-Poza (2005) and Jaafari (2003) in stating that "increasingly, project culture is related to successful collaboration in complex projects".

Such complex projects with their varying JV partner cultures can result in a project culture which is totally unique with difficulties to manage and achieve successful collaboration with their inherent ambiguities, subcultures, conflicts, various national, professional and project cultures (Van Marrewijk and Veenswijk: 2006 and Van Maanen and Barley: 1985). It is clearly evident that cultural differences permeate every aspect of the construction process such as the following (Hall and Jaggar: 1998):

- working outside the domestic environment:
- in and out of the office;
- on and off site; and
- at the pre- and post-contract stage.

Cross-cultural management skills

It is notoriously difficult to manage IJVs (Kaufmann and O'Neill: 2007) in particular managing all of these unique project factors which have to co-exist. This requires cross-cultural management skills and the ability to adapt to the

challenges of working in a multi-cultural project environment will more than likely result in project management success (Adobor: 2004).

National culture plays an important role in how project managers think and make decisions as highlighted by the following six dimensions of culture, a slight variant to the Hofstede dimensions, which affects behaviour (Shore and Cross: 2005):

- power distance;
- uncertainty avoidance;
- individualism;
- performance orientation;
- future orientation; and
- humane treatment.

As well as having an unbiased understanding of their own national culture, project managers need to have knowledge of the country culture and business systems of JV partners (Adobor: 2004). Thereafter, they need to look beyond stereotypical cultural views and discover the real beliefs of project team members (Grisham: 2008), this is particularly important when the workforce is a multi-cultural workforce and not homogeneous (Kaufmann and O'Neill: 2007), although there can still be significant differences between company cultures within the same country (Pokora and Hastings: 1995).

In times of conflict, and there will undoubtedly be times of conflict within PBIJVs, the project manager needs to understand that when country and project cultures come into conflict, the first is likely to override values in the second (Pang *et al*: 1998). Whilst it is a general rule of thumb in recent times for Western companies not to impose their ways of working on their international partners to avoid unnecessary conflict because what one culture may consider to be unorthodox behaviour another may well consider normal (Hawkins and Rajagopal: 2005). However, this view is not universal. Indeed, the Japanese take an opposite position by introducing Japanese culture to

employees, suppliers, partners and customers wherever they may venture (Pang *et al*: 1998).

5.3 MULTI-NATIONAL TEAMS

5.3.1 <u>Introduction</u>

As highlighted in Section 4.3.5 individuals cannot easily be converted into an integrated mass of people and considered a team. Two key obstacles to establishing teams on PBIJV megaprojects are the state of legal independence between companies and their traditional methods of working individually (Juran: 1988). These fundamentals are further compounded on a PBIJV by the fact of the numerous nationalities, various company and national cultures at play, and the new working environment.

5.3.2 <u>Working Overseas</u>

The vacancies for construction industry people to work beyond their homeland are significant. This has been particularly so in the Middle East since the seventies. But to work overseas is difficult and can lead to many problems for the foreigner and the hiring company alike.

Many megaprojects are led by Western project managers working overseas. These expatriates, many with their family in tow, have to both work and live in an alien environment. To survive one has to adapt to the surroundings and learn the environmental rules and norms from the behaviour of others and the mass media (Tan and Chong: 2003). However, it's not breaking news to say that the only real way to learn about another country with its differing language, customs, or laws is to reside there (Machiavelli: 1515).

Unfortunately, megaproject project managers do not have an induction period to learn about their new environment and can encounter many problems which can lead to a certain degree of scepticism over the abilities of Western

managers to do business in foreign climes, such as Asia (Davis and Schulte: 1997), and to judge who to contact, or how much information to divulge to potential partners (Haley *et al*: 1999).

5.3.3 <u>Knowledge Workers</u>

Knowledge workers

Many senior management expatriates are knowledge workers with expertise in project management skills. IJVs throughout the world employ such expatriates to provide these specialist services such as engineering, architectural, site supervision, tradesmen, contractual, commercial and planning. These expatriates need to be mobile and know more about their job than their project manager boss does (Drucker: 1999). As such all of these expatriates are generally selected based on their high level of competence (Harrison *et al*: 1996). However, far more than technical competence is generally required to be an effective and value-added expatriate. For example, expatriate personality characteristics generally need to include (Harrison *et al*: 1996):

- broad- or open-mindedness and cultural empathy;
- creativity and a sense of humour;
- integrity and sincerity; and
- stress tolerance.

Also, the results of a study by Harrison *et al* (1996) into expatriates provided evidence that self-efficacy and self-monitoring are key expatriate attributes to assist with cross-cultural adjustment and taking the time to understand a new culture, respectively (Harrison *et al*: 1996), where high self-efficacy is defined as having beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations (Bandura: 1997) and high self-monitoring is defined as an individual's ability to adjust one's behaviour to external, situational factors (Snyder: 1974).

Megaprojects and their organisations require exceptionally efficient knowledge management, if they are to learn from their experiences where successful project management is based on accumulated knowledge combined with the individual and collective competencies of these knowledge workers (Kasvi *et al*: 2003). The collaborative nature of such multidisciplinary project teams is essential in creating new knowledge, there is no room for project tasks being executed in parallel or in sequence, or by certain project team members in isolation (Fong: 2003).

Return of experience

The reliance of expatriate project managers upon past experiences on IJVs and in particular with regard to contextual ambiguity is an important factor for project success (Dow: 2006). These past experiences greatly assist in enabling adaption to different cultures, managerial styles and organizational standards (Luo: 2009a). However, a study by Kim and Slocum (2008) stressed that previous international experiences *per se* does not necessarily suffice and the type of international experience should be carefully considered to best ensure a good fit with both the project type and location. Indeed, the more experience senior project management people have on IJVs, the more likely it will be they can generate better performance from the project team as well as being more effective than management without IJV experience. However, without trust between partners they will not be able to achieve optimum effectiveness (Ng *et al*: 2007).

Return of experience involves tacit knowledge of knowledge workers, which is what the knowledge worker knows as derived from experience and the embodiment of beliefs and values (Polanyi: 1996). So often return of experience follows the knowledge worker rather than the organization.

On PBIJVs it is difficult for the foreign partner to acquire and transfer knowledge to other projects since the management style and knowledge processes are inclined to follow the host-country partner's existing practices

(Hanvanich *et al*: 2003). However, the return of experience database should still be maintained to include all experiences to assist future situations.

Such high level return of experience can provide greater management focus on the real issues to be considered in the pursuit of improved project performance.

5.3.4 People and Project Teams

People

A high performance project team in a relatively culturally homogeneous environment on 'home soil' will not naturally assume the high level of performance when placed in a culturally diverse environment on 'foreign soil' (Cascio and Shurygailo: 2003). People do not think alike (Hales: 2008a) and because everyone is different it is inevitable when a group of people get together there will be differences of opinion (Hawkins and Rajagopal: 2005) because the nature of people is variable, and whilst it is easy to persuade them, it is difficult to fix them in that persuasion (Machiavelli: 1515). It is common on megaprojects to have major disputes which arise based simply on personal preferences of two opposing individuals (Hawkins and Rajagopal: 2005) because people tend to think and feel exclusively in a romantic mode, which is primarily inspirational, imaginative and intuitive or a classic mode based on reason and laws (Pirsig: 1999). Although the main reason for differences is that JV partner employees are likely to act in ways which are acceptable to their parent companies (Killing: 1983). Such differences which could lead to conflict must be nipped in the bud through clear and understanding people management.

Not only do different people have to managed differently but different groups of people in the project team have to be managed differently, and that same group of people even have to be managed differently at different times (Drucker: 1999). It is important to meet the needs of other people on PBIJVs, as culture is a crucial element for management (McCabe: 1998).

Strategic Human Resource Management

From a macro perspective, people, rather than money, develop an economy (Drucker and Nakauchi: 1997). Similarly, from a micro perspective people are the key to business success and some companies recognize as such. Richard Branson considers people as Virgin's greatest asset and this is underscored with a business maxim of staff first, customers second, and shareholders third (Kets de Vries: 1999). However, Seijts and Gandz (2009) argued that the cliché of CEOs saying 'people are our most important asset' is rarely reflected in action and that they say one thing, but do another. But an organization is its people and when properly empowered to experiment they will find their own ways to improve the quality of performance (Stitt: 2002).

Similarly, success or failure of a JV is inevitably dependent upon people, where the key people must have integrity, enthusiasm and humour (Kets de Vries: 1999). In a seminar presentation by the MPA (2007a), Seiger examined the impact people can have on their organisations if they adopt or work towards the following principles for success:

- define your goal;
- create a flexible strategy;
- have confidence;
- overcome fear of failure;
- motivation;
- the need to be appreciated; and
- celebrate success.

If a company considers its people as a key asset it would be appropriate to have an effective management system in place. Historically, as opposed to the personnel management model preferred in the ninities, which is workforce-centred, human resource management ("**HRM**") has evolved and

is aimed at meeting management's human resource needs (Loosemore *et al*: 2005).

In South Korea, there was also been an evolution away from the patriarchal employee relations system towards paternalistic HRM within an overall patriarchal system (Loosemore *et al*: 2005). Storey (1993) compared personnel management and HRM and identified the four following areas of difference:

- beliefs and assumptions;
- strategic aspects;
- line management; and
- key levers.

Storey (1993) argued HRM was a process that aligned the needs of the company's key asset, its people, and the needs of the company. However, HRM has had its critics. Sisson (1994) argued that *soft* HRM language is nothing but just a code for a *hard* HRM approach. Indeed. for many managers in construction, HRM is not seen as a strategic-level activity at all. Moreover, employees and employers have little loyalty towards each other in construction (Dainty and Loosemore: 2012) and human resource issues are often outside the remit of project managers (Dainty *et al*: 2007). Nonetheless, the potential for HRM to become a corporate strategic strength and provide a competitive advantage in the long-term has it supporters with its emphasis on a common goal between corporate and human resource objectives and the importance of people (Loosemore *et al*: 2005).

Guest (1987) referred to strategic HRM ("**SHRM**") as a set of practices designed to maximise organisational integration, employee commitment, flexibility and quality of work. The following SHRM models gained widespread acceptance during the nineties (Loosemore *et al*: 2005):

- the Michigan Model;
- the Harvard Model; and

- the Warwick Model.

Firstly, the Michigan Model treats the SHRM function as a closed system and is based upon the interaction of selection, appraisal, rewards and development. This Model has been criticised due to its closed system and by ignoring the external environment. Secondly, the Harvard Model is an open-system model and acknowledges the influence of situational factors (the environment) and stakeholders. However, the model has limitations as it does not explain how the four HRM policy chores of employee influence, human resource flow, reward systems and work systems are influenced by the situational factors and stakeholders. Unlike the first two models, which are US-based, the third model, the Warwick Model is based upon European traditions and management styles. The Warwick Model importantly incorporates culture and business outputs, including *soft* elements, within the main headings of its overall framework of outer context, inner context, business strategy context, HRM context and HRM content (Loosemore *et al*: 2005).

Whilst these three SHRM models have proven to be controversial they do at least highlight the difficulties faced by HRM by incorporating varying degrees of SHRM factors (Loosemore *et al*: 2005). According to Anthony *et al* (1996), SHRM has the following six key characteristics:

- recoginises the outside environment;
- recognises competition and labour market dynamics;
- has a long-range focus;
- has a decision-making focus;
- considers all stakeholders; and
- is integrated with corporate strategy.

Loosemore *et al* (2005: 304) argued that "there is an absolute necessity to place SHRM issues at the centre of decision-making". However, not many construction companies appear to have HRM representation at board level.

Construction companies need to look to the future when formulating SHRM policies and should to consider the following (Loosemore *et al*: 2005):

- changing demographics and workforce composition;
- the competitive labour market and the need for diversity;
- increasing performance expectations and the *Respect for People* agenda;
- new expectations of the employment relationship; and
- globalisation.

SHRM is about taking the longer term perspective of people issues with a focus on structure, culture, effectiveness and performance, matching resources to future requirements and the management of change (Armstrong: 1996). Loosemore *et al* (2005) argued that SHRM is of increasing importance with the onset of globalisation construction to improve long-term sustainability and growth.

As personnel management shifted to HRM and HRM shifted to SHRM, SHRM is likewise evolving. Loosemore *et al* (2005) argued that SHRM is a clear acknowledgement that corporate and human resource objectives should be inexorably entwined and not in conflict with education playing an important role to change attitudes, build relationships and ultimately organisational cultures. Dainty and Loosemore (2012: 5) argued that from an ethical standpoint, "rather than see people as resources to be optimally deployed to production tasks, this sees employees as possessing special attributes which need to be harnessed, nurtured, developed and understood". Dainty and Loosemore (2012: 8) also argued for a "more critical focus which *questions* rather than accepts existing HRM theory, which focuses on *individuals* rather than the firm, which focuses on *ethics* rather than performance, which is *contingent* rather than deterministic and which focuses on *best fit* rather than best practice".

It is all about people at all the various levels and the common corporate goal. People at all levels of a project need to feel valued. When people feel valued they can add value to the project (Tan and Chong: 2003). When value is added to the project, performance improves. Another people factor is that of feeling important by making yourself useful to others, which in turn requires reciprocity (Chu: 1994).

A fundamental aspect of the *soft* dimensions of TQM is HRM, which impacts how people are treated. HRM is often responsible for bringing people into an organization and establishing the criteria for performance, compensation and solving work-related and personal matters (Patro: 2013). The resource-based model of SHRM puts more emphasis on the *soft* HRM issues (Bratton and Gold, 1999), where SHRM is proactive, and central in aligning business strategy and improving organizational performance over the long-term (Cappelli and Singh: 1992, Purcell: 1995 and Kamoche: 1996). Moreover, employees are human assets and not just an overhead cost (Spikes: 1995).

HRM planning and staffing has a strategic role in so far as it can ensure that recruitment and selection procedures are in place, which will recruit people with goals and values that are a fit with the organization's TQM philosophy. Such a SHRM procedure within TQM requires HRM specialists to work closely with line managers, where HRM plays a strategic role. SHRM will need to ensure that employees are properly trained in TQM techniques, monitored and rewarded appropriately (Blackburn and Benson: 1995).

TQM and Human Resource Management

Chapter Four showed that the *soft* dimension of TQM is of great importance in achieving improved TQM implementation. As cited by Jiménez-Jiménez and Martínez-Costa (2009) in regard to *soft* TQM and the relationships between TQM and HRM:

- Human resources constitute an important part in the *soft* dimension of TQM (Giles and Williams: 1991).

- Poor implementation of TQM can be due to bad management of the HR function (Cardy and Dobbins: 1996).

- Leadership, HRM and customer orientation influence TQM to a large extent (Samson and Terziovski: 1999).

- Baldrige Award winning companies integrate HRM with other departments to support TQM (Caudron: 1993).

However, as also cited by Jiménez-Jiménez and Martínez-Costa (2009), it has been argued that traditional HRM is not compatible with TQM (Bayo-Moriones and Merino-Dias de Cerio: 2001 and Schonberger: 1994), as HRM is normally associated with fundamental personnel practices such as training, recruiting and compensation. TQM requires a particular approach to HRM strategy if it is to be implemented successfully (Snape *et al*: 1995) such as the alignment of HRM systems with quality goals (Palo and Padhi: 2005). As argued by Blackburn and Rosen (1993), HRM policies within TQM need to foster communications, teamwork, empowerment and commitment to quality with an appropriate reward system.

Yang (2006) argued that despite the importance of HRM in TQM there is relatively little empirical evidence to support this relationship. This fact is also observed in HRM literature (Jiménez-Jiménez and Martínez-Costa: 2009). Section 4.3 discussed about TQM in construction and in particular customer satisfaction, continuous improvement, training and education, teamwork, customer service and focus on customers. In this regard, Patro (2013) proposed the framework illustrated by Figure 5.2 to meet the challenges associated with HRM in implementing TQM.

Moreover, the research framework developed by Ooi *et al* (2009) to examine the effects of HRM and TQM practices on knowledge management (KM) activities is depicted in Figure 5.3 and shows the link between HRM and TQM principles and KM activities.

HRM Challenges	Strategic Role of HRM
✓ Globalization ✓ Motivating knowledge workers ✓ Employee satisfaction ✓ Communication barriers ✓ Vastness of organization ✓ Competitive markets ✓ Lack of proper authority and leadership ✓ Inadequate resources ✓ Lack of customer focus ✓ Lack of proper planning ✓ Lack of management commitment ✓ Deficiency of cultural dynamism	✓ Recruitment and Selection Process ✓ Training and Development ✓ Employee Involvement ✓ Recognition and Rewards ✓ Leadership and Top Management commitment ✓ Education and Communication ✓ Development of Total Quality People ✓ Maintain employee relations ✓ Performance Appraisal ✓ Accredited quality management system ✓ Measuring customer wants and satisfaction ✓ Quality control techniques

Figure 5.2: Challenges associated with HRM to implement TQM

Source: Patro (2013)
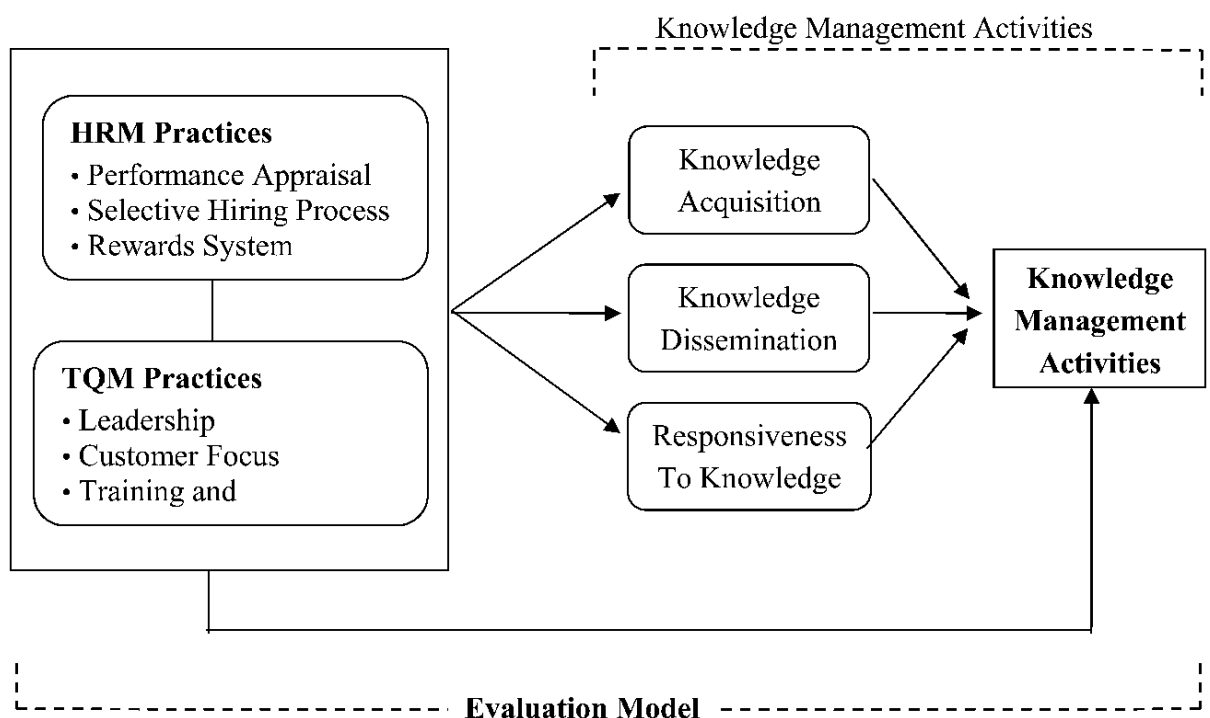
Figure 5.3: An integrated model of TQM and HRM on KM activities

Source: Ooi *et al* (2009)

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Jiménez-Jiménez and Martínez-Costa (2009) argued that TQM requires a set of internal HRM practices, which better fit to TQM. The study by Jiménez-Jiménez and Martínez-Costa (2009) is depicted by Table 5.2 and considered 33 HRM practices, all of which are commonly identified as enhancers of TQM and cover the most important areas of HRM: job design, teamwork, staffing, training, career management, performance appraisal and compensation.

Table 5.2: HRM practices congruent with a quality strategy
Source: Jiménez-Jiménez and Martínez-Costa (2009)

Practice	Characteristics
Empowerment and job definition	Formal planning of job task
	Broad job descriptions
	Flexibility
	Autonomy
	High participation
	High communication
Teamwork	Teamwork job orientation
	High teams autonomy
	High responsibility of their tasks
	Cross-functional teams
Staffing	External and internal recruitment
	Low formal selection processes, depending on specific job
	Polyvalence and high variety of competences
	Fit between the person and the organization and quality characteristics
	Moderate employment security
Training and development	Extensive and continuous at all levels
	Long-term orientation
	Polyvalence and broad variety of competences
	Group orientation
	Job rotation
	Career path definition
	Horizontal movement based
	Qualitative criteria promotion (changes openness, flexibility, innovation capacity …)
	Employee career path feedback
Performance appraisal	Continual performance appraisals
	Process (not results) orientation
	Group achievements
	Development and improvement goals
	Employee participation in performance appraisals
Compensation	Employee competences, abilities and flexibility determines salary
	Use of incentives
	Group orientation
	Equilibrium between financial and non-financial compensation

Project teams

Section 4.3.5 reviewed teamwork under a TQM lens and highlighted that whilst teamwork in Asia and the West are not the same, effective teamwork will be achieved only if team members are bound together by mutually established internal goals rather than just by contractual arrangements. Indeed, to "qualify as a team, members must interact; they must work toward common, specified goals that they value; and they must adapt to circumstances in order to reach these goals" (Cascio and Shurygailo: 2003, 362).

In this regard, project managers must recognize and support its key asset, which is the sum of its people: the project team. Projects are strictly a team effort and may often comprise of several different organizations (Hawkins and Rajagopal: 2005). The time available to organize a project team on a PBIJV and mould it into a cohesive team is minimal, so paying attention to the management of human resources and facilitating team-building exercises is vital for success on PBIJVs. A case study by Eskerod and Blichfeldt (2005) advocated the appointment of a formal mentor to assist new team members in becoming acquainted with the project.

The pursuit of optimum profit and profitability are the basis upon which shareholders view success and generating profits can only be achieved successfully on megaprojects if the project teams are given full responsibility and trust, and empowered to define their own objectives and limitations (Richards: 1995). If full responsibility is not given, accountability will be absent (Pheng and Omar: 1997). Although liberated the paradox is that the project team must be also be organized (Hawkins and Rajagopal: 2005).

Dispersed project teams

Five important lessons were concluded from a MPA seminar (MPA: 2006b) in that dispersed project teams tend to work best where:

- the members of the team knew each other previously or have the time

to get to know each other;

- there is a shared background of knowledge and assumptions;

- there is a common task focus and clear project identify;

- there are robust procedures for planning, executing, monitoring and improving; and

- technologies are used to support work, not for their own sake.

People involved in megaprojects are not only organisationally but also geographically dispersed and with their diverse backgrounds may speak several languages (Kasvi *et al*: 2003). This makes integrated team development an extremely difficult task.

Teamwork/Team mix

The formation of a team and employment on PBIJVs present a big problem on megaprojects where teams are created and disbanded rapidly in order to cope with bespoke project needs and fluctuating demand cycles (Raiden *et al*: 2004).

In a case study by Eskerod and Blichfeldt (2005) related to the hiring of team members especially for a project, the following was apparent:

- the group of new entrees included both people who had just completed their education and others who had experiences from similar projects in other companies;

- some new entrees were hired through advertisements in newspapers, while others were headhunted more directly for the project;

- current team members had informed some entrees on vacant positions in the project; and

- other entrees were recruited from within the permanent organization.

Project team composition is *not* static and project managers need to actively manage variations in project team compositions ensuing from team members' withdrawals from, and entrees into, the project (Eskerod and

Blichfeldt: 2005). Once the project manager has established the initial core project team it will deliver project success if supported properly and encouraged effectively because, despite the demands of complex PBIJV megaprojects, the more effective the team, the greater the challenges its members will be prepared to undertake to achieve project success, where the whole team takes ownership of the budget. But, in such a project team there is no room for a *prima donna* who for whatever reason takes a solo approach. A team game is not about having a group of top-class players on the field, what is required is a group of players with complementary skill sets resulting in better team interaction (Hawkins and Rajagopal: 2005).

Integrated project teams

The integration of the project activities of people in a dispersed project team is important for project success. One-teaming is required to achieve an integrated project team. One-teaming should mould high performers from various functional or organizational backgrounds to form an instant, well-functioning dynamic team and has been defined by Seijts and Gandz (2009) as requiring the following steps:

1. you must have good team leaders who know how to organize a team, task it properly, and manage team processes;

2. you must have employees who are prequalified and trained to be great team members, even though the teams of which they will be part have yet to be formed; and

3. the culture of the organization must fully support teamwork as a complement to individual performance.

Seijts and Gandz (2009) argued that there are the four following common themes to successful one-teaming:

- team leadership;

- team composition;

- extensive practice as a coherent team and as a potential member of an instant team; and

- clear team norms around communication and process.

Project team development

In an in-depth interview of a senior project manager on an Anglo/French JV construction project by Dalle and Potts (1999: 75), the project manager considered "the fundamental element for success of the JV was the people factor particularly team building". Team building will positively promote the development of the project team, which can be assisted at the outset through training courses to prepare people for working on JVs (Norwood and Mansfield: 1999).

The composition of project teams is impacted by the nature of people. As stated earlier, people are different and some people work best as team members, some work exceedingly well as coaches and mentors, and some are simply incompetent to be mentors. The project manager needs to accept the people as they are and play them to their strengths (Drucker: 1999). The development of the project team through training and coaching has to recognize there are probably half a dozen different ways to learn. For example, as stated by Drucker (1999), Alfred Sloan, who propelled GM to industry sales leadership by the early thirties and became the largest and most successful and profitable industrial enterprise the world had ever known, never took a note at a meeting. Indeed, there are people who learn by hearing themselves talk; there are people who learn by writing, there are people who learn by doing.

5.3.5 <u>Trust and Commitment</u>

Trust and commitment

A JV relationship is delicate at best and requires more than just a cordial relationship between the people from the various JV partners in the JV management team. The most important factor in the JV is to capture trust (Wong and Cheung: 2004) and the development of trust among partners is the most important factor for partnering to succeed (Black *et al*: 2000) where

such trust can be developed devoid of partners actually liking each other (Drucker: 1999). Such development of trust must be evident at the highest level in the JV because for a JV to succeed there needs to be a fundamental trust and commitment by each partner otherwise there is little hope in achieving a successful and fruitful working relationship (Williams and Lilley: 1993, 235) and enhance project performance (Kadefors: 2004).

Trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another (Rosseau *et al*: 1998), it is not a behaviour, and it is not equivalent to cooperation as cooperation does not necessarily require trust because it could be induced by coercion. Corporate confidentiality aside, when trust is present there are no thoughts of hidden agendas or underhand motives, so that there can be open discussions and exchange of information (Kadefors: 2004). However, trying to maintain open dialogue with partners and maintaining confidentiality is a challenge (Hawkins and Rajagopal: 2005).

A lack of trust between JV partners can lead to problems. In a survey by Dalle and Potts (1999), contractors recognized that they had experienced problems due to a lack of trust between the partners and some of the suggestions for improving the process included the following:

- getting to know the partner before entering into the agreement;
- allowing more time between the preliminary agreement and the project;
- considering a more open approach, e.g. involving open-book accounting policy; and
- having a good mix of staff in the project team.

It is important for the JV partners to get to know each other. The initial role of key JV individuals is to foster common understandings on the project and building trust between the JV partners. A technically competent manager will find it easier to build a trusting relationship with his or her counterparts on the

JV team than a non-competent manager where competence-based trust is when one party's belief in the ability of another to perform what is required of them (Adobor: 2004).

Trust and control

Trust is a very important aspect of cross-cultural JVs (Gale and Luo: 2004) where the fostering of common understandings on the project and building trust between the JV partners regarding cross-cultural sensitivity, openness, adaptability, learning ability and cultural familiarity is further complicated, in the case of PBIJVs, by the absolute need for language fluency between the partners (Adobor: 2004). It is normal for people to be comfortable with and as such to trust more the known rather than the unknown. It is such a mentality together with ease of same language, us-and-them, available information and reputation that lead companies to trust domestic partners more than foreign partners (Gulati: 1995).

The actual continuous display of cooperative behaviour should facilitate the building of trust in a JV (Adobor: 2004). This is even more likely when behaviour is observable (Kaufmann and O'Neill: 2007) as trust is based on emotion, not words, and as such is built on experience (Hawkins and Rajagopal: 2005). This development of trust based on emotion and experience is also sensitive to behavioural aspects such as shown respect and concern (Kadefors: 2004). Unfortunately, many PBIJVs include project team members in dispersed teams who are not located in-country and are unable to develop trust through FTF meetings. Also, the temporary nature of projects with their temporary working relationships presents obstacles to the development of trust and co-operation (Rooke and Seymour: 1995).

Section 5.2.4 highlighted how equity control could be used as a mechanism to prevent opportunistic behaviour on IJVs, but also noted there are other ways to approach such an issue, namely through trust. Such an approach would need to assume IJV partners are motivated to make the project a

success, thus paving the way to implement less controls associated with the prevention of opportunistic behaviour (de Man and Roijakkers: 2009). Chapter Two highlighted the traditionally adversarial nature of the construction industry and the need for trust and collaborative partnerships in a more modern construction industry. Indeed, foreign partners pursuing project controls based upon equity ownership can lead to mistrust, with host country partner comments such as – don't you trust me? – often commonplace when faced with certain project controls and procedures. Ng *et al* (2007) considered that trust between foreign and host country partners should facilitate cooperation, which should in turn give an IJV an improved chance of success. However, the Ng *et al* (2007) study found that the influence of trust was not greatly reflected in IJV performance even when the partners were culturally compatible.

Distributive justice and fairness

IJV partners should ensure a fair and equitable distribution of risk is at the core of IJV contracts. However, typically IJV partners are not in a position to include in finite detail every term and condition required in an IJV contract. The trust approach is required to overcome responsibility gaps there will undoubtedly be in contracts through the implementation of DJ and fairness, where equity is the basic norm of distributive fairness (Adams: 1966). Luo (2009b: 344) defined fairness as "the degree to which a party's real gains accord with its resource contribution, ongoing commitment to continuous cooperation, and risk or responsibility bearing throughout the course of the cooperative effort". The procedures that require fairness in IJV strategic decision-making processes involve fair procedures and fairness in resolving issues. Luo (2009a) believed that fair meant the related formal procedures and criteria used in the decision-making process need to be (i) transparent, adjustable and correctable; (ii) unbiased, representative and non-discriminatory to each party, and (iii) in accordance with contractual specifications. Lind and Tyler (1988) referred to procedural justice as the perceived fairness of formal procedures governing decision-making, where

fair treatment determines the reactions to decisions by partners and is therefore central to its behaviour.

Contracts provide an *ex ante* framework, which can guide cooperation between partners, whilst DJ provides an *ex post* way for overcoming ambiguities and limitations of contracts. Justice and contracts cannot substitute each other. It is important for IJVs to have both a well-specified contract and fair gain sharing environment (Luo: 2009b). In the specific setting of an IJV, Luo (2009b) defined DJ as "the extent to which interparty sharing of the rewards of cooperation is impartial in view of each party's contribution and commitment as well as its assumption of responsibility, risk and burden".

In *ex post* situations where there is uncertainty, a perceived fair allocation of outcomes can become an important complement to the contract and should support the development of a collaborative IJV environment. However, people often process information heuristically based upon their way of working. If this results in being fair rather than opportunistic, then such should be portrayed as cooperative or trustworthy, this should result in a more collaborative IJV environment. This also requires cross-cultural cooperation as IJV success needs commitment from the partners by working together to support DJ. Conversely, however, companies and people are rarely not opportunistic when participating in IJVs, but opportunism can be controlled if DJ is in place (Luo: 2009b). Nonetheless, cross-cultural awareness is required because actions of fairness by foreign partners could also be perceived as weakness and naivety by Asian counterparts.

Boundary spanners

The trust of project team members is important in order to get effective communications, everything on a project follows from trust (Grisham: 2008). In Figure 5.4 trust is pivotal, as stated by Grisham (2008: 74), "the wheel has trust as its hub, with conflict management as the lubricant for the wheel. The

spokes of the wheel are communication, empathy, power and transformation, and the rim of the wheel is culture".
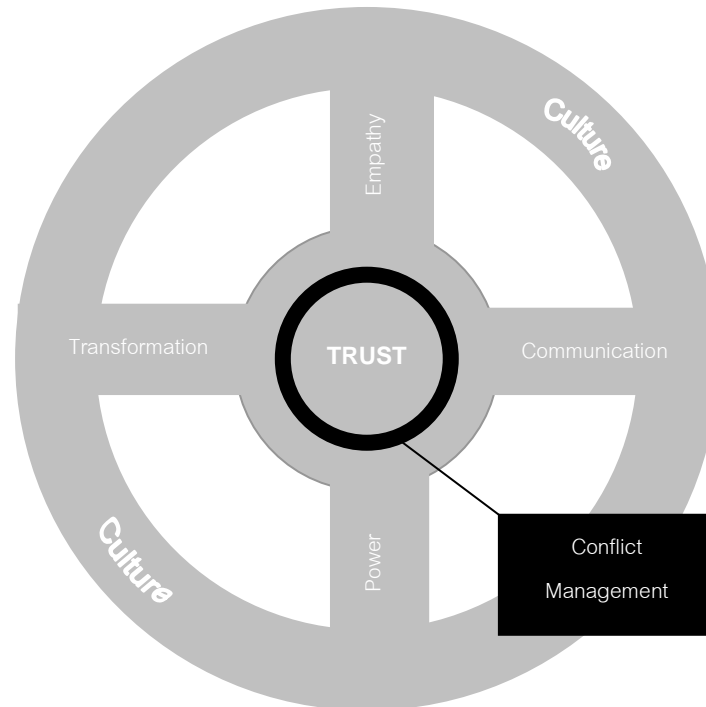
Figure 5.4: Cross cultural Leadership Intelligence Model
Source: Grisham (2008)

The full potential of an organization's people is best released through shared values and a culture of trust and empowerment, which encourages the involvement of everyone (EFQM: 1999) and which necessitates a holistic approach to people and their operational systems and organizational structure (Watson: 2004). As stated by Kets de Vries (1999: 168), "Branson, Barnevik, and Simon are acutely aware of the importance of trust as a corporate value and have made it a high priority. Communication, competence, credibility, consistency, support, respect, and honesty are key parts of the trust equation".

Section 2.3.6 highlighted that the primary role of project managers is to manage and direct teams, where *hard* and *soft* skills are required and communication is an essential project manager skill. Within a PBIJV, good coordination and conciliatory skills are very important and foreign partner's managers may well be required to act as boundary spanners between their company and the IJV to fulfil such a role (Selekler-Gökşen and Uysal-Tezölmez: 2007). As highlighted by Luo (2009a), boundary spanners on IJVs come from different national and cultural environments, which in turn can lead to disagreement over procedural justice and fairness. So, boundary spanners need to bridge the cultural divide to attain, at times, perceived fairness by facilitating organizational transactions and managing conflict or cooperation between partners. The findings of a study by Luo (2009a) into justice agreement in IJVs concluded the following:

- fair procedures used in establishing and governing an IJV triggers commitment and forbearance from each party;

- boundary spanners' experience in working in the current IJV and in managing a similar IJV in the past affects their perception of fairness. This perception also varies according to age, gender, and ethnicity; and

- validated the existence of multilevel contingencies that determine fairness disagreement.

Luo (2009a) continued by stating that boundary spanners should be trusted by all as the arbitrators of procedural fairness, the gatekeepers of inflows from the IJV to partner firms, and the representatives of outflows from partner firms to the IJV. These boundary spanners protect the integrity and well-being of the project, their company and the IJV, a pivotal and powerful position often at the very least directed by project managers.

5.4   INFORMATION, COMMUNICATION AND COORDINATION

5.4.1 <u>Introduction</u>

"Most communication plans provide copious amounts of lifeless data on who, when, and what needs to be done" (Hales: 2008a). However, good information through clear communication and coordination on projects is essential, even more so on PBIJV megaprojects between JV partners where cultural differences in JVs increase difficulties in communication and coordination (Kaufmann and O'Neill: 2007) and can impair information flow and organizational learning and lead to misunderstanding and mistrust (Hanvanich *et al*: 2003).

5.4.2 <u>Information, Communication and Coordination</u>

Information

Information on construction projects is mostly from clients, contractors and design consultants needed to do the job assigned (Pheng and Chuan: 2006). Such information may consist of drawings, specifications, project reports, mail, minutes of meetings and other raw data from which meaningful information must be gleaned by an educated study of such data (Jacques: 1996), which needs the ability to select the good facts from the bad ones (Pirsig: 1999). A key source of information on construction projects is within contract documents, which often have missing, conflicting and erroneous information resulting in major rework and customer dissatisfaction (Love *et al*: 2000).

Project managers on PBIJV complex megaprojects have to absorb voluminous amounts of data from reports for decision-making purposes. Data reporting needs to be transparent with key figures on the actual state of knowledge within the project (Van Donk and Riezebos: 2005) as the sharing of such information between partners is essential (The World Bank: 2005), and there is a developing trend in many countries to encourage students to

share information (Li and Yang: 1998), which bodes well when the students step into the work place.

The project management analysis and understanding of project reports should be relevant to understanding the way forward to achieve project success. Too often time is wasted where people try to promote their intellectual prowess by asking questions to accumulate personal knowledge which in turn burdens other project team members – more data, more trivia, more bytes to sift through in order to get to the present. The experienced project manager will dissect the information provided in reports and through return of experience immediately and spontaneously assesses the situation, because such wisdom sees the way things are in the present moment deeply and comprehensively (Bhikkhu: 1999).

In a survey by Edum-Fotwe *et al* (2000), 95% of the survey respondents believed, on a scale from *not important* through to *vital*, that information was indeed a vital resource in order to do their operational tasks in an effective and efficient manner. This is common sense. But information needs to be structured. As argued out by Sorensen (1999), one must focus on the simplicity of the system's structure and on intuitive and user-friendly interface and avoid information overload.

Communication

Communications can be provided verbally or in writing, where under normal circumstances communications on complex megaprojects need to be followed-up with written confirmation to all the relevant PBIJV people to avoid any misunderstandings. However, this may depend on the situation, for example, during the fabrication of the main jacket for the Fulmer North Sea Oil Field project communication in the yard at Bordeaux tended to be verbal rather than written due to the excellent workforce (Morris and Hough: 1993).

Communication needs to occupy a central place in an organisation (Barnard: 1938). Indeed, effective communications are required up, down and across the organization in a matrix configuration and are critical when dealing with project teams (Hawkins and Rajagopal: 2005) and constant communication is vital and certainly not a new idea, as stated by Pindur *et al* (1995: 62), "Fayol (1949) recommended regular meetings of department heads and liaison officers to improve co-ordination of organizational operations". Establishing a good level of communication is essential so that everyone understands the roles they are required to perform and an understanding of the project objectives and goals within a well-defined structured project framework, which needs to avoid parts of the project team working in silos because project failures can result from individuals or elements of the organization not being given the opportunity of having a rounded view of the project (Hawkins and Rajagopal: 2005). It is essential to de-fragment this type of situation through open communications and have the different professionals and black-box departments involved in the construction process to actively communicate and interact with one another (Pheng and Omar: 1997).

Successful communication, both structured and informal, is central to the partnering culture (Palles-Clark: 1998) but effective communications between PBIJV partners and international players such as design companies are more difficult to address due to the global nature of such a project with their remote offices. This type of global project set-up can result in virtual organizations which span the globe, involve many cultural boundaries and even language barriers. Such language issues in China are being addressed by Chinese partners on IJVs by ensuring all Chinese managers speak English (Su: 1999). The establishment of effective communication within teams is essential in managing and motivating dispersed teams on global projects, where deciding upon the necessary amount of personal interaction with remote offices is a challenge because an inadequate amount of FTF contact can cause small problems to develop into large ones (MPA: 2006b). This is even more important on IJVs where possible misunderstandings can simply arise from

language differences, a maximum amount of FTF communication, followed up in writing, is of benefit to the project and team building (Ling *et al*: 2009) and a common project language should be established (Kets de Vries: 1999). Despite advances in technology: people feel more comfortable and respond better when its FTF (Hawkins and Rajagopal: 2005).

As highlighted in Section 5.2.4, even communications between people talking the same language can lead to misunderstandings. Just as the word quality is hard to pin down, other words are ambiguous and can mean exactly what people want them to mean. One of the reasons communication can be so difficult is that the communicator uses a word to mean one thing while the recipient interprets it as something else (Harkin and Gunning: 1999).

It is important to have a sound communication network on such global projects and to provide the best possible environment for quick decision-making (Hawkins and Rajagopal: 2005) and the more the people in the PBIJVs know each other the better the communication which, results in more complete information; which in turn results in more complete control (Wang *et al*: 1998) because communication is not just about the constant flow of good information but about the quality and pattern of information flow (Morris and Hough: 1993).

With this complete control comes power, so effective project managers must place the issue of communication at the top of their list of concerns and decide what information is communicated to the various members of the project team on a need to know basis (Hawkins and Rajagopal: 2005).

Cross-cultural communications

The greater the cultural gap between the potential PBIJV partners, the more difficult it will be to achieve project success and the key issue of communication between partners must not be taken lightly. Problems can occur on PBIJVs as a result of differences between national or ethnic cultures,

including language, as well as differing corporate cultures (Williams and Lilley: 1993).

Different cultures communicate in different ways. Americans are not comfortable with silence and reserve and prefer to openly challenge issues during meetings and discussions where taking time for reflection is often seen as ineffective management. Whereas, in Japan, managers consider such public displays of openness as impulsive (Pheng and Leong: 2000).

IT communication

Information Technology ("**IT**") provides a sound platform for great benefits in both improved productivity and improved communications in the construction industry. The pace of change is fast with new technologies evolving the way people communicate in project environments (Lyons: 2009a). Computers are ideal for keeping dynamic records. However, the unreliability of document control systems does not support the view that companies are able to totally release their grasp of traditional methods of information collection and dissemination. The transition to electronic communication is most certainly not seamless due to the plethora of glitches that can occur with electronic document control software.

In general terms, the production and distribution of the typical range of project paper-based document is less entrenched in the construction industry than it was ten years ago, this is particularly so on PBIJV megaprojects. Yet even advocates for computer-based systems use the keyboard button to activate hard copy printing more times than not. However, resistance to such a change has to occur, as it is a necessary condition of survival (Handy: 1993). In an increasing way since the mid-nineties the world has been entreated on a daily basis to use the Web, e-mail and Internet to improve the productivity and competitiveness of the construction industry (Powell: 1995). But the majority of the construction industry workforce does not have both the will

and the knowledge to use and understand the available information technologies.

Coordination and centrality

According to Tam (1999: 107), "wasting of time and cost in construction projects can be traced back to poor coordination caused by inadequate information". The attainment of good coordination of communications and information on megaprojects is crucial to achieve project success and IT can greatly assist the attainment of good coordination. The project benefits gained from technological advances depend on the extent to which these technologies are used (Mitropoulos and Tatum: 1999) as IT systems left to their own devices will not result in good coordination on a megaproject. IT has immense potential to improve coordination between construction project players but the human factor must be attuned to and technically capable of benefiting from IT.

It is essential that computer system compatibility is achieved within the PBIJV for effective project coordination. If not, the results could be costly because differences in software such as that required for CAD can lead to both implementation and data transfer problems (Whyte *et al*: 1999).

As with boundary spanners, the manner with which coordination and interface is best achieved is through constant communication. However, good coordination takes more than just communication. Hossain and Wu (2009) stated that project-based tests have shown a significant relationship between coordination and centrality for a person who is in the state of being in a central position in a network structure (Faust: 1997) and, in a social network sense, centrality has been defined as a measure of the potential importance, influence, and prominence of a person within a network structure (Freeman: 1979). The Hossain and Wu (2009) findings have shown that individuals centrally positioned in a network show more coordination, which place a strong marker in favour of social networks in positively progressing day-to-

day project matters. Moreover, a study by Hossain (2009), which approached project-based coordination on complex multi-million dollar projects, based on the Enron dataset posted on the Internet in October 2003, with hundreds of people working together, found no correlation between coordination and the individual's organisational position but found a strong correlation between network centrality and coordination.

The PMI consider ethics in project management so important that they have a code of ethics and a code a professional conduct for project managers. Codes of conduct are required and security levels within PMIS should be established to protect against superficial codes of conduct. Also, Pierce and Henry (1996) found, in companies with leadership support, a formal code of computer ethics had an impact on ethical decision-making. However, although e-leadership can develop a caring working environment, the ultimate ethical behaviour should be the responsibility of all e-team members based upon a simple ethic of care where each person should treat others as they would want to be treated (Lee: 2009).

Indeed, Pierce and Henry (1996) also found that ethical decisions related to computer use were in the first instance influenced by an individual's own personal code, thereafter, any informal ethical code and lastly the formal code of ethics. They concluded that team members had their own personal sense of ethics that prevented unethical behaviour more than any formal code of conduct.

Section 2.3.6 highlighted the need for project management and project managers to understand the importance of organizational politics and how to make them work for project success. In contrast, Lee (2009) warned that political tactics are generally viewed as negative and self-serving, and can involve such activities as controlling, manipulating or deceiving to build support. However, in project management, good political tactics can be positive, ethical, and moral – and can prevent stakeholder problems.

In terms of e-ethical project management, there are software programs available, such as *E-ethics*, which can apply a policy-based review of all computer-generated messages on a project to alert the sender of breaches of ethics and provides a message about the ethical implications of the message and provides corrective instructions. Whilst implementation of such a system could be considered as lacking trust in an e-team, such a transparent system is better than unethical covert monitoring programs (Lee: 2009).

5.4.3 Information Technology Systems

Advances in IT

There is significant potential for IT to establish better project integration amongst team players within the construction industry and IT should be used as the medium to coordinate PBIJV megaprojects from conception through to completion. Tam (1999) stated that electronic information transfer systems offers construction companies many benefits such as improved efficiency, better management and decision-making and enhanced performance. As stated in *Rethinking Construction*, good IT is an essential part of improving the efficiency of construction and the fast flow of good information is essential to streamline processes, raise quality, and improve project execution (Gates: 1999). Achieving consistency between partners on PBIJVs is also essential, for example, in an interview with Davies for the *Contract Journal*, 22 March 2000 edition, Alan Crane stated that a major factor driving IT investment is to "maintain consistency across all staff and offices". Communication and feedback through both the committed and positive use of IT in the construction industry is within the grasp of the industry. With the correct level of commitment and investment from both the government and industry alike, electronic communication and feedback could be achieved on a real-time basis.

In recent years, day-to-day project communications within PBIJVs are in the main through e-mails. The volume of incoming e-mails received by project

managers can be excessive and overwhelming to manage. The ease of electronic transfer of information by e-mail to fellow project participants has become far too easy. For example, a designer may send a working drawing to a consultant for approval and copy the e-mail to all project team participants regardless of need to know.

Too much information can be readily available and worse still, it is now too instantly accessible (Magee: 2000). IT so far has been a producer of data rather than a producer of information and unless organized, information is still just data (Drucker: 1999). One must beware of such information overload because too much information can destroy communication almost as fast as too little (Reiss: 1995) and when drenched with information, people tend to stop reading (Kets de Vries: 1999).

Complex megaprojects require document interaction through the exchange of both *soft* and *hard* copy project documents such as blueprints, specifications, CAD files and reports. This exchange of information requires document compatibility such as provided by software (Pietroforte: 1997). Great advances have taken place since the mid-nineties and reliance of information on architect's and engineer's paper drawings is becoming obsolete (Brister: 1995) in the design offices of PBIJV megaprojects that prefer using of electronic data transfer. Indeed, a great deal of co-ordination effort is required until a context of shared interpretations and intents is created, preferably at the outset of a project.

The world is getting smaller everyday with the spread of IT with communication barriers being broken down (Madu *et al*: 1994). The age of e-projects in the e-world on megaprojects is becoming more commonplace where multi-national teams are a group of people from different departments or various areas of work responsibility, working together and exchanging information through networks and these multi-functional teams, in at times their remote offices working in different time zones need to communicate,

collaborate, and access a diverse set of information in multiple formats through the Internet (Tseng *et al*: 2004).

However, in his closing comments from a MPA seminar about the growing IT influence on major projects (MPA: 2007b, 7), Latham reminded that "IT is simply a tool of management and should be seen and used as such. The management of IT should be an essential part of efficient organisations, and if they do not have the capability in-house, the necessary expertise should be brought in". Regardless of paper or paperless environments good document management is very important. In a study of a review project by Kasvi *et al* (2003) it was concluded, the management of computer files was as unsystematic as document management. As a result files and work reports were usually available only to a few people.

Although technology has advanced tremendously over the last 2000 years, the human heart remains the same (Chu: 1994) and systems be they paper or paperless are still managed by people because the people factor remains paramount on projects and the human ware needs to maintain control of technology on site (Brister: 1995). One of the key conclusions from a MPA seminar (MPA: 2007b, 1) about the growing IT influence on major projects was that "technology is irrelevant: the key to success is people, and for those people to develop clear communication, honesty and trust".

Electronic communication

As previously highlighted, the fragmented nature of the construction industry has a lack of standardization which at times leads to poor communication and integration, which in turn results in cost inefficiencies (Baldwin *et al*: 1996). Back and Bell (1995) and Pietroforte (1997) suggested that electronic communication is the means of establishing better project integration and re-establishing added value within the industry and should be used as the coordinator of a project from conception through to completion. This view is clinical, but on face value the silo nature of the different construction industry

disciplines, protecting their own specialist territories, does not seem to dovetail well with this seamless coordination.

Not only is the choice of communication and information system method difficult but also the choice of system medium as businesses are constantly bombarded by vested interests to nurture computer based systems leading towards electronic communication and project collaboration, which encompasses the following:

* Internet;
* electronic mail ("**e-mail**");
* project management information ("**PMIS**") systems;
* enterprise resource planning ("**ERP**") systems;
* Web 2.0 collaborative systems;
* Web conferencing, video conferencing and teleconferencing;
* electronic data interchange ("**EDI**") technology;
* electronic data management ("**EDM**");
* integrated database management system ("**DBMS**"); and
* bar coding.

The debut of the World Wide Web ("**WWW**" or "**the Web**") as a publicly available service on the Internet was on 6 August 1991 and by 30 April 1993 became a free service to many people with access to a computer. Indeed, now there is an ever-increasing volume of information, particularly unstructured data, available from the Web and instant messaging to texts and e-mail (Conkleton: 2008). However, e-mail predates the WWW and started in 1965 as a way for multiple users of a time-sharing mainframe computer to communicate. Today e-mail is so widely used it is difficult to appreciate the administration inefficiencies there were before the Internet. Nowadays, the ease to send e-mails on megaprojects can facilitate quick communications with multiple team members. A vast array of information can be communicated electronically, using the Internet, as an attached file to an e-mail message. The attachment may even include a voice mail message or

video-mail message, however, attachment file sizes can be restrictive if large documents, drawings or presentations need to be distributed (Witty: 2008).

E-mail communication has become an essential part of day-to-day project operations and is an important vehicle for both organisational and interpersonal communication (Wang *et al*: 2009). This relatively new age of online communications with e-mails used as the quick medium for communications has reduced the dependence on verbal exchanges (Hawkins and Rajagopal: 2005). However, the advent of e-mail communication comes with problems, which need to be addressed such as cyber security risks, lack of e-mail authentication, spam mail and the pure ease of sending an e-mail without due care and attention. The ease of sending e-mails with numerous people copied can result in a communication structure that is unstable with many irrelevant e-mails in the system (Wang *et al*: 2009). Also, the transfer of drawings, presentations and large reports on megaprojects via e-mail attachments can still cause problems due to file sizes although large electronic files can still be shared between team members via websites such as Web hard. However, according to Cascio and Shurygailo (2003), there many mechanisms other than e-mail that is just as good if not better for project team communications, such as the electronic forum. The Web versions of these are known as weblogs or blogs.

In terms of a more complete suite of computer-mediated ("**CM**") communication tools, a PMIS offers consistency of reporting and information to all project team members based on project access rights. Such a PMIS could be in the form of an ERP system, which is a highly integrated, complex and cross-functional system that can support business processes across an entire organisation and not only the project (Sullivan and Beach: 2009). However, as cited by (Sullivan and Beach: 2009, 765), Lagenwalter (2000) argued that complexities in more than half of all ERP systems resulted in "troubled implementations and unmet operational expectations".

Nonetheless, since the start of the new millennium, companies are increasingly relying on CM communication for collaboration among employees (Biggs: 2000). The more project specific PMIS type of project software management tool has been enhanced due in part to more readily available and affordable with increased Internet speeds and memory capacities, such as Web 2.0, which enables up to date information to be shared between teams in different countries. Web 2.0 collaborative systems are dynamic and can be continually modified by the central team and offers PBIJVs on megaprojects the opportunity of communication with the project team in a structured, consistent and interactive way (MPA: 2006b).

Video conferencing provide a medium for FTF discussions, albeit on a screen, enabling the transmission of "facial expressions, gestures, and body language between participants" (Cascio and Shurygailo: 2003, 369). Such video conferencing is not new, and is widely used on PBIJV megaprojects. An extension of this virtual meeting environment is the electronic hard hat developed by BT and BICC, which incorporates a small camera, computer screen eyepiece and headphone/microphone (Brister: 1995). Other modes of visual communications are available online via Skype personal phone calls with webcams and on mobile phones with 3G technology.

Wamelink and Wortmann (1996) stated that EDI enables the external integration of process information across corporate organizational boundaries. EDI may be defined as the exchange of business data in standard electronic format, thus eliminating the need for the rekeying of information, whereas EDM technologies enable the integration of information across organizational boundaries (Back and Bell: 1995).

These various CM communication tools provide wide ranging choices for projects. In this regard, the APM People Special Interest Group ("**SIG**") undertook a pilot study to find out how the project community was

communicating in the UK and the following lists important study findings
(Lyons: 2009a):

- regular team updates are used as a primary communication method in
  87% of environments and 67% voted this the best method;

- newsletters are used in 40% of environments, but only 7% consider
  them the best method;

- paper and electronic memos are used in 26% of environments (see
  Figure 5.5) but nobody thought these were effective; and

- seventy five per cent of project environments have a dedicated project
  office or are setting one up.
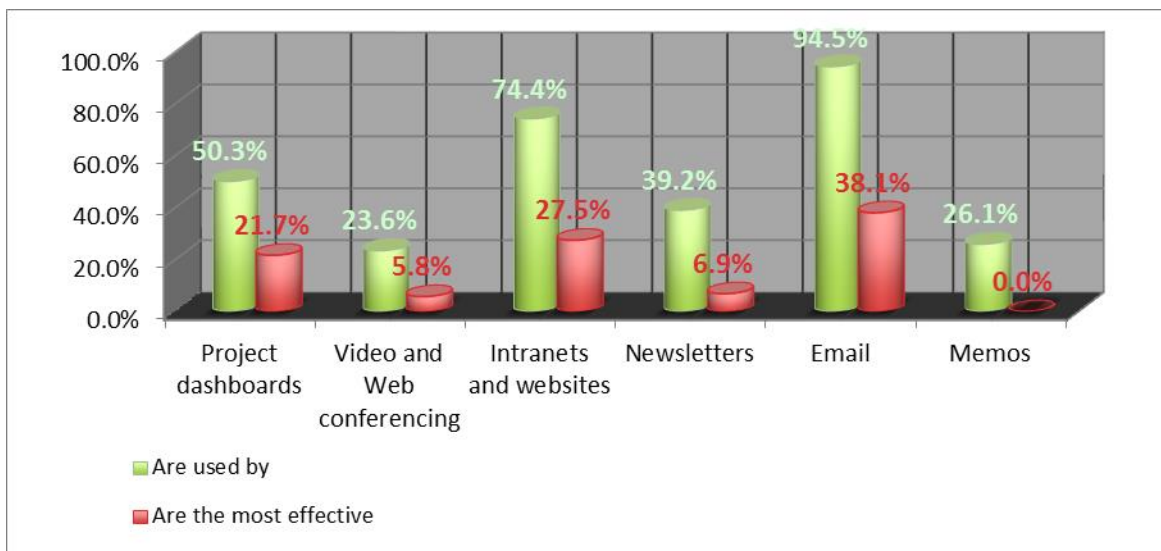
**Figure 5.5: Technical methods for communicating project information
Source: Lyons (2009b)**

This pilot study highlighted that 25% of organizations use newsletters and
memos as their primary communications method even though such a paper-
based media were considered ineffective. Lyons (2009a) highlighted the
study revealed that only five per cent of respondents mentioned the existence
of any project communication plan, 20% reported that they still work in silos
with little or no open communications and 37% felt project communication

had either not improved or had in fact got worse. Moreover, Lyons (2009b) concluded the survey had shown that project intranets, dashboards and e-mails are clear favourites and if these forms of CM communication are becoming the new 'best practice' then those companies who are slow to embrace them may fall behind in their communication effectiveness.

But IT-based collaborative systems such as that provided by Web 2.0 combine all such technologies which can greatly benefit PBIJVs on megaprojects and enable them to electronically transmit standard documents between project clients, project managers, designers, consultants, contractors, sub-contractors and material suppliers This seamless jointing of the silos within the construction industry can be greatly assisted by IT-based collaborative systems and greatly assist PBIJV megaprojects and their dispersed teams. However, in a MPA seminar it was noted that it is not just about dealing with geographical dispersion; process and technology that can help people work together in physically separate environments, but having people in the right frame of mind is equally important and the following key factors in the successful management of dispersed teams were outlined (MPA: 2006b):

1. clearly defined objectives and the decision-making process;
2. risk register website;
3. visiting;
4. looking after people interests;
5. reviewing key performance indicators ("**KPIs**");
6. performance and reward;
7. virtual boards; and
8. planning succession.

Dispersed teams and e-teams/virtual teams

Section 5.2.5 highlighted that the management of PBIJVs is in itself a problem with its dispersed teams with many communications within a virtual organization partially linked by communication technology and Section 5.3.4

highlighted that the members of dispersed teams with their diverse backgrounds may speak several languages and this makes integrated team development an extremely difficult task. Dispersed construction project teams formed for a time-limited mission or task, and then disband when the task is completed, generally work in geographically separated work places and have members working in different spaces and time zones and communicate electronically can be referred to as either virtual teams or e-teams.

According to Hertel *et al* (2004), virtual teams are work groups with members collaborating from geographically distant locations, using electronic communication media. The majority of communication within a dispersed team is by electronic means and can lead to innocent misinterpretations culminating in offense at a message that was intended to be innocuous. Electronic FTF communication is available to e-teams on PBIJVs to reduce on-line misinterpretations via e-mail.

However, such misinterpretations are more preventable by actual FTF communications. Zaccaro and Bader (2003) argued that these e-teams have two critical and unique features that favour them over traditional project teams. First, e-teams are less limited by geographic constraints placed on traditional FTF teams. Second, is the greater potential for e-teams to generate social capital, which is all about the quality of relationships and networks that e-leaders and team members form in their virtual world operating environment.

E-leadership

Section 2.3.7 argued that project managers are often required to be both managers and leaders and that they must clearly communicate. Indeed, a leader must constantly communicate with their team (Seijts and Gandz: 2009). This is even more critical for the leadership of e-teams. Zaccaro and Bader (2003) referred to such as e-leadership, which is for leaders who have to do leadership through electronic channels and virtual communication. E-

leaders need to adapt to suit their virtual environment. For example, a leadership style of 'my office door is always open' rather than initiating virtual communications is will lead to inequality of communications between the remote and non-remote teams (Cascio and Shurygailo: 2003).

The PMI considered that communication is a key responsibility of the project manager, and on an e-project the facilitating of an effective exchange of information can reduce any feelings of isolation there may be within certain quarters of the e-team. It is now commonplace on PBIJVs to have a hybrid of remote and non-remote team members, and to ensure harmony within such an e-team, it is important that e-leaders provide the same level of communication and access to both groups of the team to maintain one-teaming principles. Also, the allocation of office space for visiting e-team members, is beneficial for team well-being as it provides remote e-team members with an identity with the home office in the form of an office or cubical (Lee: 2009).

Cascio and Shurygailo (2003) have stated that empirical findings have suggested that as well as virtual communication skills, e-leaders should also think carefully about virtual collaborative skills and virtual socialisation skills to enhance an e-team's ability to function effectively, and presented the two following basic lessons from their research for e-leaders to follow:

- first impressions are critical, and, especially in virtual work environments, initial messages need to be handled well; and
- keep the tone of all messages upbeat and action-oriented. Just one pessimist in the group has the potential to undermine trust in the entire e-team, and lack of trust affects overall group productivity".

Cascio and Shurygailo (2003) also argued the importance of e-leaders, with a culturally diverse e-team, being sensitive to cultural norms and that project planning for e-teams requires them to address the following four major issues:

- coordination requirements;

- resource constraints;

- accountability for progress; and

- the mapping of task boundaries to team boundaries.

E-trust

The importance of trust within multi-national teams to function and excel was highlighted in Section 5.3.5. However, its importance for e-teams is even more critical (Cascio and Shurygailo: 2003). This is particularly so because uncertainty and misunderstandings can occur over a short time period in virtual environments due to the absence of FTF communication (Lee: 2009). E-team trust is built on e-team member beliefs and expectations of each other, where each member will deliver as promised, act with the good intentions of the project and work hard for the e-team. The development of such trust takes time and for e-teams in different geographic locations it will take longer than if in the same geographic location (Zaccaro and Bader: 2003).

Hill *et al* (2009) argued that research has shown that trust and collaborative behaviours are the two enabling conditions for success in CM groups, where trust is particularly important because of the lack of FTF interaction making it difficult for an e-team member to directly observe the behaviour of their team members.

At the beginning of Section 5.4.3, it was stated that technology is irrelevant: the key to success is people, and for those people to develop clear communication, honesty and trust. So the ultimate challenge for the e-leader is to build sufficient trust in the e-team so that a proper exchange of information can take place (Zaccaro and Bader: 2003). Figure 5.6 illustrates the progression of team trust and the specific actions e-leaders can take at different stages to foster growth in trust. Cascio and Shurygailo (2003) argued that trust in an e-team is established by repeatedly setting goals and

targets and then constantly delivering in accordance with these goals and targets.

Team Progression

Calculative Trust → Knowledge-based Trust → Identification-based Trust

E-leadership
- Routinise use of e-mail and electronic bulletin board to report members actions and decisions
- Establish task norms and standard operating procedures
- Provide clear task roles and expectations
- Verify team electronic exchanges and provide prompt feedback
- Maintain an electronic archive of team actions and decisions

E-leadership
- Encourage exchanges of social/personal information
- Convey a clear and meaningful purpose for team action
- Maintain and enthusiastic and proactive profiles
- Foster a collective identity in the e-team
- Facilitate intensive, supportive interactions to repair broken trust

Figure 5.6: E-leadership and fostering e-team trust

Source: Zaccaro and Bader (2003)

E-ethics

Section 2.2.5 highlighted ethical issues in the construction industry. On PBIJV e-projects, ethics have to accept added layers of complication. Lee (2009) defined e-ethics as ethical leadership in the virtual business environment.

Ethical leadership, as part of e-leadership, needs to guard against unethical behaviours by e-teams. The ease with which e-team members can dispatch communications, at times needs restraint and reflection before proceeding with sending an e-mail, or other virtual communications, otherwise there can be a tendency for more aggressive and disrespectful behaviour caused by heat of the moment situations or even by sheer laziness (Cranford: 1996). Also, as highlighted by Ariss *et al* (2002), a major issue for e-leadership on e-projects with collaborative on-line collaborative PMIS, is to ensure there is no unethical use of project data by e-team members who have access to sensitive and confidential materials.

The PMI consider ethics in project management so important that they have a code of ethics and a code a professional conduct for project managers. Codes of conduct are required and security levels within PMIS should be established to protect against superficial codes of conduct. Also, Pierce and Henry (1996) found, in companies with leadership support, a formal code of computer ethics had an impact on ethical decision-making. However, although e-leadership can develop a caring working environment, the ultimate ethical behaviour should be the responsibility of all e-team members based upon a simple ethic of care where each person should treat others as they would want to be treated (Lee: 2009).

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5.5   SUMMARY

An analysis of the literature review about JVs, multi-national teams, information, communication and coordination was done to find key dimensions at play as shown in Appendices A.13 to A.17. Further analysis was done to group these key dimensions within each Chapter Five literature review category. These key dimensions are summarised in Table 5.3. Further analysis is in Chapter Seven.

This part of the literature review concludes that complex megaprojects with their varying PBIJV partner cultures result in a project culture which is totally unique with difficulties to manage and achieve successful collaboration with their inherent ambiguities, subcultures, conflicts, various national,

professional and project cultures. However, as stated by Latham (2000: 8), "construction needs a holistic approach based on teamwork, of which the best method is partnering". Therefore, to achieve PBIJV success project managers need to utilize return of personal experiences, in particular cross-cultural management and politics, and to organize their multi-national dispersed e-teams in accordance with a clear matrix of responsibilities based upon the trust equation of CM communication, competence, credibility, consistency, support, respect and honesty to achieve good collaboration. All of these efforts must be supported by the senior levels of the partners in terms of good partner selection, DJ and appropriate equity share to generate a reasonable balance between PBIJV control and trust to enable timely decision-making.

Table 5.3: Key Dimensions Matrix for JVs, multi-national teams and information, communication and coordination

<table>
<thead>
<tr><th colspan="2" rowspan="2">Items</th><th colspan="3">Literature Review Categories</th></tr>
<tr><th>JVs</th><th>Multi-national Teams</th><th>Information, Communication & Coordination</th></tr>
</thead>
<tbody>
<tr><td rowspan="15">Key dimensions required</td><td>Awareness</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Clarity</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Collaboration</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Collective</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Correct initial set-up</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Correct recruitment</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Correct systems</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Correct training</td><td>√</td><td>√</td><td></td></tr>
<tr><td>Fairness</td><td></td><td>√</td><td></td></tr>
<tr><td>Flexible</td><td>√</td><td>√</td><td></td></tr>
<tr><td>Holistic</td><td>√</td><td></td><td></td></tr>
<tr><td>One-teaming</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Realistic</td><td>√</td><td>√</td><td></td></tr>
<tr><td>Realization</td><td>√</td><td></td><td></td></tr>
<tr><td>Understanding</td><td></td><td>√</td><td></td></tr>
</tbody>
</table>

CHAPTER SIX – RESEARCH DESIGN, METHODOLOGY AND EXPLORATORY INTERVIEWS

6.1   INTRODUCTION

At its conception, the scope of the study was almost boundless, partly due to the limited and fragmented nature of the existing literature on managing PBIJVs. The introductory chapter introduced the research and provided an overview of the justification for the research, aim and objectives, research process and the basic structure of the thesis. Chapter Two considered the importance of project managers managing and leading project teams and about positively encouraging project team integration with total communication on projects and the need to have a full range of *hard* and *soft* skills. Chapter Three reviewed Asian ways and culture and concluded that Western project managers require a flexible and holistic way of management thinking with an understanding of cultural differences and to fully recognize there is no one way of working to achieve project success and found that Asians have a holistic management style. Chapter Four highlighted the importance of *hard* and *soft* management skills in the construction industry though quality systems and TQM respectively with TQM also providing a holistic management philosophy. Chapter Five reviewed literature about JVs, multi-national teams and the importance of integration, trust, information, communication and coordination on major projects done by PBIJVs and concluded that complex megaprojects with their varying PBIJV partner cultures result in a project culture which is totally unique with difficulties to manage and achieve successful collaboration with their inherent ambiguities, subcultures, conflicts, various national, professional and project cultures, and to achieve PBIJV success project managers need to utilize return of personal experiences, in particular with regard to cross-cultural management and politics, and to organize their multi-national dispersed e-teams in accordance with a clear matrix of responsibilities based upon the trust equation of CM

communication, competence, credibility, consistency, support, respect and honesty to achieve good collaboration.

This chapter presents the philosophical assumptions underpinning this research and thereafter introduces and establishes the research design and methodology applied to investigate how Western PBIJV project managers can better manage East-West multicultural teams on complex construction megaprojects in Asia and details the research approach and each stage of the research process. This chapter also presents the findings from the exploratory semi-structured interviews with Western project managers with actual working experience on construction megaprojects at the fore of PBIJVs in Asia together with the justification for the selection of the three case study participants.

6.2   RESEARCH APPROACH

6.2.1 <u>Philosophical Considerations</u>

Introduction

This section discusses the research approach, namely the main philosophical considerations of this research, which are grounded on implicit and explicit philosophical perspectives, because ignoring such philosophical considerations could have a negative impact upon the quality of research. Easterby-Smith *et al* (2008) argued that in research it is very important to have a good understanding of the philosophical positioning of the research because this can help in better understanding the differing research designs and methodologies which could be used for a particular piece of research as well as ultimately identifying the best design and method to be applied to the research. Also, as argued by Wing *et al* (1998), different research approaches support different ways to proceed in the pursuit of knowledge.

The philosophical position of any research is supported by several philosophical considerations. Although there is no pre-ordained position which best represents an appropriate research design and approach, as

illustrated in Figure 6.1, every research tradition is based upon certain assumptions associated with differing combinations of ontological, epistemological and methodological assumptions. Indeed, according to Bryman (2008), the two main philosophical positions of social research are ontological and epistemological considerations, both of which are discussed in the following part of this section, which presents the philosophical assumptions adopted in the course of this research.

Ontological consideration

According to Smith (2003: 155), ontology as a branch of philosophy is "the science of what is, of the kinds and structures of objects, properties, events, processes and relations in every area of reality". Also, Smith highlighted that sometimes ontology is used in a broader sense, to refer to the study of what *might* exist.

Relativist	**Ontological level**	Realist
Interpretivist Subjectivist Emic/Insider/ Subjective	**Epistemological level**	Positivist Objectivist Etic/Outsider/ Objective
Qualitative Exploratory Induction Field Idiographic	**Methodological level**	Quantitative Confirmatory Deduction Laboratory Nomothetic
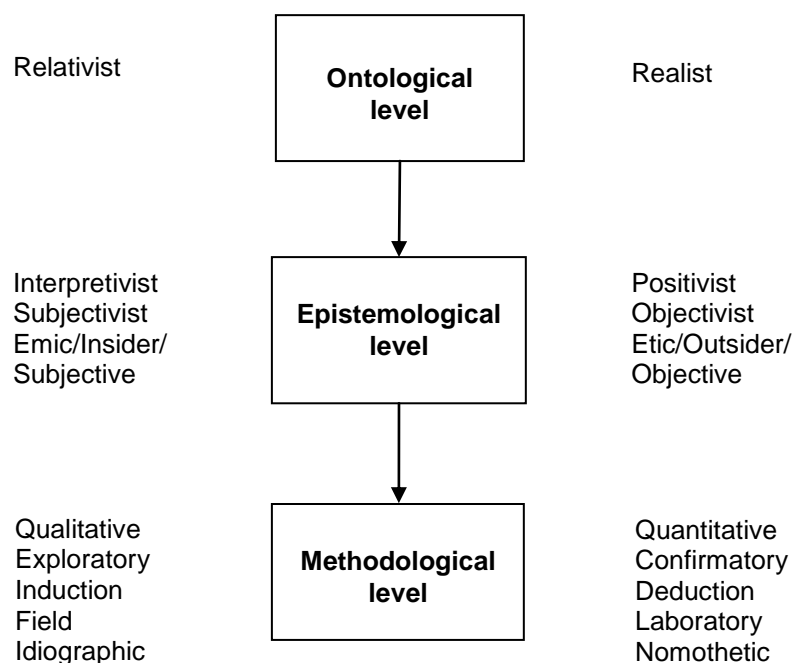
**Figure 6.7: Dimensional hierarchy
and major related dichotomies in research
Source: Khazanchi and Munkvold (2003)**

Moreover, ontology is the nature of the world around us and for researchers it is the particular slice of reality each researcher chooses to address (Hirschheim: 1992). Guba (1990) and Fellows and Liu (2008) both considered that the ontological debate is simply focused on the nature of human knowledge or the assumptions in conceptual reality.

In this regard, Fitzgerald and Howcroft (1998) considered the existence of relativist and realist ontological positions, where at one extreme there is the relativist position, which holds the belief of the existence of multiple realities as subjective constructions of the mind where the perception of reality is directed by socially transmitted teams and can vary according to language and culture. In this reality, concepts such as right and wrong, goodness and badness, truth and falsehood cannot be absolutes as they can change from culture to culture and situation to situation. At the other extreme there is the realist ontological position, which is based upon the belief that the external world comprises of pre-existing hard and tangible structures. These structures exist independently of an individual's cognition and ability to acquire knowledge, which is a practical position unconcerned with an abstract or idealistic view of life.

At the ontological level, this research is common with many other studies and is based upon the realist position. However, this research takes the form of critical realism, which is a philosophy of science that prioritises ontology over epistemology in the sense that, for critical realists, the way the world is should guide the way knowledge of it can be obtained. Critical realism is derived mainly from the work of Bhaskar (1998) and developed by Fleetwood and Ackroyd (2004) and Reed (2005) for organisational and management studies.

Epistemological consideration

According to Guba (1990), epistemology is about the theory of human knowledge, how we acquire knowledge and how we recognize the subject of

study or the relationships between the knower and known, as such, epistemology needs to address the following type of questions:

- What is knowledge?
- How is knowledge acquired?
- What do people know?
- How do we know what we know?
- How can we judge what is true and false?

Therefore, as presented by Burrell and Morgan (1992), such epistemology questions should determine if knowledge is acquired or personally experienced.

Ontological considerations involve a logical investigation of the different ways things are thought to exist and in research this involves whether or not the researcher views the world from an objective or subjective perspective. Arlbjørn and Halldorsson (2002) considered that a positivist perspective views reality as an entity that exists and can be measured, whereas an interpretive perspective views reality as a subjective interpretation. Indeed, the two distinct philosophical approaches for developing research are positivist and interpretive. These approaches explain the philosophical assumptions that researchers have about the world, the nature of knowledge and knowing, the role of values and how to go about studying phenomena (Easterby-Smith *et al*: 2008 and Remenyi *et al*: 1998). Researchers in natural sciences have traditionally adopted a positivist epistemological approach, with the belief that the world confirms to fixed laws of causation, however, its adoption in the social sciences has been less successful (Hirschheim: 1992).

The positivist epistemological position advocates that complex issues can be tackled using a simplified or fundamental approach with a strong emphasis on objectivity, measurement and repeatability. Therefore, it is considered that a positivist approach should enable the researcher to be objective and observe reality in an unbiased manner (Bryman: 2008 and Fitzgerald and Howcroft: 1998). Moreover, the positivist approach is a quantitative approach

and is based upon the understanding that the research problem should be analysed and measured through objective methods rather than subjective. Such an approach requires an understanding of social life and is based on a philosophy that phenomena exist in causal relationships between quantifiable and directly observable variables. Therefore, positivist studies are generally associated with the testing of theories, which requires the formulation of hypotheses for subsequent verification with the aim of achieving a predictive understanding of phenomena (Easterby-Smith *et al*: 2008 and Remenyi *et al*: 1998).

Contrary to this positivist position, the interpretivist epistemological position, which advocates the absence of a universal truth, places more emphasis on the realism of context and is considered critical to apply a scientific model to social study. The understanding and perspective of and interpretation by the researcher of research findings become the point of reference. As such, it is not possible for the researcher to be strictly neutral when adopting an interpretivist epistemological position in research. For example, researchers become totally involved in their research, and their values and beliefs likewise become the driving force in interpreting research findings (Bryman: 2008 and Fitzgerald and Howcroft: 1998).

Moreover, when researchers adopt an interpretive approach they start their research with the assumptions that access to reality is only through social constructions such as language, consciousness and shared meanings. Researchers have to try and understand phenomena through the meanings that people place on them because interpretive research focuses on the holistic complexity of decision-making as situations evolve rather than placing pre-ordained definitions upon dependant and independent variables (Easterby-Smith *et al*: 2008 and Remenyi *et al*: 1998). Table 6.1 highlights the distinctions between positivist and interpretivist perspectives discussed in this Section 6.2.1.

Whereas the positivist approach is a quantitative approach, the interpretive approach is a qualitative approach based upon the understanding that reality is holistic and rather than being objectively determined is socially constructed. Section 6.2.2 discusses quantitative and qualitative research approaches.

Table 6.4: Distinctions between positivist and interpretive perspectives Source: Easterby-Smith *et al* (2008)

	Positivist Perspectives	**Interpretivist Perspectives**
Basic beliefs:	The world is external and objective	The world is socially constructed and subjective
	Observer is independent	Observer is part of what is observed
	Science is value-free	Science is driven by human interests
Researcher should:	Focus on facts	Focus on meaning
	Look for causality and fundamental laws	Try to understand what is happening
	Reduce phenomena to simplest elements	Look at the totality of each situation
	Formulate hypothesis and test them	Develop ideas through induction from data
Performed methods include:	Operationalising concepts so that they can be measured	Using multiple methods to establish different views of phenomena
	Taking large samples	Small samples investigated in depth

Methodology – philosophical position of research

As highlighted earlier in this Section, the two main philosophical positions of social research are ontological and epistemological considerations. Fitzgerald and Howcroft (1998) included another important philosophical consideration, which could be included as a fourth level to those considerations shown in Figure 6.1, termed the axiological level. Axiological considerations explore the role of quality and values, which includes matters related with ethics, politics and aesthetics and according to Fitzgerald and Howcroft (1998) includes the dichotomy between rigour and relevance, normally associated with the *hard* and *soft* approaches, respectively. Table

6.2 summarizes the main philosophical considerations discussed so far in this Section 6.2.1.

Table 6.5: Summary of philosophical considerations
Source: Baiden (2006)

Ontological considerations	
Realist	**Relativist**
External world comprises pre-existing hard and tangible structures Structures exist independent of individual's ability to acquire knowledge	Existence of multiple realities as subjective construction of the mind Perception of reality is directed by varying socially transmitted terms
Epistemological considerations	
Positivist	**Interpretivist**
Applications of natural science methods to the study of social reality and beyond World conforms to the laws of causation and complex issues can be resolved by reductionism	Absence of universal truth and emphasis on realism of context Understanding and interpretation come from researcher's own frame of reference

At the ontological level, this research has adopted the realist position because the number of ways Western project managers work on construction megaprojects in Asia can vary considerably. Moreover, this research also considered that the investigation should be conducted in a practical rather than abstract way.

At the epistemological level, this research adopted the interpretivist position because the nature of the research problem is focused on how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia. Moreover, Seymour *et al* (1997) emphasized that the interpretive approach is valuable for identifying problems in the construction industry because it can recognize the differing viewpoints of various people in the industry.

6.2.2 <u>Research Strategy</u>

Introduction

As highlighted by Neuman (2005), although quantitative and qualitative research strategies differ in many ways they can still be complimentary strategies. Nonetheless, the decision-making process to choose the most appropriate research strategy depends upon various variables such as the purpose of the study and the type and availability of the required research information (Naoum: 2007). This research has followed a qualitative strategy for the research design and methodology. This section discusses the two main available research strategies, namely quantitative and qualitative, and clarifies the reasons for the choice research strategy adopted in this research.

Quantitative research

As illustrated in Figure 6.1, quantitative research is associated with a deductive approach, which handles research problems by using mathematical and statistical techniques to identify facts and causal relationships. The quantitative type of research strategy adheres to the practices and norms of the natural scientific model, which is positivist in nature, and views social reality as an external and objective reality. Quantitative research is, therefore, 'objective' in nature and based on testing a hypothesis or a theory consisting of a number of variables (Fitzgerald and Howcroft: 1998 and Naoum: 2007).

The most common data collection techniques in quantitative research are questionnaires, tests and existing databases (Frechtling and Sharp: 1997). As such, the collection of hard reliable data is an essential part of the quantitative research strategy, where the collected data samples are relatively large and representative. The results of the data collection can then be generalized with respect to a larger population and evaluated by using a sophisticated statistical technique (Bryman: 2008 and Fitzgerald and Howcroft: 1998). However, the validity of the results of the data collection can be totally dependent upon on the choice of an appropriate measuring instrument and how accurately it measures targets (Patton: 2002).

The main steps in quantitative research are presented in Figure 6.2. These steps as presented are somewhat idealistic because quantitative research is rarely so linear, however, these steps are indicative of the main steps in quantitative research (Bryman: 2008).

Naoum (2007) concluded that the selection of a quantitative research is best suited to the following circumstances:

1. When you want to find facts about a concept, a question or an attribute.

2. When you want to collect factual evidence and study the relationship between these facts in order to test a particular theory or hypothesis.

The use of quantitative research strategies has received criticisms from researchers regarding its appropriateness as a research strategy, and the following criticisms of such a research strategy were highlighted by Bryman (2008: 159):

- failure of quantitative researchers to distinguish people and social institutions from 'the world of nature';

- measurement process possesses an artificial and spurious sense of precision and accuracy;

- reliance on instruments and procedures hinders the connection between research and everyday life; and

- analysis of relationships between variables creates a static view of social life that is independent of people's lives.

Qualitative research

Quantitative research strategy was originally developed to study natural phenomena in the natural sciences, whereas the qualitative research strategy was developed in the social sciences to enable researchers to study social and cultural phenomena. According to Schwandt (2007), qualitative research is a diverse term covering many different techniques to describe, decode, translate, and understand the meaning, rather than the

measurement or frequency of phenomena in the social world. Quite simply, qualitative research is based on text rather than numbers. Moreover, Kaplan and Maxwell (1994) argued that it is essential to understand the informant's point of view and the particular social and institutional context at play and such is not possible when textual data are quantified. Maxwell (1998) further argued that the strengths of qualitative research are founded on its:

- inductive process;
- focus on specific situations or people; and
- emphasis on words rather than numbers.

The key differences between quantitative and qualitative research strategy is that quantitative researchers often deal with many cases consisting of a minimal amount of quantified variables, whereas, qualitative researchers work on a minimal amount of cases consisting of many qualitative variables (Ragin: 1987).

In circumstances where theory guides research there is a situation known as a deductive approach at play, whereas, for the instances where theory is the outcome of research there is as inductive approach at play (Bryman: 2008). In other words, the nature of the relationship between theory and the research process of developing a theory by inspecting individual cases is induction, whereas, the process of reaching conclusions about specific instances from general principles is induction (Greenfield: 1996). In this regard, deductive theory represents the most common view of the relationship between theory and social research (Bryman: 2008). Unlike the deductive approach adhered to in quantitative research, qualitative research follows an inductive approach in relation to theory. It is focused on the spoken word rather than the quantification of collected data and subsequent data analysis. Also, whereas quantitative research is objective, qualitative research is subjective in nature and is exploratory and attitudinal (Frechtling and Sharp: 1997). As such qualitative researchers tend to be more reliant upon an interpretive approach in the pursuit of research findings, which follows a more non-linear research path as opposed to the more linear path

preferred by quantitative researchers as depicted in Figure 6.2. Therefore, the medium of qualitative research strategy is more suited to cases and contexts (Neuman: 2005), where a small number of representative cases are usually investigated and informants or respondents are selected to fill a given requirement (Sherif: 2002).
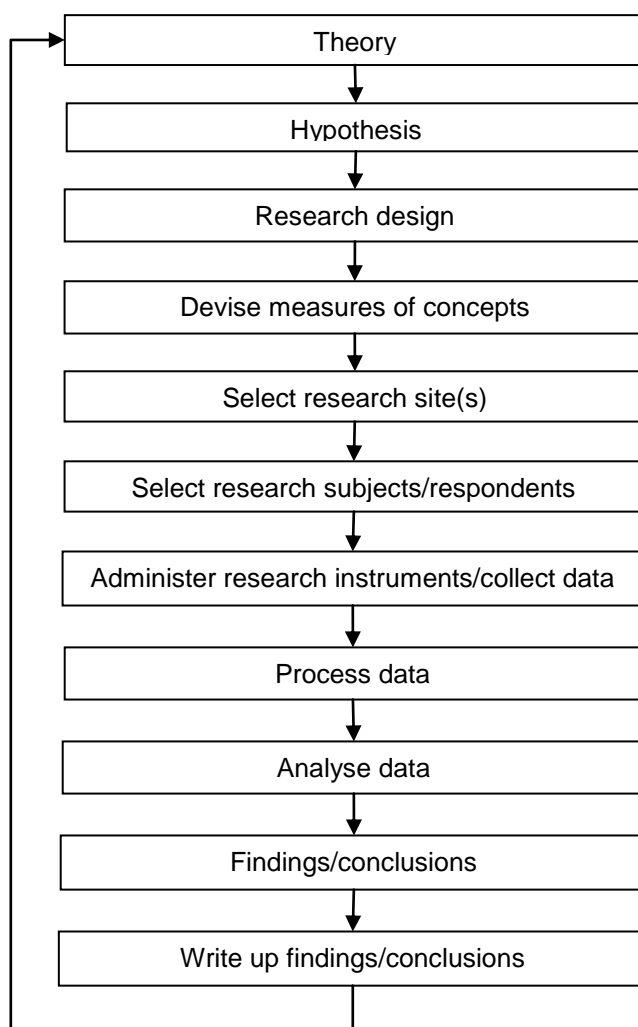
Figure 6.8: The process of quantitative research
Source: Bryman (2008)

The three following kinds of research data are generally collected by qualitative researchers:

- in-depth and open-ended interviews;
- direct observations; and

- written documents.

Such qualitative research data can be unstructured or semi-structured but nonetheless both can yield quotations, descriptions and excerpts. However, the credibility of qualitative research depends on the skill, competence and rigour of the researcher (Patton: 2002). Ultimately, as argued by Fitzgerald and Howcroft (1998), qualitative research strategy is more responsive to the needs and nature of a research situation than the quantitative research approach and process because qualitative research data are soft, rich and deep and determine what things exist rather than how many there are.

Figure 6.3 presents the main steps involved in the qualitative research process where research questions are driven by theoretical issues, which in turn drive the data collection and analysis (Bryman: 2008). The applicability of employing a qualitative research strategy requires the following type of research problem (Baiden: 2006):

- there is no existing research data on the topic and the most appropriate unit of measurement is not certain; and
- the concepts to be researched and assessed on a nominal scale, with no clear demarcation and involve exploring behaviour or attitudes.

However, Bryman (2008: 391) highlighted that qualitative research has been the subject of criticisms from researchers and these critics have argued that such a research strategy:

- is too impressionistic and subjective and the findings rely too much on the researcher's often unsystematic views about what is insignificant and important;
- is difficult to replicate because it is unstructured and often reliant upon the researcher's ingenuity;
- has problems of generalization because the scope of the findings of qualitative research is often restricted when unstructured interviews are conducted with a small number of individuals in a certain organization or locality; and

- lacks transparency due to the difficulty, which sometimes arises from the establishment of what the researcher actually *did* and how the study's conclusions were arrived at.

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┌─────────────────────────────────────────┐
│ 1. General research questions            │
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                    │
                    ▼
┌─────────────────────────────────────────┐
│ 2. Selecting relevant site(s) and subjects│
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                    │
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│ 3. Collection of relevant data           │
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                    │
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┌─────────────────────────────────────────┐      ┌────────────────────────────┐
│ 4. Interpretation of data                │◄ ─ ─ │ 5b. Collection of further data│
└─────────────────────────────────────────┘      └────────────────────────────┘
                    │         ▲                                 ▲
                    ▼         │                                 ┊
┌─────────────────────────────────────────┐      ┌────────────────────────────┐
│ 5. Conceptual and theoretical work       │─ ─ ►│ 5a. Tighter specification of │
└─────────────────────────────────────────┘      │ the research question(s)     │
                    │                             └────────────────────────────┘
                    ▼
┌─────────────────────────────────────────┐
│ 6. Write up findings/conclusions         │
└─────────────────────────────────────────┘
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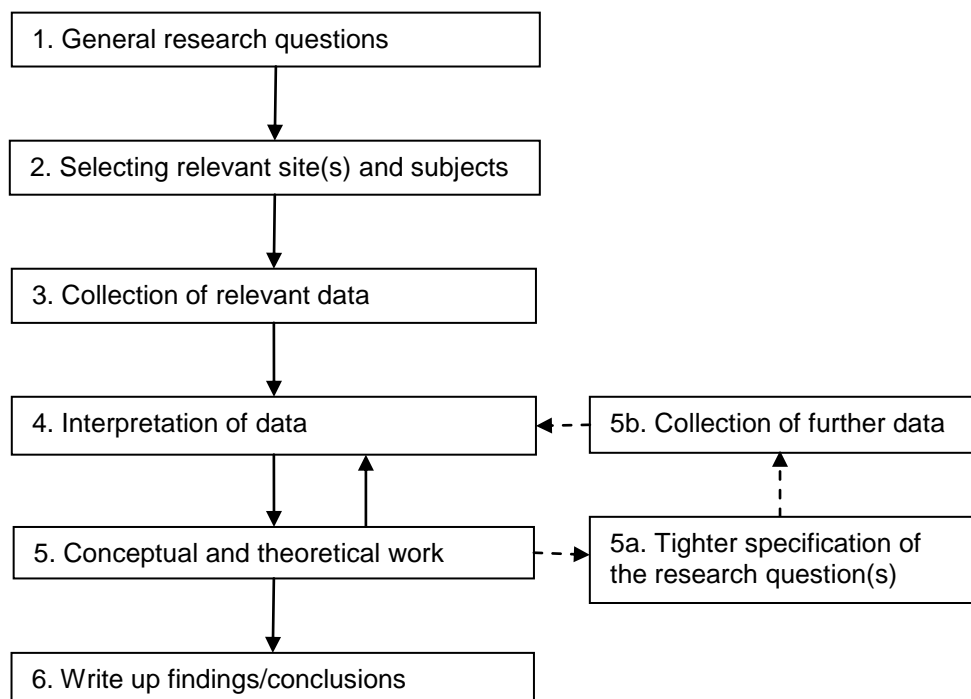
Figure 6.9: An outline of the main steps of qualitative research
Source: Bryman (2008)

As shown in this section, research strategies are in general terms either quantitative or qualitative. However, it has been suggested that research is best served by using both strategies through triangulation (Love *et al*: 2002 and Ragin: 1987). White (2000: 67) also argued for triangulation and stated that "researching the same topic using a number of different techniques is complementary, with the outcome resulting in a more thorough understanding of the problem under investigation". According to Denzin (1971) and Denzin (2006), triangulation is a notion introduced from military studies, whereas White (2000) considered that triangulation originally comes from navigational practice where a number of reference points can be used to locate an exact position. In terms of research, Kelle (2001) considered triangulation was initially borrowed from the realm of quantitative

psychological methodology: within the framework of a theory of psychological testing. Regardless, triangulation has been suggested as a way to make research studies more robust and rigorous through the validation of results through differing strategies to best ensure that the results are not just a function of the research strategy. This is particularly so for case studies (Yin: 2009). Triangulation is discussed in more detail in Section 6.5.3.

Adopted research strategy

Following the explanations in this section, this research has adopted a qualitative research strategy for the following reasons.

- The nature of the research objectives in Chapter One suggested the need for a qualitative approach. In the main, this is because information about how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia is considered to be insufficient. Also, the less information there is available regarding any phenomena, the more the qualitative approach is suitable (Yin: 2009).

- The research is exploratory in nature with the aim to establish an effective construction megaproject management framework, Final Framework, for Western expatriate project managers to use to guide them in the project management of East-West multi-cultural dispersed project teams on PBIJVs in the construction industry on complex megaprojects in Asia, in a holistic way with a clear focus on good e-teaming communication and flexibility of thought so that the multi-cultural teams can work more effectively and efficiently resulting in improved project performance through the study of existing project manager practices. The research findings and conclusions were applicable within the context in which the research was done. The research did not require the creation of hypothesis and any subsequent testing, which is associated with quantitative research rather than qualitative research as highlighted by Bryman (2008).

- The aim of the research is to establish a framework for Western expatriate project managers to use to guide them in the project management of East-West multi-cultural dispersed project teams on PBIJVs in the construction industry on complex megaprojects in Asia in a holistic way with a clear focus on good e-teaming communication and flexibility of thought so that multi-cultural teams can work more effectively and efficiently resulting in improved project performance. Therefore, it is necessary to focus on the views and perspectives of actual experienced project managers in the context of the research problem to establish a good understanding rather than strive for a general understanding based potentially on out of context settings.

- To explore in depth the factors that influence how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia. The research explored research problems in an in-depth manner and pursued detailed rather than numerous descriptions. This approach was considered essential to gain the insight necessary to properly appreciate and understand the attitudes and behaviours of the selected Western project managers with years of working experience on PBIJVs in Asia on construction megaprojects.

- To obtain detailed viewpoints from experienced project managers from FTF discussions and to obtain rich data in the form of research quotations taken verbatim from these FTF interviews, data from project documents and secondary observations. This soft, descriptive and less structured data was collected and analysed using non-statistical techniques and involved the creation of themes and categories within themes, and the further development of coding the data, as discussed by Fellows and Liu (2008), developed during the literature review stage of the research.

6.2.3 <u>Research Design</u>

Introduction

The research strategy was discussed in Section 6.2.2 to provide the outline of the research and to highlight the fundamental differences between quantitative and qualitative research approaches. Upon establishing that this research has adopted a primarily qualitative research strategy, this section describes the differing methods available for data collection and analysis. The research methodology is discussed individually in Sections 6.3-6.5.

Research design

De Vaus (2001) provided the following analogy to assist with understanding the term research design.

When constructing a building there is no point ordering materials or setting critical dates for completion of project stages until we know what sort of building is being constructed. The first decision is whether we need a high rise office building, a factory for manufacturing machinery, a school, a residential home or an apartment block. Until this is done we cannot sketch a plan, obtain permits, work out a work schedule or order materials.

As such, social research needs a design or a structure in place before the commencement of the data collection or analysis stage. The function of a research design is to ensure that the evidence obtained enables the researcher to answer the research questions as unambiguously as possible, therefore, when designing research the researcher needs to ask: given this research question, what type of evidence is needed to answer the question in a convincing way? (de Vaus: 2001). Therefore, research design is the structure within which the research method is employed, which in turn enables the researcher to connect empirical data to its conclusions in a logical sequence to the research questions (Bryman: 2008 and Yin: 2009). The word empirical denotes information gained by means of observation, experience, or experiment, therefore, empirical data are data that are produced by experiment or observation (Wikipedia: 2010a), where according

to Fellows and Liu (2008: 82), "empirical work is concerned with knowledge gained from experimentation".

As well as the different philosophical perspectives, there are various empirical research methods available to researchers, both quantitative and qualitative in nature, all of which can be used for three purposes – exploratory, descriptive and explanatory (Yin: 2009). Cresswell (2007) highlighted the following five distinct qualitative research traditions:

- historian's biography;
- psychologist's phenomenology;
- sociologist's grounded theory;
- anthropologist's ethnography; and
- social scientist's case study.

Each one of these research methods adheres to a different focus, discipline origin and method of data collection and analysis. The biography method explores the life of an individual, the action research method focuses on solving actual problems by active researcher participation, the grounded theory method develops a theory grounded in data from the field, the ethnography method describes and interprets a cultural and social group, and the case study method develops an in-depth analysis of a case or cases.

Fellows and Liu (2008) and Yin (2009) concluded that the research design options available to construction management and organizational research are largely unstructured, variable and unformulated. However, Bryman (2008: 31) concluded that a particular research design needs to be selected to underscore the importance with which the researcher attaches to the following research matters:

- expressing causal connections between variables;
- generalizing to larger groups of individuals than those actually forming part of the investigation;
- understanding behaviour and the meaning of that behaviour in its specific social context; and

- having a temporal (i.e. over time) appreciation of social phenomena and their interconnections.

In social research the issues of sampling, method of data collection, design of questions are all subsidiary to the matter of `what evidence do I need to collect?' (de Vaus: 2001). Blismas (2001: 101) identified that four research designs – experiment, survey, action research and case study – were "viable options for addressing the research questions posed in most construction management and social science research" and also highlighted that researchers need to assess the appropriateness of these different research methods prior to choosing which research design to use.

In a similar manner, Yin (2009) referred to five major research methods within social sciences: experiment, survey, archival analysis, history and case study, each with their own research traits. Yin (2009) highlighted that each of these research methods could be used for exploratory, descriptive or explanatory research and addressed each of the five research method options and provided a basis upon which to select the most appropriate research method option, as depicted in Table 6.3.

Table 6.6: Relevant situations for different research methods
Source: Yin (2009)

Method	Form of research questions	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	How, why?	Yes	yes
Survey	Who, what, where, how many, how much?	No	yes
Archival analysis	Who, what, where, how many, how much?	No	yes/no
History	How, why?	No	no
Case study	How, why?	No	yes

Therefore, as highlighted by Yin (2009), the type of research question posed, the extent of control an investigator has over actual behavioural events and the degree of focus on contemporary as opposed to historical events distinguishes the choice of research method. The following basic research questions were posed in Section 1.4.1:

- *what is the best way for a PBIJV to approach a complex construction megaproject in Asia; and*

- *how can Western expatriate project managers best manage and lead the project management of their megaproject from inception to completion and enable the best chance for overall project success?*

Thereafter, Section 1.4.2 followed up this basic research question by introducing the research problem, namely, to propose a framework for a Western expatriate project manager on a PBIJV to project manage a complex construction megaproject in Asia from inception to completion for overall project success, and the following main reasons why the problem chosen is considered to be important was presented:

- to improve the effectiveness of Western project management systems and tools on complex PBIJV construction megaprojects in Asia;

- to better understand fundamental cultural differences between West and East for such issues as business ethics, corruption, loyalty, networks, *face*, trust, lobbying, logic, decision-making, flexibility and values;

- to improve the understanding of the cultural expectations of Asian project personnel on PBIJV construction megaprojects; and

- to produce a process to improve project management skills on PBIJV construction megaprojects in Asia would be of benefit to Western project managers and could result in enabling multi-cultural teams to work more effectively and efficiently with the ultimate goal of achieving improved levels of performance and project success.

The following reviews the five major research methods suggested by Yin (2009).

Experiment

Experiments are best suited to address research problems with both a hypothesis and known variables, and are aimed at developing and testing either a theory or practical evaluation of intervention. Moreover, experimental research designs test relationships between the research variable and the dependent variables through manipulation. However, research data is collected for further analysis via observation. Experimental research designs are usually not employed directly in social research but only as a yardstick against which non-experimental research can be assessed (Bryman: 2008, Fellows and Liu: 2008, Hammersley and Gomm: 2000 and Yin: 2009). According to Bryman (2008), the strength of experimental research design is in its robustness and trustworthiness of causal findings.

Survey

The survey is widely accepted approach for research design and is a procedure in which information can be systematically collected from cases (companies and people) through questionnaires and interviews (personal and telephone). The selection of cases is from a defined population to maximise the representativeness of survey data to be collected in relation to a larger population. Surveys provide a useful way of portraying the current states of groups (Bryman: 2008, Fellows and Liu: 2008, Janes: 1999 and Thomas: 1996).

Surveys can be relatively inexpensive to conduct and are able to cover a geographically widely dispersed population of respondents. Surveys can be conducted either by means of interviews or questionnaires and both can be structured, semi-structured or unstructured. In terms of the interview approach, Sherif (2002) argued that interviews allow for flexibility and can result in good communication with high response rates. Generally, surveys can also improve the reliability of observations through checks-and-balances based upon survey replications as a result of inherent standardized measurement and sampling procedures. Moreover, surveys are suited to

construction management research because they enable the statistical analysis of data and generalization to a larger population (Oppenheim: 2003).

Action research

Action research is defined by Bryman (2008) as an approach in which the action researcher and members of a social setting collaborate in the diagnosis of a problem and in the development of a solution based on the diagnosis. Action research is a complex process comprising of the formation of a research problem, action hypothesis, implementation and diagnostic cycle and can be used to propose and validate solutions to particular research problems. Both quantitative and qualitative data can be collected in action research (Bryman: 2008 and Fellows and Liu: 2008). Moreover, action research can be undertaken by large companies or institutions, duly assisted or guided by professional academic researchers, with the objectives of improving their business strategies, practices and knowledge of the environments within which they practice. Although, most qualitative research accumulates such a large amount of data, action research offers an economy in that only the interpretations need to be carried from cycle to cycle (Dick : 1997).

Due to the collaborative nature required of action research and the need for a researcher to be part of the study, Blismas (2001) indicated that the use of action research in construction is rare. Nonetheless, as argued by Avison *et al* (1999), researchers need to try out their research theories with practitioners in actual situations and with active companies to make their academic research relevant.

Case study

The case study method allows investigators to retain the holistic and meaningful characteristics of real-life events, such as organizational and managerial processes, and where the case study's unique strength is its ability to deal with a full variety of evidence (Yin: 2009). In reality, a case study is a detailed example investigated from all sides. Case studies are

especially good in complex situations which involve a number of different issues. However, a case study is not a single qualitative technique, because different methods can be used. Indeed, many case studies include quantitative questionnaires, although there remains a tendency for case studies to use descriptive evidence such as interviews and observation. Nevertheless, all case studies are inductive in that they investigate and report on the specific, and then try to generalise (White: 2000).

A case study is an in-depth, empirical inquiry that investigates a contemporary phenomenon (subject of case study) within its real-life context (external to the case) when the boundaries between phenomenon and context are not clearly evident. As previously highlighted, qualitative research is considered as non-linear, however, case study research can be considered as a linear yet iterative process as depicted in Figure 6.4. Also, as shown in Table 6.3, case studies are particularly suited to answering how and why questions. In its simplest format, the case study approach involves the in-depth analysis of a single case. However, there are four different basic case study approaches: typical, atypical, precursor studies and multiple-case studies. For the multiple-case study approach, the pursuit of including too many cases in research over a relatively short period of time could well dilute the completeness of the collection of relevant data. Therefore, the selection of case studies is often based on their representativeness (Bryman: 2008, Fellows and Liu: 2008, Stam: 2008, White: 2000 and Yin: 2009).

A fundamental concern of the case study approach is to properly understand the context of the case, which may exclude any interest in theoretical influences or empirical generalization, however, the wider relevance of case study findings may be conceptualized (Hammersley and Gomm: 2000). Yin (2009) presented the two following complementary approaches of the case study approach to address issues related with the appropriateness of case study research design:

- presentation of individual case studies; and
- the use of cases to make broader generalizations.
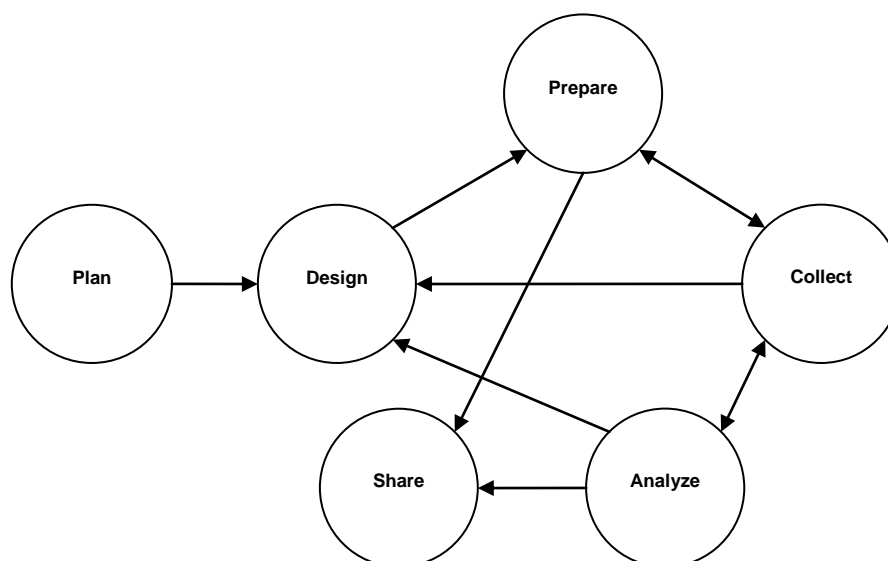
Figure 6.10: Doing Case Study Research
Source: Yin (2009)

Adopted research design

In consideration of both the quantitative and qualitative philosophical perspectives, as depicted in Table 6.4, despite the main criticism of case study research design, namely, the inability to generalize, this research design firstly adopted a case study approach and chose a multiple-case study version of this approach because of the high exploratory and contextual nature of the research and the need to conduct in-depth investigation of the complex relationships among interdependent variables (Yin: 2009), the limited number of potential cases to study with Western project managers on construction megaprojects in Asia which could be investigated (Eisenhardt: 1989) and the large amount of qualitative data required (Blismas: 2001); although Eisenhardt (1989) argued that with fewer than four cases it is often difficult to generate theory with much complexity. Moreover, it is considered that the case studies approach enabled a holistic approach to be utilized in the pursuit of determining the factors that were necessary to further develop the Conceptual Framework for Western PBIJV

project managers to better manage East-West multicultural teams on construction megaprojects in Asia.

Table 6.7: Empirical research methods
Source: Cresswell (2007) and Yin (2009)

			Philosophical perspective	
			Positivist	Interpretive
Empirical research method	**Quantitative**	Survey		
		Experiment		
		Formal method		
		Numerical method		
	Qualitative	Biography		
		Ethnography		
		Case study		**This research**
		Action research		
		Grounded theory		

Moreover, Yin (2009: 18) defined the case study method as an empirical inquiry that "investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident"; where the case study inquiry "relies on multiple sources of evidence, with data needing to converge in a triangulating fashion". For example, the goal of the case study method is not to produce summary statistics about a set of observations but to explore and describe in depth the meaning of a certain phenomenon in its environment (Eisenhardt: 1989). In this study, the case study is useful to explore and describe in depth how Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia. This is particularly important as the nature of construction industry is project-based and thus, each project will have distinct characteristics based on the matrix of project participants and location. Consequently, it is considered appropriate to have a case study for each chosen construction megaproject.

According to Miles and Huberman (1994), one of the advantages of using the case study research method approach is that researchers can delve beyond the 'what' or 'how many' type of basic question, which can be potentially one-dimensional. The case study approach facilitates the exploration of how

Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia by asking questions that needs to be traced over time, rather than just being reliant upon just frequencies or incidence, which Klein and Myers (1999) described as interpretative research.

Finally, rather than adopting a purely one-dimensional approach to the research design, a pluralistic research design advocating the use of multiple research methods within a single study, was adopted to benefit from the complementary strengths of the different research methods. The established research methods in both the quantitative and qualitative research strategy can provide a healthy contribution at various points in the research process, depending upon the existing body of knowledge in the specific area under study, the objectives and perspectives of the research and the quality of available data (Wing *et al*: 1998).

The research objectives, together with the adoption of a mixed method approach, led to the adoption of more than one research method during the course of this research, which are detailed in the following sections. Table 6.5 illustrates the link between the research objectives, selected case study questions and the research methods used.

For each set of research objectives, a primary research method was adopted and other research methods were chosen to provide secondary information thus enabling triangulation of results (refer to Section 6.3.5 for more details about triangulation). This research approach served to reduce or eliminate the potential disadvantage of adopting a purely one-dimensional research approach whilst gaining the advantages of each, and of the combination – a multi-dimensional view of the subject, gained through synergy (Fellows and Liu: 2008).

Table 6.8: Link between research objectives and methods used

Research objectives	Selected case study questions	Research methods		
Key **P: Primary method** **S: Secondary method**		Literature review	Survey	Case studies
Objective One – to explore the differing ways project managers can manage and lead project teams, and make decisions to achieve construction project success.	How does the fragmented nature of construction affect the management of dispersed project teams? How can project managers adequately manage the external environment and acquire a more holistic management style?	P		S
Objective Two – to explore Asian ways and culture, approach to organization, management and decision-making processes so that Westerners can better understand differing ways to approach management as a lead partner on a PBIJV in Asia.	Do Western project managers consider the Western way is the only real way to properly manage projects? How can Western project managers adapt their ways of working to succeed on construction project in Asia?	P		S
Objective Three – to explore whether Western project managers need to apply a basic core philosophy of being simple, holistic, dynamic and flexible for management issues on a PBIJV project in Asia and if it is important to recognize *hard* and *soft* TQM fundamentals to achieve project success.	How does construction successfully implement TQM? Should project managers focus on *hard* project management skills in the pursuit of project success? How important are *soft* skills in the pursuit of project success?	P		S
Objective Four – to explore the importance for project managers to have prior personal relevant experiences, in particular cross-cultural management and politics, and to explore ways multi-national dispersed e-teams can be organized to achieve good collaboration, quick decision-making and PBIJV success.	How important is it for project managers to have national cultural training, good in-country experience and an open mind to achieve project success?	P		S
Objective Five – to identify factors of success and failure in the project management of construction megaprojects by PBIJVs in Asia with the objective of exploring new ways of working for Western expat project managers on construction megaprojects in Asia resulting in improved project performance.	How do experienced Western project managers leading construction PBIJVs handle the project management of dispersed teams and multiple project shareholders?	S	S	P
Objective Six – to develop an effective framework for Western expat project managers to use to guide them in the project management of East-West multi-cultural dispersed project teams on PBIJVs in the construction industry on complex megaprojects in Asia.	How should a PBIJV approach a complex construction megaproject in Asia and how can Western expatriate project managers best manage and lead the project management of their megaproject from inception to completion and enable the best chance for overall project success?	S	S	P

As well as concerns associated with empirical generalization, the validity and rigour of a case study approach was also taken into consideration during this research. These concerns and criticisms are addressed in Section 6.5 to further strengthen the choice of the case study approach for the collection and analysis of data for this research.

6.3   RESEARCH PROCESS

6.3.1 <u>Introduction</u>

The basic research question and subsequent research problem statement, aim and objectives, as detailed in Sections 1.4 and 1.5, which this research has addressed were derived from exploratory and in-depth literature reviews. These literature reviews were necessary to establish the relevant theoretical background, to develop sharper and more insightful research questions about the research problem and basis to do the research (Yin: 2009).

Upon the establishment of the philosophical position of the research, as detailed in Section 6.2, the post literature review part of the research process was done in three stages, which are described in Sections 6.3.2, 6.3.3 and 6.3.4. Sections 6.4, 6.5 and 6.6 highlight the processes adopted to meet the objectives of the research, which were outlined in Section 1.5.2. These objectives were developed to achieve the aim of the research, namely, to establish a framework for a Western expatriate project manager on a PBIJV to project manage a complex construction megaproject in Asia from inception to completion for overall project success in a holistic way with a clear focus on good e-teaming communication and flexibility of thought so that multi-cultural teams can work more effectively and efficiently resulting in improved project performance.

6.3.2 <u>Literature Review</u>

As stated in Section 1.6.2, the literature review consists of an extensive review of published literature related to construction industry JVs, IJVs and PBIJVs, management and project management styles, TQM and Asian culture. The published literature on various aspects of JVs is long and rich. Published literature related to IJVs and PBIJVs in China is similarly available. However, published literature is lacking related to IJVs and PBIJVs for construction megaprojects done by PBIJVs in Asia as a whole. Moreover, the relevant literature is predominantly biased towards a Western perspective

and this situation shall be addressed in an attempt to incorporate a more rounded perspective to the problem statement.

The importance of the literature review as part of the research process is total, indeed, it is fundamental to each research methodology to conduct a literature review. Fellows and Liu (2008) stated that researchers need to know what research has been conducted in the past, which is linked with their research and build upon previous research conclusions and discussions to achieve a return of knowledge. Therefore, it is important that every researcher endeavours to discover what relevant work has already been executed, as well as what theoretical bases apply. Without such a platform of knowledge, it is not possible to acquire any understanding of what has been done and the platform from which progress may be achieved, In summary the literature review serves to:

- define the problem;
- highlight previous research so as not to 'reinvent the wheel';
- highlight methodologies that have been previously used;
- reveal gaps in previous research; and
- suggest areas for further research.

An extensive literature review, both exploratory and in-depth, was done as the initial part of the research process to explore how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia. This literature review captured a wide-range of related literature. As such, the research adopted a cubist methodology (Carter: 1999) to study the management of PBIJVs with multiple views being taken of the subject and multiple data collection instruments being adopted. The cubist research methodology (Carter: 1998) is founded on triangulation in terms of the clarification of meanings by synthesizing multiple views, rather than in terms of the search for perfect replication (Flick: 1992). Although, this approach is argued to be consistent with the overall philosophy of the research design, as depicted by Table 6.6.

Table 6.9: The broadly interpretative philosophy of the research design
Source: Carter (1999)

Dimension	Position	Broad Philosophical Leaning
Theory of Existence (Ontology)	Reality is socially constructed rather than objectively determined	Subjectivity v Objectivity
Theory of Human Nature	Individuals have a degree of choice in their actions	Voluntarism v Determinism
Theory of Knowledge (Epistemology)	Knowledge is understood in terms of patterns of meanings developed from data accumulation	Inductivism v Deductivism
Appropriate Research Strategy	Multiple methods Investigation of sample over time	Interpretivism v Functionalism

As stated by Carter (1999: 11), "management researchers are required to ensure that their method and use of data collection instruments is transparent which means that the choice and consistency in application of the research method is as important as the research findings".

As well as the academic literature, the non-academic literature was also of value to the research in absence of bodies of knowledge associated with the management of PBIJVs in construction and in particular in Asia. However, it was recognized that non-academic literature lacked rigorous method and is open to criticism in terms of representativeness, reliability and validity.

The main purpose of the literature review was to identify and assess the extent of current knowledge on the management of PBIJVs. The literature review was not conducted completely as a discrete phase in the research process. For example, although the extensive literature review shaped the case study interview questions, the informant responses to these questions together with observations and project document review stimulated further literature reviews. The literature review combined focused searches of key words and specialist journals. However, the researcher noted the duty of abstention (Devons and Gluckman: 1982), which meant that although the research was holistic in nature it was essential to abstain from studying some topics deemed to be non-fundamental or to study all topics too deeply.

The next stage of literature review consisted of research design and methodology. As suggested by Easterby-Smith *et al* (2008: 21), "the relationship between data and theory is an issue that has been hotly debated by philosophers for many centuries. Failure to think through philosophical issues such as this, while not necessarily fatal, can seriously affect the quality of management research". After the literature review of research design and methodology, the research process was done in accordance with the three basic stages detailed in Figure 6.5, which are described in more detail in the following section.
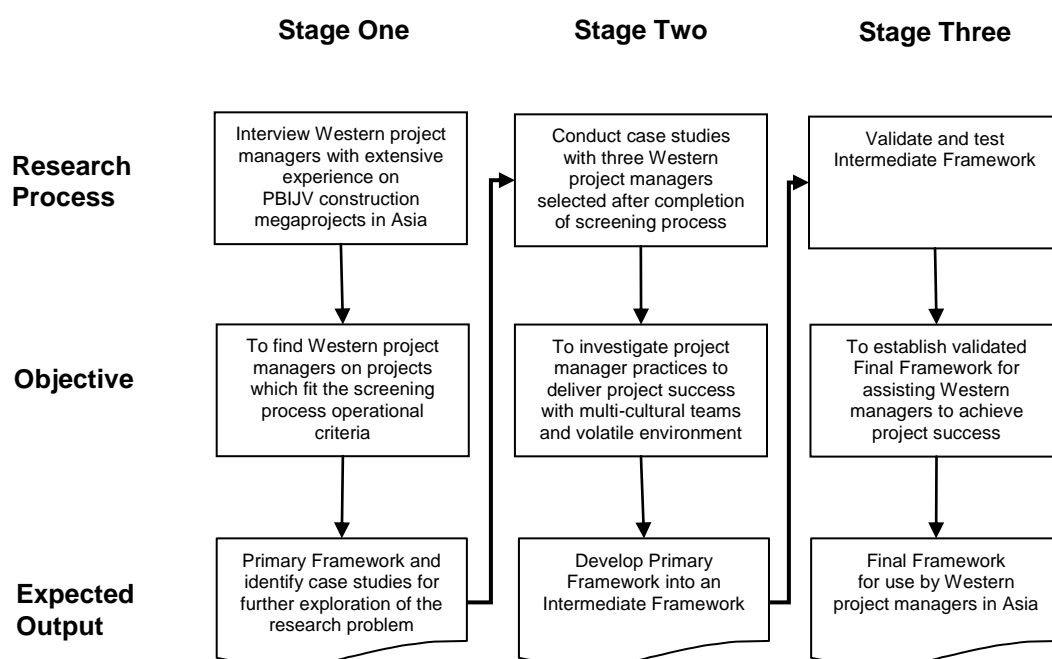
Figure 6.11: Stages of research process after literature review

6.3.3   Stage One – Conceptual Framework and Exploratory Interviews

Pilot study questionnaires, questionnaires and exploratory FTF stage one screening interviews were conducted to identify which Western PBIJV project managers, who managed East-West multicultural teams on construction megaprojects in Asia, and projects alike met the case study criteria. The data from these questionnaire responses and FTF interviews were used to select

the case study project managers and projects. Details of the research process are in Section 6.4.1 and results, analysis and discussion of the interviews are in Chapter Seven.

6.3.4 Stage Two – Case Studies and Framework Development

Three case study project managers and projects were selected from the exploratory FTF interviews conducted in Stage One of the research process. Case studies of these three selected project managers and projects, which were managed by previously interviewed Western PBIJV project managers with East-West multicultural teams on construction megaprojects in Asia, were conducted. These three cases were studied to explore how Western PBIJV project managers could better manage East-West multicultural teams on construction megaprojects in Asia. A management framework for Western PBIJV project managers was developed from these case studies. Details of the research process are in Section 6.4.2. Project details, results, discussions, cross-case analysis of the case studies and the development of the framework are presented in Chapters Seven through to Ten.

6.3.5 Stage Three – Framework Validation

Stage Three, the final stage, of the research process is framework validation. The validation was conducted via a questionnaire with the project managers of the selected case study projects after the Intermediate Framework was established, screening process project managers and other selected construction industry experts with extensive experience in Asia. The workability of the Intermediate Framework was checked to view how it could be used to improve the manner with which Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia. Stage Three of the research process is detailed in Section 6.5 and details of the framework validation are in Chapter Ten.

6.3.6 <u>Limitations</u>

In the same way that research generally has limitations, this research was no different in that there were limitations in its conduct and scope. The main limitation is the applicability of the Final Framework to Asia as a whole. Moreover, generalizability is a recognised limitation of the case study methodology. The following research limitations provide the basis for future research recommendations:

- There were only three case studies in the research.

- The case study part of the research was only represented by Western project managers working in South Korea, which in turn represented the Confucian Asia cluster. Due to screening process non-compliance, it did not include insight from Western project managers working in Thailand, which was intended to represent the Southern Asia cluster as described in Section 1.3.2.

- The case study part of the research was limited to representation of Western project managers working in South Korea. It did not include input from indigenous Eastern project managers working in Asia.

- The case study part of the research was limited to representation of Western project managers from England and America as representative of the Anglo cluster.

- No framework validation input by Eastern project managers working in Asia.

The case study part of the research was on the developer and contractor side of the project delivery team and did not include project client consultant representation. The validation process tried to accommodate this limitation by including two project client consultant respondents out of a total of nine respondents of which four were from the client-side and three from the contractor-side.

6.4   EXPLORATORY INTERVIEWS AND CASE STUDIES

6.4.1 <u>Exploratory Interviews</u>

Introduction

Stage One of the research process, as described in Section 6.3.2, was to gather information from Western PBIJV project managers about how they managed their East-West multicultural teams on construction megaprojects, whether on past or current projects, in Asia and also how project management improvements could be made. The research process adopted the FTF interview technique because interviews can obtain comments from people about their experiences, opinions and feelings (Patton: 2002). Therefore, the interviews were considered as a credible way of obtaining information from Western PBIJV project managers to acquire an insight into their years of working experiences in Asia.

Interviews

<u>Definition of interviews</u>

Frankfort-Nachmias and Nachmias (1996: 232) defined an interview as a "face-to-face, interpersonal role situation in which an interviewer asks participants questions designed to elicit answers pertinent to the research hypothesis". However, Sekaran (1992) argued that in the ever increasingly technological world, interviews need not necessarily be actual FTF but virtual FTF conducted through the medium of telephone or aided by computer technology. Indeed, the easy availability of virtual FTF interaction via a computer screen is becoming commonplace with the widespread availability of the Internet and the Web in the West and Asia alike.

<u>Interview methods</u>

As highlighted by Oppenheim (2003), in simple terms, interviews can be either exploratory or standardized. This research has followed an exploratory FTF interview approach, which is flexible in nature and as such is considered a better opportunity to provide a deeper insight into the research questions and to better address the aim and objectives of the research. Patton (2002) and Schensul *et al* (1999) have argued that exploratory interviews are useful

when an idea is being developed and can lead to a better understanding about how people think and feel about the issues being researched. The exploratory FTF interview approach was used to obtain expert opinion from experienced Western project managers to decide upon the selection of the best available case study projects for further in-depth study through further exploratory FTF interviews. This exploratory FTF interview approach involved gathering the opinions of Western PBIJV project managers with years of working experience in Asia how they managed their East-West multicultural teams on construction megaprojects, past and present, in Asia and also how improvements could be made to achieve project success for all.

It was considered that a standardized interview was not appropriate for this research because it is more associated with data collection taken from a large sample. Furthermore, standardized interviews are more the domain of quantitative rather than qualitative research and this research is qualitative. Therefore, with the small sample available and the research being qualitative rather than quantitative, it was concluded that standardized interviews were not appropriate.

Types of interviews

Interviews are used when the collection of data is considered necessary to understand complex behaviours and processes in depth (Schensul *et al*: 1999 and Patton: 2002). Therefore, interviews need to adhere to an established line of enquiry, but at the same time the researcher needs to facilitate the interview to be fluid rather than rigid in nature. Indeed, interviews can vary in their nature and can be structured, semi-structured and unstructured (Legard *et al*: 2003 and Patton: 2002). However, Nachmias and Nachmias (1996) identified the focused interview, which is a variation of the structured interview, as another category. In the structured interview, the format is more rigid and assumes that the researcher knows exactly what information is needed and has a list of pre-determined questions to ask each and every interviewee. However, in certain instances, the researcher may obtain additional insight by asking unscripted questions dependent upon the

circumstances or answers provided by interviewees. As highlighted by Sekaran (1992: 192), the result of such an interview process is that "new factors might be identified and a deeper understanding might result".

Researchers have neither a pre-determined list of questions, nor a pre-determined structure to ask questions in unstructured or non-directive interviews. Moreover, researchers do not direct interviewees and encourage them to both relate their experiences and reveal their attitudes and perceptions on the subject matter. In this interview method, researchers have the opportunity to probe deeper into the subject matter whenever interviewees are willing to be questioned in depth.

This research followed a semi-structured interview approach with a view to enabling a deeper insight in the research problems by achieving a free flow of information from interviewees. The more flexible nature of such an interview approach also encouraged the interviewees to fully participate in the interview process and expand upon areas of research interest in a more comprehensive way rather than simply answering one dimensional questions (Fellows and Liu: 2008, Patton: 2002 and Schensul et al: 1999).

Advantages and disadvantages of interviews versus postal questionnaires
As highlighted by Sekaran (1992), the main advantage of FTF interviews is that researchers are better able to have a fluid approach and adapt their questions to the flow of each interview in order to not only clarify doubts but also to ensure that interviewee responses are not misunderstood or misinterpreted. As opposed to questionnaires, FTF interviews can provide researchers with not only higher response rates but also more complete response rates. Moreover, a further advantage of FTF interviews is that researchers can meet interviewees in their work environment, which can lead to a better possibility of obtaining project data copies or at the very least viewing project data such as organization charts, project procedures and plans.

However, dependent upon the circumstances, there can be disadvantages in conducting FTF interviews rather than posting questionnaires, such as higher cost and the possibility of researcher bias. For example, it can be very costly to conduct many interviews over a large geographical area with interviewee locations in different cities and even different countries. In terms of researcher bias, the flexible nature of a FTF interview could influence the data collected because facial and verbal cues could influence interviewee answers.

Another disadvantage of conducting FTF interviews is the lack of interviewee anonymity. Some interviewees do not feel at ease to divulge potentially sensitive or confidential information to stranger, even though for research purposes, particularly when the information provided may be used in a research paper for future publication, because the interviewer will have personal details of the interviewee. Such a situation could be tempered if the interviewee already knows the interviewer. Nonetheless, some people simply prefer the solitude of a questionnaire rather than the inquisitive nature of a FTF interview.

Telephone surveys

Traditional telephone surveys can be in the form of a poll, interview or questionnaire and cover a wider geographical area in a short period of time than mailed questionnaires or FTF interviews. However, the disadvantage of the traditional telephone survey is the higher cost as compared with the mailed questionnaire. However, as highlighted previously, selecting the traditional telephone survey form of interview can result in substantial cost savings as compared with conducting FTF interviews if a large geographical area needs to be covered.

The lack of FTF contact in a traditional telephone survey can both be an advantage and disadvantage. For example, the interviewer is less able to give or receive personal cues during the traditional telephone survey, which in turn means less likelihood of a perception of researcher bias. However, it

is also less likely that the interviewer will be able to attain any deep insight into the perceptions, feelings and thoughts of the interviewee through the traditional telephone survey. However, as highlighted in Section 5.4.3, advances in IT provide interviewers the ability to conduct virtual meetings with modes of visual communications available online via Skype personal phone calls with webcams and also on mobile phones with 3G technology is a cost effective way to do a new form of telephone surveys. This technology can be useful for research communication purposes for both virtual FTF interviews and non-traditional telephone surveys.

Approach to interview design

There are three main approaches to interview design for each interview type discussed so far in this section. According to Patton (2002), the difference between the three following approaches is based on the choice of determining and structuring interview questions in advance of the actual interview:

1. informal conversation interview;
2. interview guide approach; and
3. standardised open-ended interview.

Firstly, informal conversation interviews allow interviewers to be spontaneous with their questions during the course of their interviews in context with the flow of the conversation. Indeed, there does not have to be any structure to such an interview with no predetermined questions or topics. Moreover, the relaxed nature of this type of interview can result in the interviewee not really perceiving there is an interview going on but rather just an informal conversation. However, it is nonetheless important that interviewer questions posed during informal conversation interviews have a relevance to the interviewee. The wide-lens flexibility afforded to the interviewer during questioning of the various interviewees can result in different information being collected from each interviewee and the usefulness of such data collected is fully dependent upon the type of questions asked by the interviewer, which can make the organization and analysis of informal

conversation interview data very difficult (Bryman: 2008, Oppenheim: 2003 and Patton: 2002).

Secondly, the interview guide approach is useful in the exploration of research issues are to be explored. In the first instance of the interview guide approach, the interviewer needs to frame the issues, objectives or topics to be addressed by the interview guide, which shall be provided to each interviewees in advance of the interview. The interview guide can allow the interviewee to understand the topic of interview discussion in advance and can also serve as a checklist during the interview so that the interviewer can ensure all the relevant issues have been adequately covered. The interview guide approach is comprehensive and systematic in the collection of research data and should best ensure there will not be any gaps in the data gathered from the interviews (Bryman: 2008, Oppenheim: 2003 and Patton: 2002).

Thirdly, standardized open-ended interview establishes a fixed set of interview questions, which are asked to each and every interviewee. These interview questions are rigid in nature insofar as no probing of answers provided take place. However, this type of interview approach can still address all relevant research issues albeit without follow-up or clarifications of responses given by interviewees due to the inflexible nature of standardized open-ended interviews. However, the uniform nature of the interview data acquired should enable the interviewer to easily compare responses to each interview question posed. Moreover, the possibility of interviewer bias is reduced in standardized open-ended interviews (Patton: 2002).

The interview process for this research followed a combination strategy with a view to achieving a richness of data collection. This combination strategy followed the assertion by Patton (2002) that the three main interview approaches are not mutually exclusive. This research adopted an interview guide approach to ensure that all of the research issues which required

exploration were adequately covered during the interviews. However, the general restriction normally applied to the interview guide approach was removed to enable interviewees to elaborate more on issues that were relevant and important to how Western PBIJV project managers can better manage East-West multicultural teams on complex construction megaprojects in Asia. There was no time restriction imposed upon each interview whenever the interviewee wished to discuss any particular issue at length. This combination approach allowed the objectives of the interviews to be achieved through the guide and expanded the boundary of the interviews, which enabled a good collection of relevant data, all of which is presented in Section 6.4.3.

Interview objectives and guidelines

Exploratory semi-structured interviews were conducted as part of the research process to achieve a return of experience together with opinions of Western PBIJV project managers with years of working experience in Asia about how they manage their East-West multicultural teams on construction megaprojects, past and present, in Asia and also how improvements could be made to achieve project success for all. The objectives of the interview part of the research process were directed at providing a further focus for the research and to select the appropriate project managers and projects for case study (refer to Figure 6.5). The main interview objectives were the following:

- **local construction industry practices** – review the fundamentals of the host country's construction industry and explore how project managers manage and organize their project teams within such an environment to achieve project success;
- **Asian ways of working** – identify the varying impacts that Asian ways and local culture have on the progress of construction megaprojects in Asia;
- **TQM** – identify the key TQM factors, which are considered a part of the construction industry in Asia on construction megaprojects;

- **PBIJVs –** identify the key factors for PBIJVs to achieve project success in Asia and explore how project managers deal with *hard* and *soft* project issues related with management, organizations, politics, feasibility, design, schedule, finance and legal in parallel with cross-cultural management issues; and

- **new ways of working –** identify factors of success and failure in the project management of construction megaprojects by PBIJVs in Asia and determine possible new ways of working for Western expatriate project managers on construction megaprojects in Asia to achieve improvements to project performance.

In order to best achieve these interview objectives, a two-stage interview process was adopted. Firstly, screening interviews were conducted with the aid of an interview guide, which included a questionnaire and was prepared in advance of the interview process and forwarded to each interviewee well in advance of the interviews (refer to Appendix A.23). Secondly, further exploratory interviews were conducted with the selected cases (refer to Appendix A.24).

Selection of interviewees

According to Miles and Huberman (1994), in research, interviews are conducted to understand the perspective of each interviewee in relation to the research questions. As such, the selection of interviewees is a crucial part in ensuring a good insight into the research topic is achieved. However, as argued by Yin (2009), an extensive screening procedure was avoided to ensure the selection process was not a mini case study. In this research, the aim of each interview was to elicit knowledge about the way Western PBIJV project managers with years of working experience in Asia on construction megaprojects managed their projects. A list of recent construction megaprojects in Asia, both past and present, with Western project managers involved at a senior level was produced.

Thereafter, a shortlist of potential interviewees was established. Those potential interviewees were Western PBIJV project managers with years of working experience in Asia on construction megaprojects and were chosen based upon a defined set of operational criteria whereby candidates will be deemed to qualify to serve as cases (Yin: 2009). The operational criteria, as listed in Appendix A.22, consisted of project and personal experience requirements as well as the practical willingness to participate and be interviewed. As argued by Dainty *et al* (2003), traditional success criteria is too simplistic in the context of today's complex construction project environment and a fundamental reason for the selection of these interviewees was to explore practices and opinions from the few Western project managers with years of work experience and knowledge about how they delivered project success in complex work environments in Asia.

Details of the exploratory FTF interviews are provided in Chapter Seven.

Method of analysis

The analysis of qualitative data is a challenging process and requires creativity and systematic searching, and takes place in four stages: data reduction, data display, conclusion drawing and verification. These four stages occur throughout the qualitative research (Miles and Huberman: 1994). The analysis of qualitative data can be done in various ways. When the volume of data is manageable a manual method of data analysis can be chosen, whereas the use of computer-assisted tools is available to analysis large volumes of data (Miles and Huberman: 1994, Seale: 2010, Spencer *et al*: 2003 and Yin: 2009).

A framework method was adopted as the method of qualitative data analysis for this research. This framework method is an analytical process which involves a number of distinct though highly interconnected stages and is an approach which involves a systematic process of sifting, charting and sorting material according to key dimensions and themes. The five key stages to

qualitative data analysis in the framework method are (Ritchie and Spencer: 2002):

- familiarization;
- identifying a thematic framework;
- indexing;
- charting; and
- mapping and interpretation.

The following describes the interview process of FTF interview data analysis.

- The interviews were transcribed verbatim; as such every utterance from the audio used at each interview was transcribed.
- The interview data listed key dimensions, issues and emerging dominant groups.
- Within-case and cross-case assessments of interviewee comments about how construction megaprojects in Asia with East-West multicultural teams managed by Western PBIJV project managers could be improved to achieve project success for all concerned were then done.

The conclusions from the findings of the initial interviews provided the basis for the selection of case study projects. The research design and multiple-case study method are discussed in detail in the following section. The results and analysis of the initial interviews are detailed in Chapter Seven.

6.4.2 Case Studies

Introduction

Stage Two of the research process involved multiple-case studies, which at its heart investigated the management practices of Western project managers with years of working experience with PBIJVs on construction megaprojects in Asia. The case studies investigated how construction megaprojects in Asia with East-West multicultural teams managed by Western PBIJV project managers could be improved to achieve project

success for all concerned within three projects led by the selected project managers who participated in the interviews at the first stage of the research process. The choice of the case study approach was discussed in Section 6.4.1 and this section discusses the research process in detail.

A case study is good for an empirical and comprehensive approach, which in turn is appropriate for the holistic study of a case or cases. The research design adopted needs to be logical to meet the quality criteria of validity and reliability. Moreover, the unit of analysis for the case study must also be clear and confusion between unit of data collection and unit of analysis must be avoided as illustrated in Figure 6.6 (Fellows and Liu: 2008 and Yin: 2009). According to Becker *et al* (2010), a case study approach is comparatively flexible and contextual with an emphasis on exploration rather than prediction, as such it enables the researcher to discover and address issues as they arise. However, case study research is inherently subjective and ethical consideration has to be dealt with comprehensively.

Data Collection Source

	From an individual	From an organization	
About an individual	Individual behavior Individual attitudes Individual perceptions	Individual employee records Interview with individual's Supervisor; other employees	If case is an individual
About an organization	How organization works Why organization works	Personnel policies Organization outcomes	If case is an organization

(Left axis label: **Design**; Right axis label: **Study Conclusions**)

Figure 6.12: Design versus data collection – different units of analysis
Source: Yin (2009)

Yin (2009) highlighted that, despite the comparatively flexible nature of case study research, their distinctive nature means that they have to be precisely

shaped to yield desired results. In terms of context, Fellows and Liu (2008) highlighted that case study research investigates phenomena within context and often the contextual variables are so numerous and qualitatively different no single survey or data collection approach can be appropriately used to collect information about these variables. Therefore, the case study approach is the most appropriate for such research because case studies allow the use of multiple data collection techniques. Moreover, case study research can include both single and multiple-case studies.

To effectively study how Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia, the adoption of multiple data collection techniques is the most appropriate. In the main, this is because of the richness of data required to comprehensively provide an in-depth picture of all the *hard* and *soft* factors involved for a project manager to successfully manage construction megaprojects in Asia. This is in addition to the reason given for the choice of case studies in Section 6.2. The choice of the approach is followed by the selection of an appropriate design to enable the relevant data to be collected. The various designs available and the choice of the design used in this research are discussed in the next part of this section.

Case study design

The case study design is the logical sequence that connects the empirical data to be collected in the research to the initial questions of study and ultimately to its conclusions. It can also be described as the framework within which data are collected and analysed. The case study design is much more than a work plan and the main purpose of the design is to avoid the situation in which evidence does not address the initial research questions (Fellows and Liu: 2008 and Yin: 2009). According to Yin (2009), there are the four following basic types of case study design and Figure 6.7 depicts as a 2 x 2 matrix:

1. single-case holistic;
2. single-case embedded;

3. multiple-case holistic; and

4. multiple-case embedded.

Therefore, case study design can be either single or multiple-case and each in turn can be made up of either holistic or embedded units. The ultimate design choice is dependent on the unit of analysis and the case or cases to be investigated. This research adopted a multiple-case holistic design approach because evidence from multiple cases is often considered more compelling, and the overall study is therefore more robust (Herriott and Firestone: 1983).
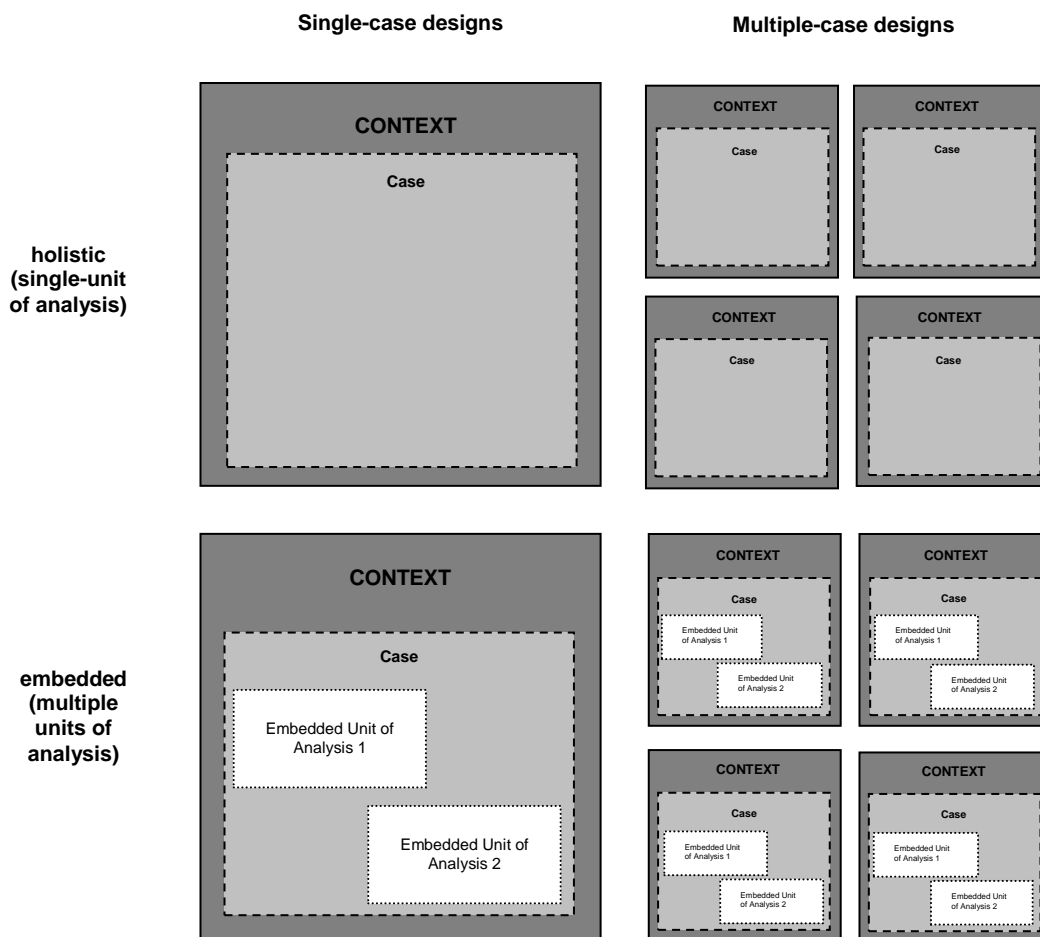
Figure 6.13: Basic types of design for case studies
Source Yin (2009)

This multiple-case study research was conducted using replication, not sampling logic. Moreover, literal rather than theoretical replication was

adopted because the research predicted similar results and not contrasting results. The uniqueness of each case was maintained throughout the research process to ensure that each case retained its contextual individuality. During the cross-case analysis part of the research process structured and standardized processes, collection and methods of analysis were used because standards between cases are required in replication logic (Bryman: 2008, Tellis: 1997 and Yin: 2009). Figure 6.8 illustrates the replication approach to multiple-case studies and an important feature is the dashed-line feedback loop because whenever an important discovery occurs it may well be necessary to reconsider the studies original theoretical propositions, or in this case the Conceptual Framework (Yin: 2009).

Despite the robustness nature of the adopted multiple-case holistic design approach, quality issues still need to be addressed because the research design is supposed to represent a logical set of statements and quality of any given design can be judged according to certain logical tests. Figure 6.9 lists the four widely used tests and the recommended case study tactics together with a cross-reference to when, during the research, each tactic can be used and the following lists the tests relevant to this research (Yin: 2009):

1. **construct validity**: establishment of correct measures for the concepts under study;
2. **internal validity**: establishment of a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from false relationships;
3. **external validity**: establishing the domain to which a study findings can be generalized; and
4. **reliability**: demonstrating that the operations of a study can be repeated with the same results.
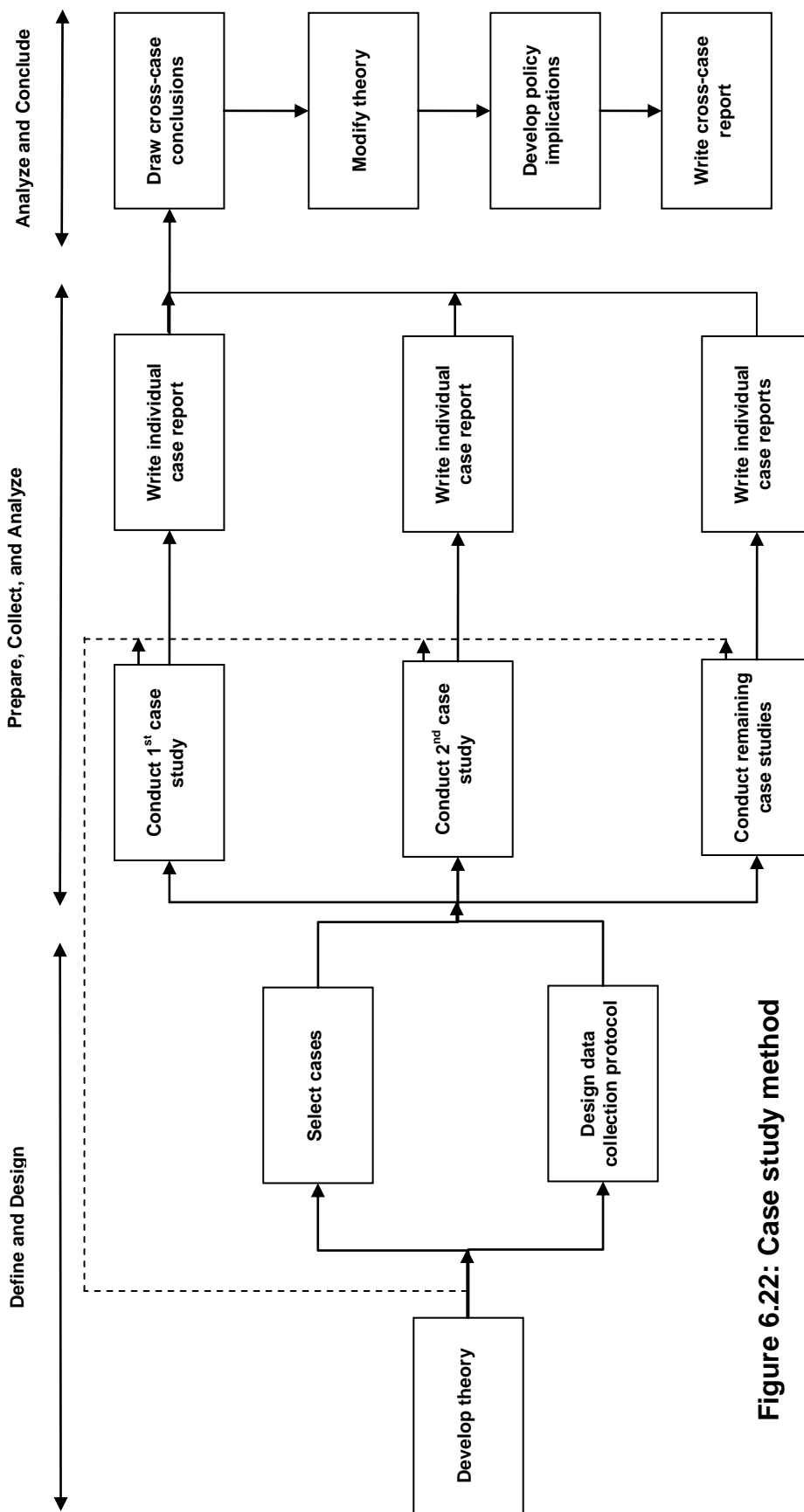
Figure 6.22: Case study method
Source: Yin (2009)

TESTS	Case Study Tactic	Phase of research in which tactic occurs
Construct validity	• use multiple sources of evidence • establish chain of evidence • have key informants draft case study report	data collection data collection composition
Internal validity	• do pattern matching • do explanation building • address rival explanations • use logic models	data analysis data analysis data analysis data analysis
External validity	• use theory in single-case studies • use replication logic in multiple-case studies	research design research design
Reliability	• use case study protocol • develop case study database	data collection data collection

Figure 6.15: Case study tactics for four design tests
Source: Yin (2009)

Cases and units of analysis

There are three levels of specificity, which require definition based on the research questions, namely, cases, units of analysis and single (holistic) or multiple (embedded) units. Firstly, the selection of cases is an extremely important step in the case study research design; therefore, the case study screening process used operational criteria to select cases. Secondly, the unit of analysis is also a critical factor in case studies. This research focused on the views of experienced Western project managers who were ultimately responsible and therefore accountable to achieve project success. Therefore, the unit for analysis was the project manager. Finally, for each unit of analysis there is a choice between adopting single or multiple units of analysis. This research adopted a holistic unit of analysis (Bryman: 2008, Tellis: 1997 and Yin: 2009). The levels and units defined for this research are summarized in Table 6.7.

Table 6.10: Levels and units defined for the research

Level	Units defined for the research
Cases	Construction megaprojects in Asia managed by Western PBIJV project managers
Unit of analysis	Western PBIJV project managers (opinions)
Embedded/Holistic	Holistic

The multiple-case study approach was used to explore how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia through the investigation of three case study projects managed by Western PBIJV project managers with years of experience on construction megaprojects in Asia. Case study questions were prepared to address the research objectives to identify the key factors to improve how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia.

The project manager practices explored within this research operated within the project environments and the selected cases for this research were construction megaprojects in Asia managed by Western PBIJV project managers.

The Western PBIJV project managers were defined as the unit of analysis. This is because the research focused on the practices employed by Western PBIJV project managers to achieve megaproject success in Asia within a multicultural dispersed team. This exploration of project manager practices is based upon the opinions of project managers and did not include views of other project team members who although had opinions were not ultimately neither responsible nor accountable for the project manager decision-making role and filly aware of the 'full picture' upon which project managers made decisions.

Screening and case selection

Eisenhardt (1989) highlighted that the selection of cases is an important aspect of building theory from case studies and that there are two differing options available for the selection of cases, namely random selection and theoretical sampling, i.e. cases are chosen for theoretical, not statistical reasons (Glaser and Strauss: 1967), and argued that random selection is neither necessary, nor even preferable and the goal of theoretical sampling is to choose cases which are likely to replicate or extend the emergent theory. Moreover, Miles and Huberman (1994) argued that the random selection of cases reduces the potential richness and variety of findings in case studies.

However, cases in a multiple-case study are not 'sampling units' and should not be chosen for such a reason and the aim should be toward analytic generalization, namely to expand and generalize a theory. Moreover, cases should be chosen as a laboratory investigator selects the topic for a new experiment. Indeed, because sampling logic should not be used, the typical criteria regarding sample size are irrelevant. Instead, selection of cases is a reflection of the number of case replications where two or three literal replications could suffice but is nonetheless a discretionary, judgmental choice. From a purely practical point of view, convenience, access and geographic proximity can be the main criteria for ultimately selecting case studies (Yin: 2009).

Two or three replications are, therefore, considered reasonable. This research selected three cases to reflect the reasonable number of replications presented by Yin (2009). The three case studies for this research were carefully selected based upon the following main criteria.

- The project had to be run by a PBIJV, located in either Korea or Thailand, of sufficient size to be classified as a megaproject, managed by a Western project manager with years of previous successful work experience in Asia on construction megaprojects and comprising of a multicultural dispersed project team. The exploratory interviews were

conducted during the first stage of the research process to ensure compliance.

- The cases in aggregate had to include construction megaprojects from both Thailand and South Korea because these two countries are in two separate Asian culture clusters of Southern Asia and Confucian Asia respectively, which in aggregate represent Asia as a whole and where China and Japan are housed in the Confucian Asia cluster.

- The construction megaproject had to be managed by a Western project manager with years of experience working in PBIJVs in Asia because the exploratory interviews explored how Western PBIJV project managers can better manage East-West multicultural teams on complex construction megaprojects in Asia.

- Ease of access to the project manager and project data could be achieved without fuss or encumbrance for an in-depth exploratory study. This access enabled the follow-up to explore and investigate in more detail any issues, which required more explanation or document content, which required clarification.

Data collection

Introduction

Research data may be categorized as primary and secondary data. Primary data are data generated by the researcher using data gathering techniques, and secondary data are those that have been generated by others and are included in data-sets, case materials or manual databases or published by various private and public organizations or government departments. In this research primary data collected by the researcher are used.

The sources of evidence most commonly used in case study research for data collection are documentation, archival records, interviews, direct observations, participant observation and physical artefacts. No single source of evidence has a complete advantage over the others. Indeed, it is recommended to use as many sources as possible because the various

sources are complementary of each other. These sources have strengths and weaknesses as detailed in Figure 6.10 (Yin: 2009).

SOURCE OF EVIDENCE	Strengths	Weaknesses
Documentation	• Stable – can be reviewed repeatedly • Unobtrusive – not created as a result of the case study • Exact – contains exact names, references, and details of an event • Broad coverage – long span of time, many events, and many settings	• Retrievability – can be difficult to find • Biased selectivity, if collection is incomplete • Reporting bias – reflects (unknown) bias of author • Access – may be deliberately withheld
Archival records	• *[Same as those for documentation]* • Precise and usually quantitative	• *[Same as those for documentation]* • Accessibility due to privacy reasons
Interviews	• Targeted – focuses directly on case study topics • Insightful – provides perceived causal inferences and explanations	• Bias due to poorly articulated questions • Response bias • Inaccuracies due to poor recall • Reflexivity – interviewee gives what interviewer wants to hear
Direct observations	• Reality – covers events in real time • Contextual – covers context of "case"	• Time-consuming • Selectivity – broad coverage difficult without a team of observers • Reflexivity – event may proceed differently because it is being observed • Cost – hours needed by human observers
Participant-observation	• *[Same as above for direct observations]* • Insightful into interpersonal behavior and motives	• *[Same as above for direct observations]* • Bias due to participant-observer's manipulation of events
Physical artefacts	• Insightful into cultural features • Insightful into technical operations	• Selectivity • Availability

Figure 6.16: Six sources of evidence – strengths and weaknesses
Source: Yin (2009)

The sources of data from which data were used in this multiple-case study research are justified below and are based upon the strengths and weaknesses of each source highlighted in Figure 6.10.

Choice of sources of evidence

Questionnaires, interviews, direct observations and documentation were the main methods of data collection in this research, where interviews with project managers provided most of the data, particularly those sources associated with *soft* project management issues. Data on PBIJV organization and project management procedures and processes were collected through the use of documentation as well as from questionnaire responses and interviews. Open access to certain archival records was limited due to

reasons of copyright and confidentiality and participant-observation was not adopted. The case study included a longitudinal element. Observations were over a lengthy period and an additional longitudinal element was injected into the research by analysing archival information and retrospective interviewing (Bryman: 2008).

Pilot studies

Piloting and pre-testing questions was done during both stage one for the project manager screening process and stage two for case studies of the research process. It was considered important to implement a pilot study for the following reasons (Bryman: 2008).

- Provide interviewer with experience in using it and confidence.
- Identify questions which are not understood.
- Identify poorly worded or badly phrased questions.
- Avoid confusing positioning of question layout.
- Determine adequacy of instructions to interviewees.
- Consider adequacy of flow of questions and general layout.

Two experienced construction professionals were chosen to participate in the pilot studies and both were comparable in terms of working location experience to the project managers selected to participate in the stage one screening process. The following lists out the relevant details of the pilot study participants.

Pilot Study Participant A

The following are the personal details of Pilot Study Participant A:

- nationality: British
- sex: male
- age: 50
- employer type: Consultant
- project job title: Managing Director
- professional qualifications: BSc and LLM
- location: Singapore

- number of years as a full-time expatriate: 18

- language ability: English

- single/married in-country status: married

- nationality of wife: English

- in-country dependents: two

Pilot Study Participant B

The following are the personal details of Pilot Study Participant B:

- nationality: British

- sex: male

- age: 48

- employer type: Consultant

- project job title: General Manager

- professional qualifications: RICS

- location: Thailand

- number of years as a full-time expatriate: 22

- language ability: English

- single/married in-country status: divorced

- nationality of wife: (ex) Thai

- in-country dependents: three

Interviews

The semi-structured FTF type of interview was chosen and adopted as a key method for data collection. As highlighted in Figure 6.10, the strengths of interviews as a source of evidence is that they are targeted and insightful. Many of the *soft* project management issues dealt with on a daily basis are neither officially recorded nor discussed with most, if any, of the project team. As such, the only way to investigate such issues fully is through FTF interviews. Moreover, the FTF interviews enabled the required level of probing without losing control on issues that had to be discussed with the support of an interview guide. However, persistent questioning was avoided to eliminate bias and interviewees were selected because of their in-depth or expert knowledge of the research problem.

Each of the selected project managers was interviewed and the average duration of each interview was approximately three hours.

Documentation

The interviewees enabled access to a great deal of documentation. The documentation accessed and utilised during the course of research included the following.

- **Company profiles** – this background information gave an indication of the size of each PBIJV partner, their particular speciality and strengths within the PBIJV and their core stated policies and culture.
- **Project profiles** – this gave details of the size and duration of project, and the stakeholders involved in project implementation.
- **Project specific plans** – comprising of work plans and project management plans framing out project management objectives, project overview, project structure and organization, project communication, document management, quality management, scope management, risk management, time management, cost and finance management, human resource management; and subsequent documents providing more detailed operating procedures and management procedures for project management, design management, procurement, manufacturing, installation, testing and asset management; all to show the way each PBIJV formally intended to manage their project.
- **Organization charts** – to illustrate the formal reporting hierarchy of the PBIJV, the company origin of each person shown on organization chart and the function of various dispersed project team members.
- **PBIJV partner agreements –** to show the PBIJV responsibility matrix defining what each PBIJV was contracted to do and subsequent agreements executed between the partners and government.
- **Project agreements –** to show the format, language and the range of companies contracted by the PBIJV.

Observation

Observation of the context of each case was an important part of the data collection technique. However, observation can be difficult and complex, as highlighted by Figure 6.10 there are strengths and weaknesses of the technique. As well as observation, Kellehear (1993) referred to simple observation as a non-intrusive measure available to researchers to collect research data. The following lists all the sources of non-intrusive data (Kellehear: 1993):

1. audio-visual records – photographs, film and television and music;
2. written records – official statistics (government and private); books, academic journals, newspapers and popular magazines; government business and other administrative records; personal diaries, letters and journals;
3. simple observations (also called non-participant observations) – exterior physical signs, expressive movements, physical location, language behaviour and time duration; and
4. material culture, e.g. wear and tear on books or journals as an indicator of their popularity and use.

However, Kellehear (1993) highlighted that non-intrusive data does not include information collected from interviews, questionnaires, manipulative experiments or tests.

Observation needs considerable time, effort and resources and is also susceptible to observer bias. The case study projects had been observed for a number of years, so the first potential weakness of observation was not encountered throughout the research. To remove observer bias, opinions formed or trends observed were verified through the FTF interviews conducted with the project managers. Audio records were taken from the FTF interviews.

<u>Pros and cons of data selected data collection methods</u>

Introduction

The pros and cons of the selected research techniques used for data collection are highlighted in the following sub-sections, which is a consolidation of the strengths and weaknesses listed in Figure 6.10 and discussed throughout Chapter.

Interviews

Table 6.8 shows the pros and cons of interviews.

Table 6.11: Pros and cons of interviews

Pros	Cons
Personal contact with direct feedback	Time consuming for all concerned
Elicit insight	Needs to be well prepared and structured
Obtain unexpected knowledge	Easy to waste time
Opinions aired candidly	Common availability of participants
Interviewee openness with anonymity	Not as qualitative as a questionnaire
Questions planned in advance	Reduced openness without anonymity
Flexibility of discussion	Prone to interviewer error and/or bias
Opportunity to clarify questions & answers	Flexibility
Opportunity to probe	Data difficult to analyse
Topics explored in-depth	Costly if interviewees in different locations

Direct Observations

Table 6.9 shows the pros and cons of direct observations.

Table 6.12: Pros and cons of direct observations

Pros	Cons
Useful if no available reference documents	People inhibited if under 'surveillance'
First-hand observation of actual situations	Time consuming
Visual understanding of ways of working	Observer interfering with operations
Observe interaction between personnel	Not efficient
Assists in analysing how things are done	Can miss one-off events

Questionnaires

Table 6.10 shows the pros and cons of questionnaires.

Table 6.13: Pros and cons of questionnaires

Pros	Cons
Minimise costs	Non-returns
Standardise data-gathering procedure	Misinterpretation of answers given
Minimise human error	Validity of answers provided
Eliminate bias	Poorly worded questions
Obtain necessary level of privacy	Biased questions
Obtain a lot of data over a short duration	Wrong questions
Flexible timing for respondents to answer	Misinterpreted questions
If anonymity provided more honest answers	Difficult to expand upon responses given
Questions can be planned in advance	Impersonal (not FTF)

Case Studies

Table 6.11 shows the pros and cons of case studies.

Table 6.14: Pros and cons of case studies

Pros	Cons
Flexible	Subjective
All-inclusive	Time-consuming to collect data
Emphasis on context	Time-consuming to analyse data
Useful for studying a limited number of cases in depth	Costly
Describes complex issues	Relevant to only a few people
Individual case information	Difficult to make quantitative predictions
Within-case and cross-case comparisons and analysis	Difficult to test hypotheses and theories with large participant pools
Personal experiences of issues with insight	Low credibility within certain groups
In-situ context	Results can be influenced by personal biases

Stage One Interviewee Details

As part of the research process it was necessary to select Western project managers with current experience on projects, which best fitted the screening process operational criteria as detailed in Appendix A.22. Miles and Huberman (1994) indicated that the interviewee selection is crucial to the depth and richness of information obtained in an exploratory research.

Therefore, a great deal of effort was taken in the process of sourcing potential case study interviewees. The first stage of this process was to find eligible candidate project managers and projects. Ten potential candidates were sourced through a combination of the expatriate network, construction membership networks in the Royal Institution of Chartered Surveyors ("**RICS**"), the Chartered Institute of Building ("**CIOB**") and Chambers of Commerce in Korea and Thailand. These candidates were approached by e-mail and phone to ascertain their willingness to participate in the stage-one screening interview process and all except for two of the potential candidates agreed to participate. Eight potential candidates agreed to participate.

In advance of each interview, the interviewees were provided with an interview guide comprising of a basic questionnaire and interview subject matter (refer to Appendix A.23). The interview process was semi-structured and the interview guide subject matter was a catalyst for probing questions.

The aim of the eight stage-one exploratory semi-structured interviews was to obtain data to screen the eligibility of each candidate and project, based upon the operational criteria, to explore the opinions of Western project managers, with actual working experience on construction megaprojects at the fore of PBIJVs in Asia, about how to manage East-West multicultural teams on construction megaprojects in Asia, and finally to assess the further willingness of each candidate to enable case study participation.

This section describes the key roles played by these project managers who were interviewed as part of the research process and reviews the broad fundamentals of the projects, which these managers had most recently worked on or were currently working on.

Role of Interviewees

At the initial stage of approaching the Western project managers to be part of this interview process, they were each guaranteed anonymity should they agree to participate. This was considered necessary to obtain opinions

without fear of retribution either personal or corporate. Therefore, for reasons of confidentiality the names of the project managers who agreed to be interviewed for this research have not been divulged and project names have not been given.

Project Manager A

The following are the personal details of Project Manager A ("**PMA**"):

- nationality: British
- sex: male
- age: 58
- employer type: Developer
- project job title: Executive Vice President Project Management
- professional qualifications: BSc and MCIOB
- location during project: in-country (Korea)
- number of years as a full-time expatriate: 22
- number of years as a full-time expatriate in-country: 15
- language ability: English, Spanish
- single/married in-country status: married
- nationality of wife: Korean
- in-country dependents: five
- three words to describe personality:
    - serious
    - open-minded
    - not interested in detail
- three most important personal attributes to manage successfully in Asia:
    - tolerant of other cultures
    - must have expertise to be respected
    - ethical

Project Manager B

The following are the personal details of Project Manager B ("**PMB**"):

- nationality: American

- sex: male
- age: 41
- employer type: Real estate developer
- project job title: Vice President Development
- professional qualifications: BSc (Real Estate)
- location during project: remote (Atlanta, America)
- number of years as a full-time expatriate: six years (part-time)
- number of years as a full-time expatriate in-country: none
- language ability: English
- single/married in-country status: single
- nationality of wife: American
- in-country dependents: none
- three words to describe personality:
  - personable
  - diligent
  - aggressive
- three most important personal attributes to manage successfully in Asia:
  - patience
  - adaptability
  - diligence

Project Manager C

The following are the personal details of Project Manager C ("**PMC**"):

- nationality: French
- sex: male
- age: 48
- employer type: specialist transport systems provider
- project job title: Project Director
- professional qualifications: Master degree (Engineering)
- location during project: in-country (Korea)
- number of years as a full-time expatriate: 12
- number of years as a full-time expatriate in-country: three

- language ability: French, English, Spanish

- single/married in-country status: married

- nationality of wife: French

- in-country dependents: wife

- three words to describe personality:

    o rigour

    o customer centric

    o leadership

- three most important personal attributes to manage successfully in Asia:

    o patience

    o customer respect

    o negotiation

Project Manager D

The following are the personal details of Project Manager D ("**PMD**"):

- nationality: French

- sex: male

- age: 54

- employer type: specialist transport systems provider

- project job title: Project Manager

- professional qualifications: Graduate Engineer from Ecole Nationale Supérieure d'Electricité et de Mécanique (Nancy, France), Masters in Power Electronics

- location during project: in-country (Thailand)

- number of years as a full-time expatriate: none

- number of years as a full-time expatriate in-country: two

- language ability: French, English

- single/married in-country status: married

- nationality of wife: French

- in-country dependents: five

- three words to describe personality:

    o open to challenges

- o   good communication skills

- o   ability to work in multi-cultural environment

- three most important personal attributes to manage successfully in Asia:

    - o   patience

    - o   open to changes

    - o   consensual approach

Project Manager E

The following are the personal details of Project Manager E ("**PME**"):

- nationality: British

- sex: male

- age: 61

- employer type: Developer

- project job title: Director Project Management

- professional qualifications: BSc CEng MICE

- location during project: in-country (Korea)

- number of years as a full-time expatriate: 35

- number of years as a full-time expatriate in-country: five

- language ability: English

- single/married in-country status: married

- nationality of wife: Turkish

- in-country dependents: none

- three words to describe personality:

    - o   determined

    - o   compassionate

    - o   honest

- three most important personal attributes to manage successfully in Asia:

    - o   patience

    - o   ability to listen

    - o   structured thought process

Project Manager F

The following are the personal details of Project Manager F ("**PMF**"):

- nationality: American
- sex: male
- age: 68
- employer type: Developer
- project job title: Director, Development & Construction
- professional qualifications: Civil Engineer
- location during project: in-country (Korea)
- number of years as a full-time expatriate: 32
- number of years as a full-time expatriate in-country: six
- language ability: English
- single/married in-country status: married
- nationality of wife: American
- in-country dependents: one
- three words to describe personality:
    - confident
    - affable
    - outgoing
- three most important personal attributes to manage successfully in Asia:
    - patience
    - understanding the local culture
    - being flexible

Project Manager G

The following are the personal details of Project Manager G ("**PMG**"):

- nationality: French
- sex: male
- age: 52
- employer type: specialist transport infrastructure provider
- job title: construction manager
- professional qualifications: civil engineering degree

- location during project: in-country (Thailand)

- number of years as a full-time expatriate: 2

- number of years as a full-time expatriate in-country: 2

- language ability: English, French

- single/married in-country status: single

- nationality of wife: French

- in-country dependents: none

- three words to describe personality:
    - good sense
    - open
    - social

- three most important personal attributes to manage successfully in Asia:
    - observe local cultures/rules
    - mutual respect
    - exemplary professional behaviour

Project Manager H

The following are the personal details of Project Manager H ("**PMH**"):

- nationality: French

- sex: male

- age: 35

- employer type: specialist transport systems provider

- job title: Project Manager

- professional qualifications: Electrical engineering degree (France)

- location during project: in-country (Korea)

- number of years as an expatriate: 12

- number of years as an expatriate in-country: six

- language ability: French, English, German

- single/married in-country status: married

- nationality of wife: Korean

- in-country dependents: one

- three words to describe personality:

- o open-minded
- o laid back
- o curious
- three most important personal attributes to manage successfully in Asia:
  - o tolerant
  - o adventurous
  - o patient

Basic Overview of Projects

The project managers interviewed were working on a variety of construction megaprojects including railway infrastructure, railway systems, reclaimed land mixed-use development and brown field site mixed-use development. These projects were executed by PBIJVs in Asia with the involvement multi-cultural teams. The next part of this section provides details for each project.

Project A

Project A is a mixed-use development on 1,500 acres of reclaimed land as part of a larger development enabled by a free economic zone authority in Songdo, Korea. This project comprises of high-rise and low-rise residential towers, offices, international hospital, international school, department store, central park with underground parking, hotel, convention centres, museum, cultural centre, golf course and villas. The government committed US$10 billion to provide the infrastructure works, which includes highways, utilities, local schools and a subway link. The following lists the basic details of Project A:

- location: South Korea
- year of PBIJV inception: 2003
- PBIJV partners/nationalities: Two/American and Korean
- direct government involvement in project: none
- lead PBIJV partner at inception: American
- PBIJV partner shareholding at inception: American 70 : Korean 30
- composition of project team:
  - o Developer – American PBIJV partner

- o Primary consultants – International (mainly American)
- o General contractor - Korean PBIJV partner
- locations of project team:
  - o Developer – America and Korea
  - o Primary consultants – mainly America
  - o General contractor – Korea
- approximate project cost: US $30 billion
- master plan approval: 2005
- scheduled duration for design and construction: nine years
- number of project phases: two
- contract language: initially English then changed to Korean
- project funding: US $2.5 billion from local consortium (PBIJV partner equity, and local and international financing)

Project B

Project B is a large multi-use project built on approximately 1,500 acres of reclaimed land as part of a larger development enabled by a free economic zone authority in Songdo, Korea. This project comprises of a 151-storey high twin tower building, infrastructure, and mixed-use development, which includes hotels, serviced apartments, office buildings, parks, cultural centre, sports facilities, residences, schools, retail, mixed use, officetel, theme zone, hospitals, lake, waterside parks, golf courses, golf villas, a club-house and parking garages. The government shall provide the infrastructure works, which includes highways, utilities, local schools and a subway link. The following lists the basic details of Project B:

- location: South Korea
- year of PBIJV inception: 2006
- PBIJV partners/nationalities: four/American and Korean
- direct government involvement in project: yes
- lead PBIJV partner at inception: American
- PBIJV partner shareholding at inception: American 40 : Korean 60
- composition of project team:
  - o Developer – American PBIJV partner

- o Primary consultants – International (mainly American)
- o General contractor - Korean PBIJV partner
- locations of project team:
    - o Developer – America and Korea
    - o Primary consultants – mainly America
    - o General contractor – Korea
- approximate project cost: US $17 billion
- scheduled master plan approval: 2010
- scheduled duration of design and construction: 12 years
- scheduled number of project phases: three
- contract language: English and Korean
- project funding: Initially through equity. Initial development funding entailed equity, senior debt and project funding through residential unit sales.

Project C

Project C involves the provision of rolling stock (24 six-car train sets), signalling, electric power supply, SCADA, telecommunications and platform screen doors over two distinct phases for a rail link from the central train station of a capital city and two international airports. This 60-km airport rail link with commuter and express services comprised of on-grade and underground sections with ten stations and a depot. The first phase comprises of a 37.6-km line and the second phase a 20.4-km line segment. The first phase became operational for public use on 23 March 2007 and the remaining length of 20.4-km to Seoul Station, the second phase, is scheduled to be operational by the end of 2010. Project C is for the first phase. This airport rail link was initially announced to the public in July 1998. However, the commencement was delayed due to the Asian financial crisis. After significant delays, infrastructure works commenced in 2001 following on from the opening of the new international airport. The following lists the basic details of Project C:

- location: South Korea
- year of PBIJV inception: 2002

- PBIJV partners/nationalities: three/French and Korean
- direct government involvement in project: yes
- lead partner at inception: French
- PBIJV partner shareholding at inception: French 55 : Korean 45
- composition of project team:
  - concessionaire – Korean
  - E&M contractor – PBIJV
  - sub-contractors – mainly Korean
- locations of project team:
  - concessionaire – Korea
  - E&M contractor – Korea and France
  - sub-contractors - Korea
- approximate project price: US$ 460 million (overall project in excess of US$ 25 billion)
- duration of project design and construction: 2002-2010
- contract language: English

Project D

Project D involved the provision of track work to the initial underground metro project in Bangkok, Thailand. This 21-km metro comprised of 18 stations and an on-grade depot. The infrastructure works commenced on 19 November 1996 and experienced delays not only because of the Asian financial crisis but also because of the challenging clay soil conditions. The line became officially operational for public use on 3 July 2004. The following lists the basic details of Project D:

- location: Thailand
- year of PBIJV inception: 1999
- PBIJV partners/nationalities: two/French and Thai
- direct government involvement in project: yes
- lead partner at inception: French
- PBIJV partner shareholding at inception: not disclosed
- composition of project team:
  - track work contractor – PBIJV

- - specialist suppliers – mainly European
  - labour sub-contractors – Asian
- locations of project team:
  - track work contractor – Thailand
  - specialist suppliers – Europe
  - sub-contractors - Thailand
- approximate project price: US$ 100 million (overall project in excess of US $35 billion)
- duration of design and construction: 1999-2002 (32 months)
- project phases: one
- contract language: English
- project funding: JBIC

<u>Project E</u>

Project E is a multi-use commercial development of 650,000 square metres in Yeouido, one of the central business districts of Seoul, and comprises of a 72-storey and 56-storey office tower, 100,000 square metres of retail and a hotel on a seven storey basement with central plant and car park spaces. The following lists the basic details of Project E:

- location: South Korea
- year of PBIJV inception: 2002
- PBIJV partners/nationalities: Two/Malaysian and Korean
- direct government involvement in project: none
- lead PBIJV partner at inception: Malaysian
- PBIJV partner shareholding at inception: not disclosed
- composition of project team:
  - Developer – Malaysian
  - Primary consultants – International (mainly British)
  - General contractor - Korean
- locations of project team:
  - Developer – Malaysia and Korea
  - Primary consultants – mainly the UK and Hong Kong
  - General contractor – Korea

- approximate project price: US$ 2 billion

- master plan approval: 2005

- scheduled duration of design and construction: 2004-2008 (4 years)

- scheduled number of project phases: Three

- contract language: English

- project funding: 20% equity, 80% project funding by local and international financing

Project F

Project F is a mixed-use project consisting three office towers, approximately 250,000 square meters, seven levels of underground retail and parking, 435-key hotel and a pedestrian subway connection between the development's mall and a subway station. The following lists the basic details of Project F:

- location: South Korea

- year of PBIJV inception: 2006

- PBIJV partners/nationalities: four/American and Korean

- direct government involvement in project: yes

- lead PBIJV partner at inception: American

- PBIJV partner shareholding at inception: 100% Korean (legally)

- composition of project team:
    - Developer – American
    - Primary consultants – American (Korean for code compliance)
    - General contractors - Korean

- locations of project team:
    - Developer – America and Korea
    - Primary consultants – America
    - General contractor – Korea

- approximate project price: US$ 1.5 billion

- master plan approval: 2006

- scheduled duration of design and construction: 2004-2010 (72 months)

- scheduled number of project phases: three

- contract language: English

- project funding: local bank financing

Project G

Project G (same as Project D) involved the provision of track work to the initial underground metro project in Bangkok, Thailand. The following lists the basic details of Project G:

- location: Thailand
- year of PBIJV inception: 1999
- PBIJV partners/nationalities: two/French and Thai
- direct government involvement in project: yes
- lead partner at inception: French
- PBIJV partner shareholding at inception: not disclosed
- composition of project team:
  - o track work contractor – PBIJV
  - o specialist suppliers – mainly European
  - o labour sub-contractors – Asian
- locations of project team:
  - o track work contractor – Thailand
  - o specialist suppliers – Europe
  - o sub-contractors - Thailand
- approximate project price: € 100 million (overall project in excess of US$ 35 billion)
- duration of design and construction: 1999-2002 (32 months)
- project phases: one
- contract language: English
- project funding: JBIC

Project H

Project H was part of the second phase of the high-speed rail system between Seoul and Busan. The overall project initially started in 1992. The second phase of the project involved the provision of E&M systems to 150km of the new high-speed train system between Daegu and Busan, which

included four new high-speed train stations. The following lists the basic details of Project H:

- location: South Korea
- year of PBIJV inception: 2006
- PBIJV partners/nationalities: four/French and Korean
- direct government involvement in project: yes
- lead partner at inception: Korean
- PBIJV partner shareholding at inception: French 37 : Korean 63
- composition of project team:
    - concessionaire – Korean
    - E&M contractor – PBIJV
    - sub-contractors – Korean
- locations of project team:
    - concessionaire – Korean
    - E&M contractors – Korea and France
    - sub-contractors - Korean
- approximate project price: € 147.3 million (overall project in excess of US$ 18 billion)
- duration of project design and construction: 2006-2010 (48 months)
- Project phases: one
- contract language: Korean
- project funding: Government / public funded

Screening Process Compliance

The selection of cases is an extremely important step in the case study research design and the unit of analysis is also a critical factor in case studies. This research focused on the views of experienced Western project managers who were ultimately responsible and therefore accountable to achieve project success. Therefore, the unit for analysis was the project manager. The case study screening process used operational criteria as part of the process to select cases as detailed in Appendix A.22. The interviews were analysed using a thematic framework.

Screening Process Operational Criteria Compliance

Project A met the criteria of being a construction PBIJV megaproject in Korea. PMA became actively involved on project A at the JV inception stage and was responsible for establishing the project management organisation as PBIJV leader. However, the initial PBIJV shareholder distribution was re-configured in 2009 due to the global financial credit crisis of 2008. PMA left the PBIJV in 2010. At the time of interview, the interviewee was still based in Korea.

Project B met the criteria of being a construction PBIJV megaproject in Korea. PMB became actively involved on project B at the project inception stage and was responsible for sourcing PBIJV partners and negotiating with local government regarding real estate development. However, the initial PBIJV shareholder distribution was re-configured in 2010 due to the global financial credit crisis of 2008 and construction activities have not progressed since 2010 due to external political problems. PMB had never been based in Korea on a full-time basis. At the time of interview, the interviewee was head office based in the US.

Project C did not meet the criteria of being a construction PBIJV megaproject, although it was one of the construction packages, which collectively formed a megaproject in Korea. PMC became actively involved on project C after the implementation design was approved by government and remained on the project until the train system became operational for public use in 2007. At the time of interview, the interviewee was project based in Mexico.

Project D did not meet the criteria of being a construction PBIJV megaproject, although it was one of the construction packages, which collectively formed a megaproject in Thailand. PMD became actively involved on project D after the design had been approved for construction and remained on the project until the train system became operational for public use in 2002. This was the first time PMD had worked on an international project as an expatriate. PMD

has remained as an expatriate. At the time of interview, the interviewee was based in the Middle East.

Project E met the criteria of being a construction PBIJV megaproject in Korea. PME became actively involved on project E at the outset of the design stage. The progress of Project E was suspended in October 2010 at 25% completion due to a significant problem between the land owner and developer. PME left the PBIJV at the end of 2010 to work on a project in the Middle East. At the time of interview, the interviewee was based in the Middle East.

Project F met the criteria of being a construction PBIJV megaproject in Korea. PMF became actively involved on project F at the outset of the design stage and has remained on the project, which is scheduled for completion in 2013. At the time of interview, the interviewee was project based in Korea on project F.

Project G did not meet the criteria of being a construction PBIJV megaproject, although it was one of the construction packages, which collectively formed a megaproject in Thailand. PMG became actively involved on the project as a design manager during the design approval process and soon after the commencement of construction took charge of the project management of construction activities on site through to completion of the construction. At the time of interview, the interviewee was project based in Israel.

Project H did not meet the criteria of being a construction PBIJV megaproject, although it was one of the construction packages, which collectively formed a megaproject in Korea. PMH became involved on project H at the installation stage of the project. PMH had also worked on project C initially as a project manager for the signalling system during the design stage and latterly as an integration system manager during the installation stage. At the time of interview, the interviewee was head office based in Singapore.

Table 6.12 summarises the results of operational criteria screening process as derived from the stage one interview process.

Only PMB failed to meet in full Part A of the screening process operational criteria. However, projects C, D, G and H were individually of an insufficient size to be classified as a megaproject, although they did each form part of an overall megaproject. Therefore, PMA, PME and PMF were selected for case study purposes. Unfortunately, based upon the sourced potential candidates, the screening process operational criteria excluded the project managers from the projects in Thailand.

Table 6.15: Screening process for operational criteria compliance

		Project Managers							
	Operational criteria	PMA	PMB	PMC	PMD	PME	PMF	PMG	PMH
A	Project Manager must								
1	accept to participate in screening process	√	√	√	√	√	√	√	√
2	be of Western origin	√	√	√	√	√	√	√	√
3	have years of project manager experience on construction projects	√		√	√	√	√	√	√
4	have international experience on projects full-time in-country in Asia	√		√	√	√	√	√	√
5	accept future participation in research and access to project data	√	√	√	√	√	√	√	√
B	Project Manager must have worked on a construction project								
1	run by a PBIJV	√	√	√	√	√	√	√	√
2	located in Korea or Thailand	√	√	√	√	√	√	√	√
3	of sufficient size to be classified as a megaproject	√	√			√	√		
4	comprising of multi-cultural dispersed teams	√	√	√	√	√	√	√	√
5	acting as PBIJV lead	√	√	√	√	√	√	√	√
	Compliance	**10**	**8**	**9**	**9**	**10**	**10**	**9**	**9**

Discussion of Stage One Interviews

The willing participation and the insight offered by each of the project managers at this stage of the research process was beneficial in progressing the Conceptual Framework even though not all of the project managers were able to fully comply with the screening process operational criteria. This section discusses the other data provided by the project managers during the stage one interview process.

Project Manager personality traits

Each project manager was asked to provide three words to describe their own personality traits. Out of the 22 different responses from the interviewees to this question there was only one exact matching response from three interviewees, namely, being open-minded, as shown in Table 6.9. This indicated the differences between the interviewees, the wide range of personality traits evident within the interviewee group even though all interviewees had fundamentally similar project roles and the fullness of personality traits required to be a project manager in Asia.

Each project manager was also asked to provide three words to describe the most important personal attributes to manage successfully in Asia. The only exact matching response from the interviewees was the need for patience, as shown in Table 6.14. This response was given by six of the eight interviewees. However, the need for flexibility was also evident in three responses (adaptability, being flexible and consensual approach) as was culture in two responses although one referred to tolerance and the other understanding.

Virtually all responses given by the project managers considered to manage successfully *soft* rather than *hard* management attributes were important. The only response given, which could be linked with *hard* management attributes referred to having expertise. Once again, as with the responses recorded in Table 6.13, the wide range of responses given by the interviewee group implied the fullness of personality traits required to successfully

manage in Asia. However, a comparison between the responses in Tables 6.13 and 6.14 indicated a gap between what the interviewees considered personality traits required to successfully project manage in Asia and the perceived personality traits of the interviewees.

Table 6.16: Interviewee project manager personality traits

		Interviewees							
	Main words to describe personality	PMA	PMB	PMC	PMD	PME	PMF	PMG	PMH
1	Ability to work in multi-cultural environment				√				
2	Affable						√		
3	Aggressive		√						
4	Compassionate					√			
5	Confident						√		
6	Curious								√
7	Customer centric			√					
8	Determined					√			
9	Diligent		√						
10	Good communication skills					√			
11	Good sense							√	
12	Honest					√			
13	Laid back								√
14	Leadership			√					
15	Not interested in detail	√							
16	Open to challenges					√			
17	Out-going						√		
18	**Open-minded**	√						√	√
19	Personable		√						
20	Rigour			√					
21	Serious	√							
22	Social							√	

Table 6.17: Most important personal attributes to manage successfully in Asia

	Most important personal attributes to manage successfully in Asia	Interviewees							
		PMA	PMB	PMC	PMD	PME	PMF	PMG	PMH
1	Ability to listen					√			
2	Adaptability		√						
3	Adventurous								√
4	Being flexible						√		
5	Consensual approach				√				
6	Customer respect			√					
7	Diligence		√						
8	Ethical	√							
9	Exemplary professional behaviour							√	
10	Expertise to be respected	√							
11	Mutual respect							√	
12	Negotiation skills			√					
13	Observe local cultures/rules							√	
14	Open to changes				√				
15	**Patience**		√	√	√	√	√		√
16	Structured thought process					√			
17	Tolerant								√
18	Tolerant of other cultures	√							
19	Understanding the local culture						√		

Framework development

The insight offered by each of the project managers as detailed in Tables 6.13 and 6.14 was cross referenced with the key dimensions for project success (Table 7.2) and the key dimensions matrix (Table 7.3) as part of the process to develop the Conceptual Framework. Table 6.15 is a matrix of these findings.

Table 6.15 is the matrix of the components of real management dimensions ("*CORe-MD*"). An analysis of Table 6.15 shows that adaptability, flexibility, patience and being structured are common between the key dimensions

derived from the literature review and the traits and attributes required by project managers in Asia.

Table 6.18: Matrix of Real Key Management Dimensions

	Groups / Dimensions	Key dimensions for project success	Key dimensions matrix	Project Manager personality traits	Most important personal attributes to manage successfully in Asia
		Management Review Sections			
1	Ability to listen				√
2	Ability to work in multi-cultural environment			√	
3	**Adaptability**		√		√
4	**Acceptance-based**	√	√		
5	Affable			√	
6	Aggressive			√	
7	Ambiguous		√		
8	Authoritarian		√		
9	**Awareness**	√	√		
10	Bureaucratic		√		
11	**Clear and understanding**	√	√		
12	**Collaborative**	√	√		
13	Collective		√		
14	Committed	√			
15	Compassionate			√	
16	Competitive		√		
17	Complex		√		
18	Confident			√	
19	**Confucianism**	√	√		
20	Conglomerate-based		√		
21	Consensual approach				√
22	Consistent		√		
23	**Correct initial set-up**	√	√		
24	**Correct systems**	√	√		
25	**Correct training**	√	√		
26	Corrupt		√		
27	Curious			√	
28	Customer centric			√	
29	Customer respect				√
30	Decision-making		√		
31	**Decisive**	√	√		

Table 6.15: Matrix of Real Key Management Dimensions (Continued)

	Groups / Dimensions	Management Review Sections			
		Key dimensions for project success	Key dimensions matrix	Project Manager	Most important Important personal attributes to manage in Asia
32	Determined			√	
33	**Diligent**			√	√
34	Diverse		√		
35	Dominant		√		
36	Dynamic		√		
37	Ethical				√
38	Exemplary professional behaviour				√
39	Expertise to be respected				√
40	Fairness		√		
41	Family-based		√		
42	**Flexible**	√	√		√
43	Good communication skills			√	
44	Good sense			√	
45	*Guanxi*-based	√	√		
46	Hard working		√		
47	**Harmony**	√	√		
48	**Holistic**	√	√		
49	Honest			√	
50	Individualistic		√		
51	Inflexible		√		
52	Informed		√		
53	Laid back			√	
54	Leadership			√	
55	Loyal		√		
56	Mutual respect				√
57	Negotiation skills				√
58	**Non-confrontational**	√	√		
59	Non-quality based		√		
60	Not interested in detail			√	
61	Observe local culture / rules				√
62	**One-teaming**	√	√		
63	Open to challenges			√	
64	Open to changes				√
65	Openness		√		

Table 6.15: Matrix of Real Key Management Dimensions (Continued)

	Groups / Dimensions	Management Review Sections			
		Key dimensions for project success	Key dimensions matrix	Project Manager	Most important personal attributes to manage successfully in Asia
66	Out-going			√	
67	Open-minded			√	
68	Paternal		√		
69	**Patience**		√		√
70	Personable			√	
71	Politically powerful		√		
72	Protective		√		
73	Protectionist		√		
74	**Realistic**	√	√		
75	Realisation		√		
76	**Recruitment savvy**	√	√		
77	Respectful		√		
78	Righteous	√			
79	Rigour			√	
80	Self-restraint		√		
81	Serious			√	
82	**Simple**	√	√		
83	Social			√	
84	Speed-based		√		
85	**Structured**	√	√		√
86	Tolerant of other cultures				√
87	Systems orientated		√		
88	Traditional		√		
89	**Trust-based**	√	√		
90	Understanding the local culture				√
91	Un-structured		√		
92	Virtuous		√		
93	Willing to learn		√		
94	Winning		√		

Table 6.15 shows commonalities within the Conceptual Framework as detailed in Tables 7.2 and 7.3 such as being acceptance-based, awareness, clarity and understanding, collaboration, Confucianism, correct initial set-up,

correct systems, correct training, decisiveness, flexibility, *guanxi*-based, harmony, holistic, non-confrontational, one-teaming, realism, recruitment savvy, simplicity, being structured and trust-based. Moreover, the only commonality between key management dimensions shown in Tables 6.13 and 6.14 as highlighted by Table 6.15 was diligence.

As well as commonalities there were the following divergent dimensions exposed by Table 6.15:

- aggressive v non-confrontational
- authoritarian v. collaborative / collective / consensual
- flexible v. inflexible
- bureaucratic / complex v. simple
- corrupt v. ethical / fair / honest / open / righteous / trust / virtuous
- hardworking v. laid back
- individualistic v. one-teaming
- structured v. not interested in detail / un-structured.

This part of the analysis highlights the ambiguous nature of the project manager ("**PM**") role in Asia. Although it is important to consider context for such opposites, the answer may be within one of the CORe-DMs itself, namely, ambiguity.

As reviewed in Section 6.4.2, the project managers provided insight about their personal traits revealing additional project manager attributes, over and above that found during the literature review, as detailed in Table 6.15, which included having or being the following:

- ability to work in multi-cultural environment;
- affable;
- aggressive;
- compassionate;
- confident;
- curious;
- customer centric;

- good communication skills;

- good sense;

- honest;

- laid back;

- leadership qualities;

- not interested in detail;

- open to challenges;

- out-going;

- open-minded;

- personable;

- rigorous;

- serious; and

- social.

Moreover, further additional insight provided by the project managers about the most important personal attributes to successfully project manage in Asia, over and above that found during the literature review, as detailed in Table 6.15, included having or being the following:

- the ability to listen;

- a consensual approach;

- customer respect;

- ethical;

- exemplary professional behaviour;

- expertise to be respected;

- mutual respect;

- negotiation skills;

- observe local culture / rules;

- open to changes;

- tolerant to other cultures; and

- understanding the local culture.

Table 6.16 is a matrix of the main components of real management dimensions, which includes insight provided by project managers during the stage one interview process.

Table 6.19: Matrix of the Main Components of Real Management Dimensions

| | | CORe-DMs | | |
		Megaproject	PM personal approach	PM PBIJV team mentoring
Management Review Stages	**Key dimensions for project success**	Recruitment savvy Correct initial set-up Trained	Collaborative Awareness Clear & understanding Flexible	Committed Decisive
	Key dimensions matrix	Recruitment savvy Complex Correct Initial set-up Correct systems Structured Conglomerate-based Bureaucratic Correct training *Guanxi-based*	Awareness Collective Collaborative Flexible Holistic Clear & understanding Dynamic Realistic Loyal Non-confrontational Hard working Paternal Respectful Speed-based Trusted-based	Simplicity One-teaming Decisive
	Stage One Interviews – PM personality traits		Multi-cultural ability Affable Aggressive Compassionate Confident Curious Customer centric Communication skills Determined Diligent Good sense Honest Laid back Leadership qualities Not interested in detail Open to challenges Out-going Open-minded Personable Rigorous Serious Social	
	Stage One Interviews – Most important personal attributes to manage successfully in Asia		Ability to listen Consensual approach Customer respect Ethical Exemplary behaviour Expertise for respect Negotiation skills Open to changes Culturally tolerant Understanding of culture	

Data analysis

<u>Introduction</u>

There are several techniques for the analysis of data, however, whatever the choice it is useful to aim to maintain simplicity. Data analysis comprises the examination of raw data, search of data for themes and categories, categorization of the data, tabulation and testing evidence. Qualitative data can be difficult and laborious to analyse and the analysis of case study data is often difficult because the strategies and techniques have not been well defined by past research, however, the data must be handled systematically. Therefore, it is important and helpful that familiar tools and techniques are used (Fellows and Liu: 2008 and Yin: 2009). This section deals with the strategy and techniques used to analyse the data collected from the sources of evidence described thus far in Section 6.4.2.

<u>Computer-assisted tools</u>

Computers rather than people are suited to perform accurate and repetitive manipulations and there are many computer-assisted tools which are capable to summarise and analyse data for both quantitative and qualitative research (Greenfield: 1996).

For quantitative research, Statistical Packages for the Social Sciences (SPSS) and Minitab, are widely used in research centres to summarise and analyse data derived from questionnaires and experiments (Fellows and Lui: 2008). SPSS is a suite of programs covering a wide range of analyses (Greenfield: 1996), which is widely used and close to being industry leader (Bryman: 2008). For qualitative research there is no such industry leader among the different programs (Bryman: 2008) available for computer-assisted qualitative data analysis software ("CAQDAS") such as Atlas/ti, HyperRESEARCH, QSR NUD*IST Vivo (NVivo), The Ethnograph (Yin: 2009) and MAXQDA (Corbin and Strauss: 2008). However, NVivo is now having a big impact in the qualitative research field and was developed out of an earlier program, namely, NUD*IST (Non-numerical Unstructured Data Indexing Searching and Theorizing), which was very popular in the nineties

(Bryman: 2008). NVivo primarily handles non-numerical and unstructured data and the provider of NVivo, QSR International, not surprisingly, extol the virtues of the features and benefits of the latest version, NVivo 10, with its *Microsoft* user interfaces which can handle *Word* documents, PDFs, pictures, database tables, spreadsheets, audio files, videos, social media data and web pages (QSR International: 2013).

Qualitative data is often difficult and laborious to analyse and needs to be handled systematically, which is easier than with quantitative data (Fellows and Lui: 2008). Unlike for quantitative data analysis, in which the use of computer software is both widely accepted, qualitative data analysts have not yet fully embraced CAQDAS. Even though since the eighties CAQDAS has been increasingly over time able to remove many of the clerical tasks associated with the manual coding and retrieving of data, various concerns as well as virtues related with the appropriateness of using CAQDAS are still put forward, as illustrated by Table 6.17 (Bryman: 2008). Yin (2009) argued that CAQDAS will not do the research analysis and the key to the understanding of the value of CAQDAS rests on two words: assisted and tools insofar as CAQDAS may serve as an able research assistant and reliable tool where the researcher is the main analyst. CAQDAS outputs cannot be used as if they were the end of the research analysis because post-computer thinking and analysis is required and thinking is one of things a computer cannot do (Corbin and Strauss: 2008; Yin: 2009). Indeed, nearly all scholars express strong caveats about the use of CAQDAS (Yin: 2009).

Corbin and Strauss (2008) argued that most of the classic qualitative studies were not done using CAQDAS. Although the developer of grounded theory, Anselm Strauss, used computer software to write and sort memos he never used CAQDAS to analysis the research. The research must not become secondary to the CAQDAS program where the focus should be on doing the research not knowing the CAQDAS program (Corbin and Strauss: 2008).

Table 6.20: Virtues and concerns with use of CAQDAS
Source: Bryman: 2008 (adapted)

Virtues	Concerns
Most obviously, CAQDAS can make the coding and retrieval process faster and more efficient.	Some writers are concerned that the ease with which coded text can be quantified, either within qualitative data analysis packages or by importing coded information into quantitative data analysis packages like SPSS, will mean that the temptation to quantify findings will prove irresistible to many researchers. As a result, there is concern that qualitative research will then be colonized by the reliability and validity criteria of quantitative research (Hesse-Biber: 1995).
It has been suggested that new opportunities are offered. For example, Mangabeira (1995) has argued on the basis of her experience with The Ethnograph that her ability to relate her coded text to what are often referred to as 'face-sheet variables' offered new opportunities in the process of analysing her data. Thus, CAQDAS may be helpful in the development of explanations.	It has been suggested that CAQDAS reinforces and even exaggerates the tendency for the code-and-retrieve process that underpins most approaches to qualitative data analysis to result in a fragmentation of the textual materials on which researchers work (Weaver and Atkinson: 1994). As a result the narrative flow of interview transcripts and events recorded may be lost.
It is sometimes suggested that CAQDAS enhances the transparency of the process of conducting qualitative data analysis. It is often noted that the ways in which qualitative data are analysed are unclear in respect of findings (Bryman and Burgess: 1994). CAQDAS may force researchers to be more explicit and reflective about the process of analysis.	It has been suggested that the fragmentation process of coding text into chunks that are then retrieved and put together into groups of related fragments risks de-contextualizing data (Buston: 1997; Fielding and Lee: 1998). Having an awareness of context is crucial to many qualitative researchers, and the prospect of this element being side-lined is not an attractive prospect.
CAQDAS invites the analyst to think about codes that are developed in terms of 'trees' of inter-related ideas. This can be a useful feature, in that it urges the analyst to consider possible connections between codes.	Stanley and Temple (1995) have suggested that most of the coding and retrieval features that someone is likely to need in the course of conducting qualitative data analysis are achievable through powerful word-processing software. They show how this can be accomplished using Word for Windows. The advantage here is that it does not require a lengthy period of getting acquainted with the mechanics of its operations. Also, of course, if someone already has the necessary word-processing software, the possible cost of a CAQDAS program is rendered unnecessary.
Writers like Silverman (1985) have commented on the tendency towards anecdotalism in much qualitative research – that is, the tendency to use quotations from interview transcripts or field notes but with little sense of the prevalence of the phenomenon they are supposed to exemplify.	Coffey *et al* (1994) have argued that the style of qualitative data analysis enshrined in most CAQDAS software is resulting in the emergence of a new orthodoxy. This arises because these programs presume and are predicated on a certain style of analysis, which is inconsistent with the growing flirtation with a variety of representational modes in qualitative research.

As well as the virtues and concerns shown in Table 6.14, Corbin and Strauss (2008) and Yin (2009) also argued for the following:

- Virtues of using computer-assisted programs:
  - ➢ Augments the human mind.
  - ➢ Does the retrieval and layout work while the researcher does the mind work.
  - ➢ Frees up the time of the researcher to be creative, thoughtful and to do a "quality" analysis.
  - ➢ Makes the analysis more consistent with more reliable findings.
  - ➢ Researcher does not have to guess at what was thinking or wrote in memos months ago.
  - ➢ Enhance the ability of the researcher to search for, store, sort, and retrieve materials.
  - ➢ Research process can be made transparent by leaving an audit trail.
  - ➢ Researcher can retrace analytic steps.
- Concerns of using computer-assisted programs:
  - ➢ Researchers can put too much focus on the computer-assisted program and might not think for themselves.
  - ➢ Diverts researcher away from the research process being a researcher-driven thinking and feeling process.
  - ➢ Becomes a substitute for having a general analytical strategy.
  - ➢ Used to direct analytic process rather than a tool to facilitate and not distract from the analytic process.
  - ➢ Used as being integral to the analytic process rather than analytic tool option.

Computer-assisted tools can help quantitative and qualitative research but is by no means essential to the process although they can make calculations quicker and easier, which in itself has pros and cons. For example, as computer-assisted tools become increasingly 'user friendly', the researcher can become far removed from understanding the statistical bases and assumptions applied causing a 'black box' syndrome (Fellows and Lui: 2008).

In a study about dealing with data and using NVivo in the qualitative data analysis process, Welsh (2002) concluded:

"The searching tools in NVivo allow the researcher to interrogate her or his data at a particular level. This can, in turn, improve the rigour of the analysis process by validating (or not) some of the researcher's own impressions of the data. However, the software is less useful in terms of addressing issues of validity and reliability in the thematic ideas that emerge during the data analysis process and this is due to the fluid and creative way in which these themes emerge. Of course, details can be checked on the content of particular nodes and this could affect the inter-relationships of the thematic ideas, but in terms of searching through the thematic ideas themselves in order to gain a deep understanding of the data, NVivo is less useful simply because of the type of searching it is capable of doing. It is important that researchers recognise the value of both manual and electronic tools in qualitative data analysis and management and do not reify one over the other but instead remain open to, and make use of, the advantages of each."

Although the likes of Anselm Strauss did not use CAQDAS for research analysis and the use of CAQDAS is debatable and outright rejected by some researchers, CAQDAS has improved over the years and continues to improve. However, CAQDAS remains as a supporting role and should not direct the researcher in the research process (Corbin and Strauss: 2008; Yin: 2009).

For quantitative data analysis, as referenced in Section 6.4.1, when the volume of data is manageable a manual method of data analysis can be chosen (Miles and Huberman: 1994, Seale: 2010, Spencer *et al*: 2003 and Yin: 2009). Therefore, for the quantitative parts of this research the volume of data was expected to be manageable and as such a manual method of data analysis was chosen in preference to using the SPSS tool, although *Microsoft Word* software was used for data collection. For qualitative parts of

this research, in particular the data analyses of the literature review and case studies, a manual method of data analysis was also chosen. Even though this chosen method was expected to be a laborious approach it was considered a worthwhile time investment to become fully appreciative of and familiar with the research data and the tacit meanings within the data by constant review cycles of the data throughout the research process. Moreover, this time investment was also important because the awareness of data context during the case studies was critical. Similar to the quantitative data collection, *Microsoft Word* and *Excel* software was used for the qualitative data collection.

Analytical strategy

Yin (2009: 127) highlighted that "the analysis of case study evidence is one of the least developed and most difficult aspects of doing case studies". However, it is also a challenging and exciting stage of the research process and requires a mix of creativity and systematic searching (Spencer *et al*: 2003). According to Yin (2009), the best preparation for conducting case study analysis is to have a general analytic strategy without which case study analysis will proceed with difficulty. The following four general analytic strategies were presented by Yin (2009):

- **relying on theoretical propositions** – following the theoretical propositions that led to the case study;
- **developing a case description** - developing a descriptive framework for organizing the case studies;
- **using both qualitative and quantitative data** – where substantial amounts of quantitative data are subjected to statistical analyses; and
- **examining rival explanations** – trying to define and test rival explanations.

The general analytic strategy adopted for this research is the case description strategy. This is because a Conceptual Framework was proposed based upon the extensive literature review and the case studies explored

how to develop the Conceptual Framework based upon multiple-case study interviews, observations and documentation.

<u>Analytic techniques</u>

Yin (2009) described the following five analytic techniques and highlighted that none should be considered as easy to use:

- **Pattern matching** – compares an empirically based pattern with a predicted one (or with several alternative predictions);
- **Explanation building** – analyses the case study data by building an explanation about the case;
- **Time-series analysis** – analysis of a pattern comprising of a single dependant or independent variable for a simple time series or a multiple set of variables for complex time series;
- **Logic models** – matching empirically observed events to theoretically predicted events; and
- **Cross-case synthesis** – aggregating findings across a series of individual studies.

All these analytic techniques, with the exception of cross-case synthesis, can be applied to the analysis of both single and multiple-case studies. This research adopted the cross-case synthesis analytic technique and the data, collected and observed, is presented using a thematic framework (Ritchie and Spencer: 2002), which is discussed in Section 6.4. The details of the analysis of individual cases are discussed in Chapter Eight and cross-case analysis in Chapter Nine of the thesis.

The following process of the cross-case synthesis technique, which relied strongly on argumentative interpretation (Yin: 2009), was complied with to analyse the sources of evidence.

- Each individual case was treated as a separate study during the data collection process.
- The FTF interviews were transcribed verbatim.

- To make any meaning out the data, they were sorted into emerging themes through the creation of word tables that displayed the data from the individual cases according to a uniform framework.

- Within-case and cross-case assessments of the descriptions provided by interviewees about how they managed East-West multicultural teams on construction megaprojects in Asia were then done.

Coding, emerging themes and dominant themes

The research design adopted the multiple-case study approach to enable the utilization of a holistic approach in the pursuit of determining the factors that were necessary to further develop the Conceptual Framework for Western PBIJV project managers to better manage East-West multicultural teams on construction megaprojects in Asia. Due to the vast amount of data available for collection from such a research design and the adopted sources of evidence, the process of coding was used to break down the data collected. As stressed by Corbin and Strauss (2008: 66), coding involves "interacting with data (analysis) using techniques such as asking questions about the data, making comparisons between data, and so on, and deriving concepts to stand for those data, then developing those concepts in terms of their properties and dimensions".

The volume of research data collected was condensed through the process of coding. In parallel, the activity of finding emerging themes was done based upon a coding scheme developed for the study. The coding process commenced by generating a list of codes, which were drawn from the literature review prior to the fieldwork. Since the focus of the research was to demonstrate how PBIJV project managers could better manage East-West multicultural teams on construction megaprojects in Asia, the transcripts of each case were thoroughly examined and were coded. The themes were then viewed and arranged based on how project managers managed their projects. The development of the coding scheme was an iterative process, throughout the study of all the transcripts for each of the three cases.

Data analysis phase

Introduction

Eisenhardt (1989) described the process of analysing data is the heart of building theory from case studies and emphasized that this part of the research process was the most difficult and the least codified part of the process often resulting in the separation of data from conclusions. Despite such difficulties, the two key features of data analysis, which can be identified, are within-case data analysis and cross-case data analysis.

Within-case data analysis

Within-case analysis was conducted in the research process by examining each of the three case studies individually. Mintzberg and McHugh (1985) and Eisenhardt (1989) have highlighted the importance of carrying out within-case study analysis because it positively assists researchers to handle the potentially voluminous amounts of data during the early research analysis process, where death by data asphyxiation must be avoided (Pettigrew: 1988). Gersick (1988) outlined that although there is no standard format for within-case analysis, it is simply a descriptive narrative of a case study, which is detailed in nature, it should be central in generating deeper insight into the research problem.

Cross-case data analysis

Cross-case data analysis was considered appropriate as part of the design for this research to investigate similarities of work practices employed by the Western project managers in the search for project management success factors in the form of patterns and emergent themes (Eisenhardt: 1989, Miles and Huberman: 1994, Rowlands: 2005 and Yin: 2009). For example, in comparing two or more sources of data, Dick (1997) suggested that attention is given to topics, which are mentioned more than once.

Eisenhardt (1989) suggested the following three tactics to conduct cross-case data analysis.

- select categories or dimensions, and then to look for within-group similarities coupled with intergroup discussions.

- select pairs of cases and then to list the similarities and differences between each pair. This tactic forces researchers to look for the subtle similarities and differences between cases, which could lead to a more sophisticated understanding.

- Divide the data by data source to exploit the unique insights possible from different types of data collection.

In addition to these techniques, Rowlands (2005) highlighted that the most basic method of cross-analysing data is via an unordered descriptive meta-matrix. In this method, data is assembled from several case studies in a structured way and includes all relevant information, which tabulates the frequency of events in an attempt to highlight the dominant issues at play whilst protecting against any bias. In a similar way, Yin (2009) suggested that cross-case synthesis can start with the creation of word tables displaying data from each case study according to a standard structured layout.

The cross-case data analysis technique adopted for this research is based upon a combination of cross-case data analysis techniques presented by Eisenhardt (1989) and Yin (2009). At the beginning of this post literature stage of the research process, codes related with how Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia were selected from the existing literature.

6.5   FRAMEWORK VALIDATION

6.5.1 Introduction

Validation is a challenge to all researchers, but especially for those working in interdisciplinary fields such as construction engineering and management. Such validation is a fundamental element of the process of scholarly endeavour and it is essential that researchers ensure the quality of their work at each stage of the research process, including data collection, analysis and

interpretation of findings adheres to the highest standards of quality through appropriate validation techniques. This level of quality is measured as validity. It is important to highlight that validation is more than verification. In contrast to verification, validation is concerned with 'doing the right things', whereas verification is concerned with 'doing things right' (Lucko and Rojas: 2010). Moreover, according to Lincoln and Guba (1985), validation improves the credibility of research findings, especially when the research has been conducted from an outsider perspective.

The process of validation can be broadly divided into two main areas: establishing internal and external validity. In addition to internal and external validity, other types of validity that are commonly referred to in literature include face validity, content validity and construct validity (Lucko and Rojas: 2010). To best ensure this research achieved the required level of quality, the research design was subjected to face validity, content validity, construct validity, internal and external validation and respondent (member) validation as well as reliability of findings. Moreover, expert interviews can be used as an expert validation of findings (Flick: 1998). The Final Framework was validated through review and discussion with three of the originally short-listed project managers who were all considered to be experts of this particular field of research.

Section 6.5.2 presents the validation of this research in its totality, which results in the validation of the Final Framework. This section also presents the four widely used tests for case study validation, as previously listed in Figure 6.9, as well as face validity and content validity.

6.5.2 Framework Validation

Introduction

The research process is described in Section 6.3 and illustrated in Figure 6.5. The first two stages of the research process, namely the exploratory interviews and multiple-case study is detailed in Section 6.4. The third and final stage of the research process involves the validation of the Intermediate

Framework developed from the multiple-case study conducted during the second stage of the research process. The Final Framework comprises of the factors that influenced the ways the selected Western PBIJV project managers managed East-West multicultural teams on construction megaprojects in Asia.

Internal validity

According to Cresswell (2007: 158), internal validity assesses "the accuracy of the information, whether it matches reality". Whereas, Leedy and Ormrod (2009) described internal validity as being related to the concept of causality and its preoccupation with the derivability of relations within data. However, Lucko and Rojas (2010) argued that establishing causality is a significant challenge for construction researchers, given that many studies are performed in real-life settings where multiple variables interact with one another, many of them uncontrollable or unpredictable and furthered argued that true causality cannot be established in observational studies.

For this research, internal validation was achieved via post-case study analysis questionnaires with three selected construction industry-related management professionals with extensive working experience in Asia with a view to confirming the accuracy of the information.

External validity

External validity is about knowing whether a study's findings are generalizable beyond the immediate case study (Yin: 2009) and is related to the concept of induction where the focus on the generalizability of results is for prediction purposes (Leedy and Ormrod: 2009).

In order to generalise from a sample, the sample must be representative of the population and one of the most common ways to achieve this is through randomisation of the sampling procedure to establish external validity e.g. Ozorovskaja *et al* (2007). Other techniques can also be adopted to support generalizability such as stratification by dividing the population into groups for

representation in the sample, e.g. Davis and Songer (2003). However, conscious sampling alone is not sufficient for external validity, because the size of the sample also determines whether the inherent variability within the population has been captured sufficiently. External validity can be also be threatened by a lack of statistical rigour in the collection of data, the presence of any special circumstances during the research efforts and over simplification of the phenomena under study (Lucko and Rojas: 2010).

For this research, external validation was obtained via the information provided at the exploratory interviews with Western project managers with years of experience working on construction megaprojects in Asia by PBIJVs and cross-case analysis. Case Study One, Two and Three were similar in terms of being high profile construction megaprojects with varying degrees of local and national government involvement, constantly under public scrutiny not least due to environmental sensitivities, and having extensive contract durations with associated big financial risks. However, each PBIJV was run differently.

The cross-case analysis was conducted through the comparison of themes which emerged from each case study. The cross-case analysis process began with the collection of all of the research data collected from the applicable FTF interviews, which were transcribed and coded for further analysis. The coding process realized five dominant themes, which described how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects have been developed in each of the three cases. Each emerging dominant theme category from each case study was constantly cross referenced with the other two case studies throughout the cross-case analysis process to identify similarities and differences. Validity was considered as achieved when similar dominant theme categories were found among these case studies.

The case generalization is achieved when similar results were found in terms of how each project manager managed their particular project as developed

from the multiple-case studies. The results from Case Study One were compared with the other two cases, which had different characteristics. Dominant themes emerged from the cross-case analysis; as such the themes were self-validated hence, validating the results as a whole. For example, the themes 'Asian variables' and 'dispersed people' appeared in each case, hence these themes became very significant in this study and these findings are validated when compared between the cases.

Face validity

Face validity is a subjective judgment of a non-statistical nature that seeks the opinion of non-researchers regarding the validity of a particular study (Leedy and Ormrod: 2009), and requires the 'approval' of non-researchers, such as construction personnel on site, regarding the validity of a study. In the construction management field of study, the collaboration with appropriate representatives from the private and public sectors, and also the public at large, is very important to secure face validity. However, arguably the strongest way to establish face validity is the involvement of domain experts, before, during, after, or even throughout the research. Such participation can range from advisory capacity to active collaboration and the earlier such input is sought, the stronger its contribution to face validity, e.g. Gibson *et al* (1995) (Lucko and Rojas: 2010).

Techniques useful to establish face validity include interviews, e.g. El-Diraby and O'Connor (2004) and focus groups, e.g. Yu *et al* (2006). Firstly, interviews with structured questions provide internal reliability and, as highlighted in Section 6.4, interviews can achieve deep insights because an interviewer can clarify and extend individual items *ad hoc* in a semi-structured manner. However, it is important to stress that an audio recording or detailed interview notes should be taken during or directly after the interview. Secondly, focus group, which is a more extensive technique than interviews, involving the interaction and self-disclosure among participants can lead to a consensus among experts. However, it is important to stress

focus groups need to be carefully moderated to avoid tangential conversations (Lucko and Rojas: 2010).

Construction research often creates face validity through case studies. However, the challenge of striking a balance between realism and abstraction as well as between inclusiveness and manageability becomes a matter of parsimony, through the application of Occam's razor, namely the principle of being 'as simple as possible (but as complicated as necessary)', e.g. Karam *et al* (2007) and Rojas and Dossick (2008) (Lucko and Rojas: 2010).

For this research, face validity was obtained by having three of the originally interviewed project managers analyse the Final Framework and by providing comments.

Content validity

Content validity is a non-statistical approach that focuses on determining if the content of a study fairly represents reality. According to Babbie (1990: 134), the primary concern of content validity is "the degree to which a measure covers the range of meanings included within the concept". The collection of data from a population has a fundamental influence on the quality of the subsequent analysis and interpretation. During this phase of the research process, researchers are usually not able to measure the full spectrum of all possible observations, i.e. the entire population. Instead, data is collected from a sample that is *representative* of the characteristics of the population. When such sampling is performed consciously as to which data are collected and how, it can establish significant content validity, e.g. for survey research (Lucko and Rojas: 2010).

For this research, content validity was achieved through the exploratory interviews with the Western project managers who were representative of the population under study.

Construct validity

According to Yin (2009), construct validity refers to identifying correct operational measures for the concepts being studied. Similarly, Leedy and Ormrod (2009) considered that construct validity is concerned with ensuring a research effort is measuring what it is supposed to measure all in accordance with its stated research objectives.

One way to accomplish construct validity is through the performance of a pilot test, by fine-tuning the instrument before its use in the actual data collection, e.g. Col Debella and Ries: 2006 and Ling: 2002. Although, no numeric measures exist to capture the improvement gained from these examples it is argued that the effect is similar to involving domain experts during the course of the research (Lucko and Rojas: 2010).

Other ways available to test construct validity when doing case studies, as detailed in Figure 6.8, is to establish a chain of evidence (refer to Figure 6.11) and to have key informants review a draft of the case study report, which in this research is the Intermediate Framework, and providing respondent validation (Bryman: 2008). Respondent validation is all about getting respondents to validate the interpretation of findings, as stated by Lincoln and Guba (1985: 301), "member checking (respondent validation) to assess intentionality, to correct factual errors, to offer the respondents the opportunity to add further information or to put information on record; to provide summaries and to check the adequacy of the analysis".

As explained in Chapter One, the main focus of the research is to propose a framework about how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia. In accordance with the case study tactic presented by Yin (2009), the construct validity was obtained by having the respondents review the Final Framework about how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia and provide comments.

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┌─────────────────────────────────────────┐
│              Case Study Report            │
└─────────────────────────────────────────┘
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│             Case Study Database           │
└─────────────────────────────────────────┘
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┌─────────────────────────────────────────┐
│     Citations to Specific Evidentiary     │
│     Sources in the Case Study Database    │
└─────────────────────────────────────────┘
                     ↕
┌─────────────────────────────────────────┐
│    Case Study Protocol (linking questions │
│           to protocol topics)             │
└─────────────────────────────────────────┘
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┌─────────────────────────────────────────┐
│            Case Study Questions           │
└─────────────────────────────────────────┘
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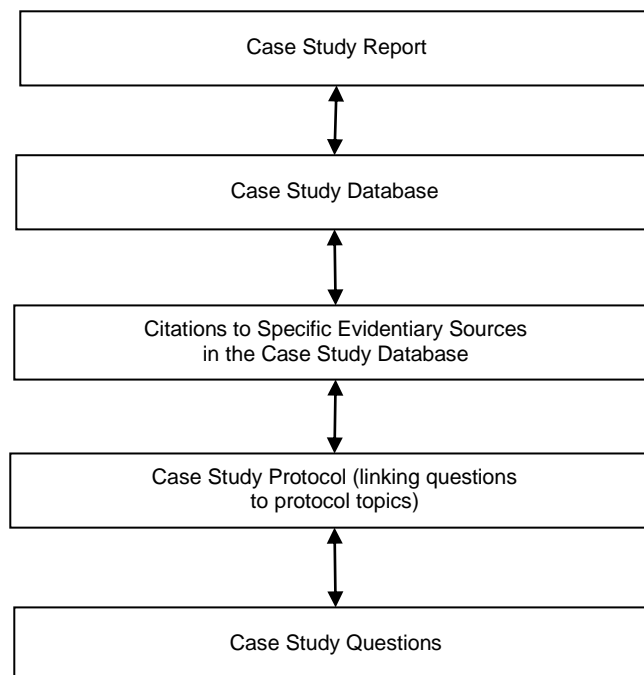
Figure 6.17: Maintaining a chain of evidence
Source: Yin (2009)

Reliability

Validity is sometimes confused with reliability. As with validity, there are different kinds of reliability, including inter-rater reliability, internal reliability, test-retest reliability, and parallel forms reliability. In research, reliability is about the consistency and repeatability of research measurement, or the degree which an instrument measures the same way each time it is used under the same condition with the same subjects. For example, to ensure that research data collection procedures can be repeated with the same results. Such reliability is important so that in the event a researcher wants to investigate another researcher's case study they should be able to attain the same findings and conclusion if they follow the same research design and methodology. Therefore, the aim of reliability in research is to minimize errors and biases in a study. Moreover, to enable another investigator to repeat an earlier case study it is necessary to document the procedures that were followed (Lucko and Rojas: 2010 and Yin: 2009).

Reliability was achieved in this research through the case study tactic of using a case study protocol (Yin: 2009). Figure 6.12 gives a table of contents of the protocol for each individual case study as part of the research method.

CASE STUDY PROTOCOL

A. Introduction to the Case Study and Purpose of Protocol
    1.   Case study questions, research aim and objectives
    2.   Theoretical framework for the case study
    3.   Role of protocol in guiding the case study investigator

B. Data Collection Procedures
    1.   Names of PM locations to be visited, including contact persons
    2.   Data collection plan
    3.   Expected preparation prior to data collection visits

C. Outline of Case Study Report
    1.   PM practices and insights
    2.   Outcomes of practices and insights
    3.   Project context and history pertaining to PM practices and insights
    4.   Dominant theme category and sub-category development:
        a.   Record PM questionnaire responses and PM views and insights at interview
        b.   framework for practices and insights
        c.   presenting outcome of data analysis
        d.   list of PMs interviewed

D. Case Study Questions

Figure 6.18: Table of contents of protocol for conducting case study

6.5.3 <u>Triangulation</u>

Definition

Denzin and Lincoln (1998) defined triangulation as the use of multiple methods in the study of the same object. Miles and Huberman (1994: 267)

argued that "triangulation is a way to get to the findings in the first place – by seeing or hearing multiple instances of it from different sources by using different methods and by squaring the findings with others it needs to be squared with".

Types of triangulation

Miles and Huberman (1994) identified five forms of triangulation; data source, method, researcher, theory and data type. However, according to Denzin (1989) and Patton (2002), there are basically the following four types of triangulation for evaluation purposes:

- *data triangulation*, by using different data sources (not methods of generating data);
- *investigator triangulation*, by employing multiple observers for the same phenomenon;
- *theory triangulation*, by approaching empirical materials from various perspectives, theoretical framework and interpretations; and
- *methodological triangulation*. There exists two forms of method triangulation:
  1. *"Within"* method triangulation is employed by choosing one method and employing different strategies to examine data; and
  2. *"Between"* method triangulation is on the other hand used when combining dissimilar methods to investigate a set of data.

Jick (1979) noted that within method triangulation seeks to enhance internal validity and reliability whereas between method triangulation seeks to enhance a study's external validity.

Relevance and justification of triangulation

Kelle (2001) argued that qualitatively-oriented social scientists have often used the notion of triangulation to argue in favour of an integration of qualitative and quantitative methods e.g. Denzin (1978), Fielding and Fielding (1986), Flick (1992) and Flick (1998). According to Campbell and Fiske (1959: 81), "validation is typically convergent, a confirmation by independent

measurement procedures". Kelle (2001) highlighted that Webb *et al* (1966) followed on from this idea and transferred it to a broader methodological framework and argued for the collection of data from different sources and their analysis with different strategies would improve the validity of results. Kelle (2001) further highlighted that Denzin (1978) used the argument of Webb *et al* (1966) that a hypothesis which had survived a series of tests with different methods could be regarded as more valid than a hypothesis tested only with the help of a single method. Fielding and Fielding (1986), argued that the use of a multi-method research technique, such as triangulation, is a useful technique when used carefully and purposely in order to add breadth and depth to the research, but such a technique is not for the purpose of pursuing the objective truth.

Fielding and Fielding (1986) also highlighted that the combination of research methods may add breadth or depth to an analysis, but not necessarily lead to more valid results. The idea that research results produced with different instruments can be used for mutual validation has also been criticised, e.g. Fielding and Fielding (1986), Flick (1992) and Flick (1998). Indeed, they argued that using several different methods can actually increase the chance of error and although there may be strong correlations between the results of tests, these may occur because the tests are biased in a similar way. Therefore, any convergence between two research results could be because test results are either *right* or that they are *wrong* in the same way.

Flint and Mentzer (1998) considered the argument for a more interpretative approach is that theory triangulation does not necessarily reduce bias, nor does methodological triangulation increase validity but argued that when different paradigms and traditions are combined, the picture might be 'fuller' although not more objective. Jick (1979) is considered to represent a more pragmatic approach to the rationale of triangulation and argued that triangulation will help to capture a more complete, holistic, and contextual portrayal of the unit(s) under study, as such Flick (1998: 230) argued that triangulation "increases scope, depth and consistency in methodological

proceedings". However, it is stressed that the use of such a multi-method research technique does indeed require a great deal of care by the researcher.

The decision to adopt the use of triangulation for this research is related to validity (Altheide and Johnson: 1994 and Yin: 2009) and because in the social sciences, validation is conventionally equated with a replication that is called triangulation, where the investigator uses different methods to produce the same findings (Bloor: 1983). The types of triangulation used in this research are presented in the next part of this section.

Types of triangulation used in the research

The triangulation of data is achieved when evidence has been corroborated by more than one source of evidence (Yin: 2009). Triangulation was achieved in this research by using multiple sources of data in interviews and observations, which improved the construct validity of the research (Yin: 2009). Figure 6.13 distinguishes between the triangulation of data (convergence of evidence) and when there are multiple sources addressing different facts (non-convergence of evidence).

In this research, two types of triangulation technique were adopted:

1. the first one is data triangulation as data was collected from project managers of construction megaprojects in Asia. This data triangulation has been done in Thailand and Korea.
2. the second triangulation technique that has been used is method triangulation. Different research methods were used and combined to obtain a fuller picture of the research.

The types and elements of triangulation used in this research are summarized in Table 6.18.

Convergence of Evidence
(single study)

Documents   Archival Records   Open-ended
Interviews

Fact

Observations   Structured   Focus
(direct and   interviews and   Interviews
participant)   surveys

Non-convergence of Evidence
(separate substudies)

Site visits ⟶ Findings ⟶ Conclusions

Survey ⟶ Findings ⟶ Conclusions

Document analysis ⟶ Findings ⟶ Conclusions
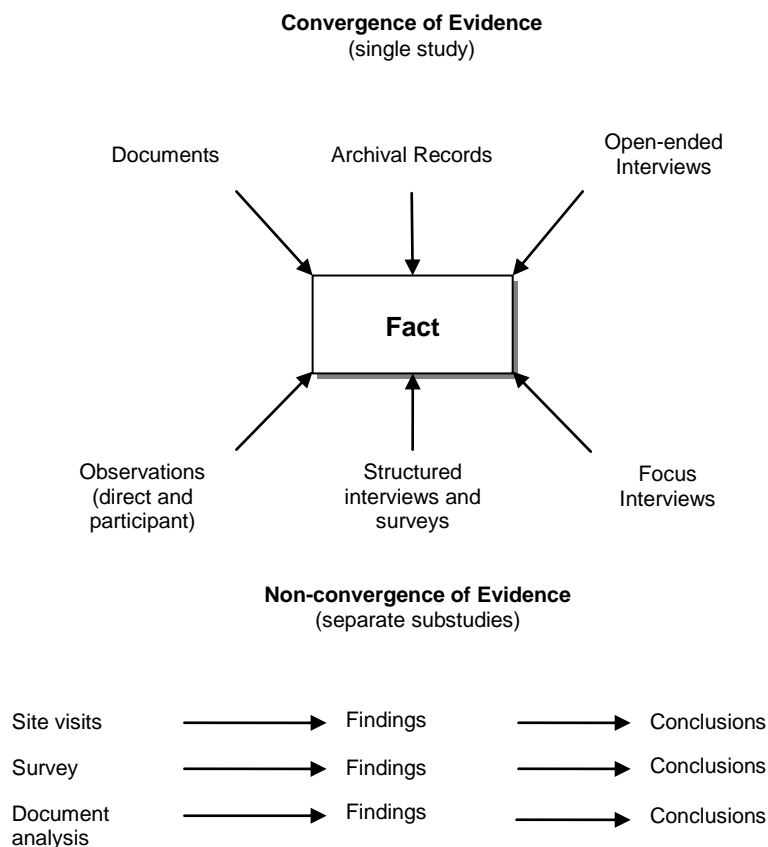
Figure 6.19: Convergence and non-convergence of multiple sources of evidence

Source: Yin (2009)

Table 6.21: Types and elements of triangulation in this research

Type of triangulation	Elements of triangulation
Methodological	• questionnaires • semi-structured interviews • simple and unobtrusive observations • documentation
Data	• peer review

The robustness in the choice of data sources used in this research was achieved in two ways. Methodologically, more than one data source was

used. Interviews, as the main source of evidence, were used to gain a deep insight into project management issues, in particular, project manager *soft* management issues as these were less likely to be recorded in the project documentation nor were they likely to be fully observable due to political, cultural and PBIJV sensitivities. The interviews were supplemented by simple and unobtrusive observation and documentation. The collection of data focused on the project management practices preferred by the Western PBIJV project managers to achieve project success on construction megaprojects in Asia.

6.6   SUMMARY

This chapter discussed the philosophical underpinning of the research and the choices made in research design and methodology. Available strategies, designs and methodologies were highlighted to clarify the reasons for a particular selection in the research design and methodology. The data collected and the methods of analysis were also discussed.

Philosophically, at the ontological level this research adopted a realist position because the number of ways Western project managers work on construction megaprojects in Asia can vary considerably, and at the epistemological level adopted the interpretivist position because the nature of the research problem is focused on how Western PBIJV project managers can better manage East-West multicultural teams on construction megaprojects in Asia.

This research followed a qualitative strategy for the research design and methodology and is exploratory in nature with the aim to establish an effective construction megaproject management framework. The research design firstly adopted a case study approach then chose a multiple-case study version of this approach because of the high exploratory and contextual nature of the research and adopted a multiple-case holistic design

approach because evidence from multiple cases is often considered more compelling, and the overall study is therefore more robust.

This research followed an exploratory semi-structured FTF interview approach. These interviews were conducted for two separate purposes. The first stage of the research process involved screening interviews of the short-listed project managers, which comprised of questionnaires and semi-structured interviews with an interview guide. The case study screening process used operational criteria as part of the process to select cases. The interviews were transcribed verbatim and analysed using a thematic framework. Interview details are presented in Chapter Six. Three cases were selected from this process. An analysis of stage one interview responses showed:

- The matrix of real key management dimensions, Table 6.15, compared the literature review analysis categories and groups with the stage one interview responses, which resulted in 94 groups.
- An analysis of Table 6.15 of groups with multiple responses was done to enhance the list of emerging dominant groups and presented as the matrix of the main components of real management dimensions, Table 6.16.

The second stage of the research process studied three cases and comprised of the second stage questionnaires and interviews, direct observations and documentation as the main methods of data collection, where interviews with project managers provided both secondary data and further data, particularly those sources associated with *soft* project management issues. Direct observations were over a lengthy period and an additional longitudinal element was injected into the research by analysing archival information. The semi-structured FTF type of interview was chosen as a key method for data collection and was supported with the aid of an interview guide. The unit of analysis is a critical factor in case studies and the unit for analysis in this research is the project manager and a holistic unit of analysis rather than embedded was adopted.

In terms of the research process, the general analytic strategy adopted was the case description approach because a conceptual framework consisting of codes had been developed based upon the extensive literature review. The chosen analytic technique was cross-case synthesis and the data, collected and observed, is presented using a thematic framework.

At the beginning of this post literature stage of the research process, a coding system was devised, based upon the literature review, to represent key dimensions related with how Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia. A manual data analysis method was adopted in preference to using CAQDAS. Thereafter, emerging themes were found from the first two stages of the research process and presented as an Intermediate Framework. A thematic framework was used to analyse the data for each within-case and for cross-case analysis. As such, the Conceptual Framework was developed firstly into a Primary Framework based upon the screening process data and then into an Intermediate Framework based upon the within-case and cross-case analysis of the three cases. Once again, a manual data analysis method was adopted in preference to using CAQDAS. Chapter Eight presents the Primary Framework and describes the three case study projects and the findings. Details of the cross-case analysis are presented in Chapter Nine and Chapter Ten presents the Intermediate Framework.

The third and final stage of the research process involves the validation of the Intermediate Framework developed from the multiple-case study conducted during the second stage of the research process. For this research, internal validation was achieved via post-case study validation questionnaire responses by three selected construction industry-related management professionals with extensive working experience in Asia. External validation was obtained via the information provided during the stage one screening with Western project managers with years of experience working on construction megaprojects in Asia by PBIJVs and cross-case analysis. Face validity was obtained by having three of the originally

interviewed project managers analyse the Intermediate Framework and providing comments. Content validity was achieved through the exploratory interviews with the Western project managers who were representative of the population under study. Construct validity was obtained by having the respondents review the Intermediate Framework and provide comments. Reliability was achieved through the case study tactic of using a case study protocol and triangulation was achieved by using multiple sources of data in questionnaire responses, interviews and observations, which also improved the construct validity of the research. The Final Framework was developed based upon comments provided during the validation process. Details of the Intermediate Framework, the validation and Final Framework are presented in Chapter Ten.

In this chapter the theoretical and philosophical assumptions underlying the research methodology were reviewed. In addition, a discussion of the research design for this research was presented. A basic summary of this chapter is presented in Table 6.19.

Table 6.22: Summary of research design and methodology

Level of decision	Choice
Ontological assumption	Realist
Epistemological assumption	Interpretive
Methodology/research strategy	Qualitative with multiple-case studies
Research techniques	Semi-structured FTF interviews

CHAPTER SEVEN – CONCEPTUAL FRAMEWORK

7.1   INTRODUCTION

The introductory chapter introduced the research and provided an overview of the justification for the research, aim and objectives, research process and the basic structure of the thesis. Chapter Two through Five reported the findings of an extensive literature review of construction, Asia, TQM and PBIJVs with a clear focus to answer the research questions of how should a PBIJV approach a complex construction megaproject in Asia and how can Western expatriate project managers best manage and lead the project management of their particular megaproject from inception to completion and enable the best chance for overall project success. Chapter Six established the research methodology regarding the project management of PBIJVs on complex construction megaprojects in Asia and details of the research approach and every stage of the research process and also presented the findings from the exploratory semi-structured interviews with Western project managers with actual working experience on construction megaprojects at the fore of PBIJVs in Asia were presented. Chapter Six also presented the justification for the selection of the three case study participants.

The objective of this chapter is to establish a Conceptual Framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams and to further analyse the key dimensions for project success in construction, as identified in Chapters Two through to Five, to further develop the Framework.

This chapter presents results, analysis and discussion of findings of the first stage of the research process, post literature review, as discussed in Section 6.3. Firstly, this chapter presents the Conceptual Framework. Secondly,

interview data, analyses and discussion of key factors influencing the management practices of Western project managers in Asia are discussed. The findings of the case studies are presented in Chapters Eight and Nine.

7.2   CONCEPTUAL FRAMEWORK

7.2.1 Introduction

This section establishes a Conceptual Framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, which is based upon the key dimension matrices for project success in construction as identified in Chapters Two through to Five.

7.2.2 Conceptual Framework

At the beginning of this post literature stage of the research process an analysis of the key dimensions of the literature review of construction, Asia, TQM and PBIJVs (Chapters Two to Five) in the context of megaproject success was done. This literature review is initially presented in the form of the Conceptual Framework comprising of four high level categories based upon the literature review chapter headings and groups/dimensions derived from an analysis of the literature review content. Table 7.1 details the Conceptual Framework as derived from this initial part of this literature review analysis. Whereas, Figure 7.1 pictorially depicts the dependency and unity between the key dimension categories.

Thereafter, the following analysis of categories and groups/dimensions in the Conceptual Framework was done:

- The key dimensions matrix for project success listed six categories and 22 groups. Refer to Table 7.2
- The key dimensions matrix for project management in Asia listed 11 categories and 59 groups. Refer to Table 7.3.

- The key dimensions comparison matrix listed 28 groups, which appeared more than once, to establish the emerging dominant groups. Refer to Table 7.4.

Table 7.1: Conceptual Framework

CONSTRUCTION INDUSTRY

Acceptance, Adaptive, Awareness, Clarity, Collaborative, Committed, Decisive, Dynamic, Flexible, Holistic, Inflexible, Recruitment savvy, Righteousness, Simple, Structured, Systems orientated, Trained, Understanding

THE ASIAN WAY

Ambiguous, Authoritarian, Aware, Bureaucratic, Collective, Competitive, Complex, Confucianism-based, Conglomerate-based, Consistent, Corrupt, Decisive, Diverse, Dominant, Dynamic, Family-based, Flexible, *Guanxi*-based, Hard-working, Harmonious, Holistic, Individualistic, Inflexible, Informed, Loyal, Non-confrontational, Not quality focused, Paternal, Patient, Politically powerful, Protective, Protectionist, Respectful, Self-restraint, Simple, Speed-based, Structured, Traditional, Trust-based, Unstructured, Virtuous, Willing to learn, Winning

TQM

Awareness, Clarity, Collaboration, Collective, Complex, Correct initial set-up, Correct recruitment, Correct systems, Correct training, Decision-making, Dynamic, Flexibility, Hard work, Holistic, One-teaming, Openness, Realistic, Simplicity

MANAGEMENT

Awareness, Clarity, Collaboration, Collective, Correct initial set-up, Correct recruitment, Correct systems, Correct training, Fairness, Flexible, Holistic, One-teaming, Realistic, Realization, Understanding

Figure 7.1: Conceptual Dependency Jigsaw

Tables 7.2 and 7.3 summarise the literature review analysis of the literature review matrices.

These matrices were explored to develop a system of coding the data, as discussed by Fellows and Liu (2008) and Corbin and Strauss (2008), to produce the Conceptual Framework, which comprises of categories and groups/dimensions within categories related with how Western PBIJV project managers can manage East-West multicultural teams on construction megaprojects in Asia. Appendices A.18 to A.21 shows the group allocation to each initial key dimension.

Table 7.2: Key Dimensions Matrix for project success

Groups / Dimensions		Literature Review Categories					
		Construction Industry	Organizations, Management & Leadership	Environment	Asia	JVs	Information, Communication & Coordination
Key dimensions required for project success	Acceptance-based				√		
	Awareness		√	√	√	√	√
	Clear and understanding	√	√			√	√
	Collaborative	√	√	√	√	√	√
	Committed	√		√			
	Confucianism				√		
	Correct initial set-up					√	√
	Correct systems						√
	Decisive		√		√		
	Flexible		√			√	√
	Guanxi-based				√		
	Harmony				√		
	Holistic						√
	Non-confrontational				√		
	One-teaming					√	
	Realistic					√	
	Recruitment savvy	√		√		√	√
	Righteous	√					
	Simple	√					
	Structured	√					
	Trained		√		√		
	Trust				√		

As referenced in Section 6.4.2, Dick (1997) suggested that attention should be given to topics mentioned more than once. Therefore, to streamline the number of groups, this multiple-hit principle shall be maintained to establish the emerging dominant groups. An analysis of Table 7.2 shows, in order of popularity with a maximum possible score of six, that the following key dimension groups achieved a multiple-hit status:

6   collaborative

5   awareness

4   clear and understanding, recruitment savvy

3   flexible

2   committed, correct initial set-up, decisive, trained

Table 7.3: Key Dimensions Matrix

Groups / Dimensions	Organizations, Management & Leadership	Environment	Asian Way	Korean Way	Thai Way	Asian Culture	OC Way	QM & TQM	JVs	Multi-national Teams	Information, Communication & Coordination
Accepting	√										
Adaptive	√										
Ambiguous							√				
Authoritarian				√							
Awareness	√	√					√	√	√	√	√
Bureaucratic				√			√				
Clear & understanding		√						√	√	√	√
Collaborative	√	√					√	√	√	√	√
Collective			√	√		√	√		√	√	√
Competitive				√							
Complex			√	√		√		√			
Confucianism-based				√							
Conglomerate-based			√	√			√				
Consistent							√				
Correct initial set-up								√	√	√	√
Correct systems								√	√	√	√
Correct training								√	√		
Corrupt						√					
Decision-making							√				
Decisive			√				√				
Diverse				√							
Dominant				√							
Dynamic	√		√				√	√			
Fairness										√	
Family-based							√				
Flexible	√	√					√	√	√	√	
***Guanxi*-based**				√			√				

(Left vertical label: Key dimensions required)

Table 7.3: Key Dimensions Matrix (Continued)

| Groups / Dimensions | Literature Review Categories | | | | | | | | | | |
	Organizations, Management & Leadership	Environment	Asian Way	Korean Way	Thai Way	Asian Culture	OC Way	QM & TQM	JVs	Multi-national Teams	Information, Communication & Coordination
Hard working				√				√			
Harmonious							√				
Holistic	√		√			√	√	√	√		
Individualistic				√							
Inflexible			√								
Informed							√				
Loyal			√			√	√				
Non-confrontational			√		√	√					
Non-quality based					√						
One-teaming								√	√	√	√
Openness								√			
Paternal					√		√				
Patient							√				
Politically powerful					√						
Protective				√							
Protectionist							√				
Realistic					√			√	√	√	
Realization									√		
Recruitment savvy	√				√			√	√	√	√
Respectful			√				√				
Self-restraint							√				
Simple	√	√					√	√			
Speed-based				√			√				
Structured	√				√	√	√				
Systems orientated		√									
Traditional					√						
Trained	√										
Trust-based						√	√				
Un-structured							√				
Virtuous							√				
Willing to learn					√						
Winning				√							

An analysis of Table 7.3 shows, in order of popularity with a maximum possible score of eleven, that the following key dimension groups achieved a multiple hit status:

7	awareness, collective
6	collaborative, flexible, holistic, recruitment savvy
5	clear and understanding
4	complex, correct initial set-up, correct systems, dynamic, one-teaming, realistic, simple, structured
3	conglomerate-based, loyal, non-confrontational
2	bureaucratic, correct training, decisive, *guanxi*-based, hardworking, paternal, respectful, speed-based, trusted-based

The matrix of real key management dimensions compared the literature review analysis categories and groups with the stage one interview responses, which resulted in 94 groups. A basic un-weighted comparison of the key dimension results detailed in Tables 7.2 and 7.3 is listed in Table 7.4 and shows that the following key dimension groups appear in each Table:

- Awareness
- Clear & understanding
- Collaborative
- Correct initial set-up
- Decisive
- Flexible
- Recruitment savvy
- Training

The highest scoring key dimension groups are awareness and collaborative working.

Table 7.4: Key Dimensions Comparison Matrix

Groups / Dimensions	Table 7.1		Table 7.2		Aggregate	
	Counts	%	Counts	%	Counts	%
Awareness	5	83	7	64	12	71
Bureaucratic			2	18	2	12
Clear & understanding	4	67	5	45	9	53
Collaborative	6	100	6	55	12	71
Collective			7	64	7	41
Committed	2	33			2	12
Complex			4	36	4	24
Conglomerate-based			3	27	3	18
Correct initial set-up	2	33	4	36	6	35
Correct systems			4	36	4	24
Decisive	2	33	2	18	4	24
Dynamic			4	36	4	24
Flexible	3	50	6	55	9	53
Guanxi-based			2	18	2	12
Hard working			2	18	2	12
Holistic			6	55	6	35
Loyal			3	27	3	18
Non-confrontational			3	27	3	18
One-teaming			4	36	4	24
Paternal			2	18	2	12
Realistic			4	36	4	24
Recruitment savvy	4	66	6	55	10	59
Respectful			2	18	2	12
Simple			4	36	4	24
Speed-based			2	18	2	12
Structured			4	36	4	24
Trained / Correct Training	2	33	2	18	4	24
Trust-based			2	18	2	12

7.3   SUMMARY

This chapter referred to and presented the following initial two steps in the development of the Framework:

- Step One – establishment of Conceptual Framework
    - ➢ Analyse the literature review of the four high level categories, namely the key dimension matrices established in Chapters Two through to Five, to find key dimensions at play.
    - ➢ Further analyse the literature review data to group the key dimensions within each category.
    - ➢ The Conceptual Framework comprising of four high level categories based upon the literature review chapter headings and the groups derived from an analysis of the literature review content.

- Step Two – analysis of categories and groups in the Conceptual Framework
    - ➢ The key dimensions matrix for project success, Table 7.2, listed six categories and 22 groups.
    - ➢ The key dimensions matrix for project management in Asia, Table 7.3, listed 11 categories and 59 groups.
    - ➢ The key dimensions comparison matrix, Table 7.4, listed 28 groups, which appeared more than once, to establish the emerging dominant groups.

Based upon the emerging dominant groups derived from (i) the analysis of categories and groups in the Conceptual Framework, (ii) the analysis of stage one interview responses in Section 6.4.2, and (iii) the establishment of Conceptual Framework; Chapter Eight develops the Conceptual Framework into the Primary Framework as the platform for the case study interviews and observations.

CHAPTER EIGHT – PRIMARY FRAMEWORK, CASE STUDIES & WITHIN-CASE ANALYSIS

8.1   INTRODUCTION

The introductory chapter introduced the research and provided an overview of the justification for the research, aim and objectives, research process and the basic structure of the thesis. Chapter Two through Five reported the findings of an extensive literature review of construction, Asia, TQM and PBIJVs with a clear focus to answer the research questions of how should a PBIJV approach a complex construction megaproject in Asia and how can Western expatriate project managers best manage and lead the project management of their particular megaproject from inception to completion and enable the best chance for overall project success. Chapter Six established the research methodology regarding the project management of PBIJVs on complex construction megaprojects in Asia and details of the research approach and every stage of the research process. Chapter Seven established a Conceptual Framework and selected three case studies to further develop the Framework.

The objective of this chapter is to establish a Primary Framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams and to present the findings of within case analyses of the three case studies to further develop the Framework.

This chapter presents the Primary Framework, which has been developed by including insights gained from the stage one interview process. Thereafter, the findings from the case studies conducted to explore how Western PBIJV project managers manage construction megaprojects in Asia are presented. This chapter is a within-case analysis and the next chapter is cross-case analysis.

The interview for each case study used the same questionnaire (Appendix A.24) as the basis for discussion. The questionnaire was categorised, within the project context. Interview data gathered from the exploratory semi-structured interviews were recorded. To enable any future manipulations and to conduct a robust analysis, the data was transcribed verbatim (Ritchie and Spencer: 2002).

8.2 PRIMARY FRAMEWORK

8.2.1 <u>Introduction</u>

This section establishes a Primary Framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, which is based upon the key dimension matrices for project success in construction as identified in Chapter Seven.

8.2.2 <u>Primary Framework</u>

The Conceptual Framework, detailed in Table 7.1, comprises of four high level categories based upon the literature review in Chapter Two through to Five. This Conceptual Framework is developed based upon an analysis of the stage one screening process questionnaire responses and interviews and the resultant Primary Framework is presented in the form of a high-rise building complex as shown in Figure 8.1.

The Primary Framework is depicted as a high-rise building to maintain an industry-related reference and comprises of the following structural components:

- Piles – these are the areas of research presented in Chapters Two through to Five.

- Foundation – these are the key dimensions shown in Table 7.4 [*Key Dimensions Comparison Matrix*], which are considered as project location-related.

- Plant rooms – these are the key dimensions shown in Table 7.4 [*Key Dimensions Comparison Matrix*], which are considered as project-related.

- Vertical transportation – these are the key dimensions shown in Table 7.4 [*Key Dimensions Comparison Matrix*] for project manager focus, which are shown in ascending order of importance with the lowest scoring dimension at the base.

- Basement and Tower floors – these are the personality traits and attributes considered by the screening process participants as being the most important to manage successfully in Asia.

- Roof – these are the five highest scoring key dimensions shown in Table 7.4 [*Key Dimensions Comparison Matrix*], which are considered necessary for project success.

Awareness / Collaborative / Recruitment savvy / Clear / Flexible				Roof
Multi-cultural ability	Decisive	Affable		
Aggressive / determined	Collective-based	Compassionate		
Confident	Holistic	Curious		
Customer centric	Dynamic	Communication skills		
Honest	One-teaming	Laid back		
Leadership qualities	Realistic	Not interested in detail		Tower
Open to challenges	Simple	Out-going		
Open-minded	Committed	Personable		
Rigorous	Hardworking	Sensible		
Serious	Loyal	Social		
Ability to listen	Non-confrontational	Consensual approach		
Customer respect	Paternal	Exemplary behaviour		
Ethical	Respectful	Expertise for respect		
Negotiation skills	Speed-based	Open to changes		Basement
Culturally tolerant & understanding	ENTRY	Diligent		
Correct initial set-up complex / correct systems / structured / trained				Plant Rooms
Bureaucratic / conglomerate-based / *guanxi*-based / trust-based				Foundation
OML	Environment	AWAC	QM & TQM	JVs	MNT	ICC		Piles

OML: Organization, Management & Leadership

AWAC: Asian Ways and Culture

MNT: Multi-National Teams

ICC: Information, Communication & Information

Figure 8.1: Primary Framework

8.3   CASE STUDY ONE

8.3.1   Company, JV and Project Data

Company and JV Data

PMA works for a private limited company ("Company A"), which is part of a JV, comprising of Korean and American companies, and was formed to develop a mixed-use construction project as described in Section 7.3.3. Company A is registered to operate in Korea, been operational since 2003 and is neither a subsidiary nor affiliated to a parent company that is registered outside of Korea. Company A has in-house capabilities for project management, construction management and facilities management. Project A is the first JV experience for Company A and they chose to have a written JV partnering agreement. In regard to project reporting systems, the JV chose to develop bespoke reporting systems for Project A in a joint effort with the other JV partners.

Project Data

The staffing for project management, quantity surveying and construction management for Project A has been provided in-house by the JV, whereas design services were provided by consultancies. Project-related communication has been in both the Korean and English languages, supplemented with translations, from the outset of Project A. The JV has a steering committee, which meets on a regular basis in Korea and the content of all JV meetings are minuted and communicated to PMA. Project A has the following key project documents in place:

- JV partner pre-contract agreement;
- Feasibility study;
- Business plan;
- JV partner responsibility matrix;
- Implementation plan;
- Financial close / loan agreements;
- JV partner services agreements; and

- Construction contracts (standard international form).

8.3.2 <u>Local Construction Industry and Practices</u>

Local Construction Industry

PMA considered that the credit crunch of 2007 had a significant impact on Project A and the local demand in construction generally has not been very stable in Korea since the beginning of 2008, with construction problems related with low profitability, excess capacity and a low level of technology. PMA suggested implementation of the following could improve the local construction-related industry:

- competitive bidding;
- to allow true construction management procurement (no main contractor's license required);
- un-restricted subcontractor procurement; and
- standardisation of reporting systems.

Local Construction Industry Practices

PMA argued that the local construction industry was best described as being conglomerate-based, opportunistic and structured, and believed that the main differences between the local construction industry work practices on JVs and those from the UK were competition between JV partners, cartel-based appointments by JV partners and personal work-related networking beyond project boundaries.

PMA referred changes in recent times in Korea and highlighted that *"when I first came here we started at seven in the morning and that was six days a week, six full days a week now you know most office workers, anyway service industry you know, strictly five days a week. There's not so much of the 'you have to stay until 10 o'clock until the boss goes home'; I mean, it certainly was when I first came here"*. In terms of internationalisation, PMA believed that in the long-term the Korean government would implement more internationally recognised regulations or legislation in construction. However,

PMA highlighted that Seoul was *"a city that has been built in 30 years, 40 years now maybe, from virtually nothing from the ruins of a war and an economy that's now 11th or 12th and third in the gold medals standing at the Olympics you can't say that that's not a great admirable achievement"*.

8.3.3 <u>Organizations, Management and Leadership</u>

Project Organization

PMA considered that the strategic approach taken by the JV for project staffing was a combination of in-house and out-sourcing, which was lean in nature. PMA argued that the organizational working relationship between JV personnel on Project A was best described as fragmented and siloed although it remained project-focused. Project A has personnel remotely-based outside of Korea comprising of JV partner senior management, JV partner personnel and specialist consultants.

Project Management

PMA considered that the main area for management problems on Project A was the resolution of issues at JV Board level closely followed by the management of remotely-based project consultants.

PMA believed that it is very important to motivate the project team to achieve project success and what is most expected of him on Project A by Company A and JV personnel is to be paternalistic, set realistic goals and be trustworthy. However, in regard to Koreans, PMA believed that *"they're never going to see you as a Korean and then they're never going to see you as trustworthy as their mate at middle school"*. PMA considered that in the past big Korea companies were paternalistic and expressed first-hand knowledge that "*the chaebols took on the responsibility of fulfilling that role in sort of teaching people how to behave and you know my goodness it's worked; I mean you can't say it hasn't, it's been very successful that chaebol model*". During the period after the credit crunch started in 2007, PMA motivated the team on Project A by fully explaining the steps being taken by the JV and

being fully transparent by explaining the need for possible staff retrenchment. In terms of communicating in JV meetings, PMA described his current management style as that of a structured facilitator. PMA felt happy after the day to day JV team meetings on Project A but noted that they were fluid with separate meetings within meetings.

Project Leadership

PMA believed that project leadership should empower its people to perform to their maximum potential to achieve optimum levels of company profitability and competitiveness.

8.3.4 Environment

PMA considered that the main priority of management focus on Project A since the 2007 credit crunch has been mainly on downsizing, which is closely followed by reduction of costs and slow down of construction activity. PMA argued that the most effective basic management strategy during such times was to be holistic and believed that it is necessary for project managers to acquire a more holistic management style to adequately manage the external environment. PMA confirmed that the governments of the JV partners have had involvement in Project A. PMA argued that politics, client inability to pay and an inexperienced client have been the main risks on Project A.

8.3.5 Asian Ways

Asian Ways

PMA argued that there was a fundamental difference between Western and Asian management styles and stated that "*the Western way is to conform to the law and rules whereas the Eastern way is to follow relationship-based decision-making*". In this regard, PMA believed that the Chinese and Koreans *"are controlled through Confucian ethics"* and gave the following examples:

"Many (Koreans) that have not been educated outside of Korea will report to the eldest Korean, the most senior Korean, which is almost without fail the eldest".

"I'm the President, the representative director; but they (Korean staff) don't really report to me, they report to my senior vice president".

PMA does not believe that either the Western way or the Asian way is the only way to manage but argued that excellent business and political contacts were a more prominent reflection of Asian business culture than having excellent management skills.

Korean Ways

PMA was initially surprised by the ways of working in Korea, particularly in regard to the lack of ethics, relationship-based decision-making and determination to achieve a task. However, PMA stressed that *"Koreans have a different hierarchy of ethics to Westerners"* and referred to a speech by Horace Underwood III, from the American dynasty of missionaries and educators, the Underwood family, who played a role in modern Korean history (Salmon: 2012) and who had some years earlier said in a presentation to expatriates attended by PMA in Korea that:

"'the most important thing to a Korean is his relationships with others, with his elders, his younger's, his peers and that is the strongest thing and the strongest thing for Westerners is doing what's right; what is the law on this and what is the right thing to do you know for all sorts of influences like religious and legal and statute and you know for all those reasons we make decisions in a certain way' and then you know he lists out sort of ten and he said 'why would you expect them to make the same decisions they are using different criteria on which to make decisions so why would you expect it to be the same?'. Suddenly it sort of clicked. Yeah right, got that, you know. Until you

understand that then you know it's going to be bloody difficult to get along because things are happening and you don't know really why".

PMA argued that *"I'm not all that sure that there's much difference in the result. I'm not saying the Western way is right and the Eastern way is wrong because you know sometimes it makes sense to do business with someone you know and trust you know rather than taking the cheapest price from someone you don't, so you know I think there's benefits and disadvantages to both; but you understand that's the way business is done here (Korea) and in China, same, even more so in China".*

PMA believed that Koreans *"do know what the issues are but getting it changed is not that easy. I think getting back to the Confucian thing it's difficult to criticize and to speak up and you know particularly for the younger people"*. However, PMA argued that *"the <u>inside society</u> is a lot stronger than foreigners can ever realize and the ability of older Koreans to dictate to younger Koreans is very strong. I don't think that's going to change anytime soon"*. PMA referred to a conversation some years earlier with a Korean subordinate after a cultural awareness seminar in Korea:

"'you don't know anything', you know, 'behind the curtain is the other 99%' and I <u>always</u> remember that remark that sort of show of etiquette was to him largely irrelevant you know, it's the control that the elders have is so much more important and the families have".

PMA noted that the JV partners did refer to the written agreements on Project A but argued that the project systems used by JV partners were too bureaucratic in nature and decision-making processes were slower than those employed by Company A. PMA now considers that he is accustomed to the local ways of working but did not believe that local work practices provide a better chance for project success. PMA considered that he has adapted his UK project management style to suit the demands of managing

in Korea to achieve project success. PMA argued that *"you can't ask a Korean to do something because it's the right thing to do; you have to bloody well make him do it because he has to"*. However, PMA liked the local ways of working in regard to consensual decision-making, follow-through on decisions once made and team success mentality. Conversely, PMA did not think Koreans adapted their ways.

PMA considered that complexity, hardworking, rigidity, structure and being a team player best describe the basic management philosophies of the local JV management staff on Project A. PMA argued that *"everything in Korea, I think is a dichotomy, you can say one thing about it; actually also the opposite is true"*. PMA believed that Korean society and work practices are a dichotomy where *"the strongest characteristics to Koreans is you can say one thing about them and the opposite is absolutely true and it's very difficult to explain or to understand that you might say they like eating kimchi or that sort of thing but actually they're terribly argumentative and you know they really don't like being told what to do"* and offered an example whereby *"some staff are honest and some are not but the overriding theme is that the JVs objective is the most important irrespective of the means to achieve it"*.

PMA believed that achieving initially budgeted profit margin, providing a quality product and re-negotiating new terms and conditions with JV partners are the most important to Company A on Project A, whereas for Korean JV partners maintaining the scheduled time for completion of Project A and re-negotiating new terms and conditions with JV partners are the most important.

Cultural Influences

PMA advised that Company A have neither provided him with an induction course about Asian culture nor training during the course of Project A about Asian culture and argued that such in-house training would be beneficial. PMA considered that understanding the local ways of working and communicating with the local people on Project A have been the most

challenging aspects of this overseas assignment. PMA considered that educational background and family were the biggest cultural influences on the local way of working on Project A. PMA referred to another dichotomy in Korea, which is related to the importance of education and argued that it is important *"to get a good education but to have alumni that are going to be in important positions that can help you, you know getting to Seoul National is not about getting a great education it's knowing someone that is going to be a minister one day".* PMA also considered that local business relationships, personal networks and non-confrontation were the three most positive aspects of local culture which influence success for Project A. PMA argued that business ethics, corruption, *face*, lobbying and respect were the aspects of local culture most far removed from Western culture.

PMA argued that there was a fundamental difference between Western and Asian management styles. In this regard, the three main differences encountered by PMA on Project A that differ from the UK include, performance measured by hours worked instead of success, consensus decision-making through constant dialogue rather than structured discussion and decision-making and reluctance of subordinates to speak-up in public and at meetings. PMA referred to an experience on a previous project in Korea in regard to agreement by consensus where the project team *"did it by talking around it, and pulling it and stretching it and you know analyzing it over and over and over again until it sort of gained its own shape and it was obvious to everyone what the solution was and you know they didn't do minutes of meetings; it wasn't formally like you can speak to anyone else about their views they just don't do it like that; but then they didn't need to communicate because everyone was there you know everyone knew what the decision was and how it was reached".* PMA believed that Koreans can collectively *"squeeze the solution out".*

8.3.6 TQM in Asia

TQM generally

PMA considered that neither Company A, nor the JV applied TQM principles in its daily operations but argued that TQM did effect Project A, particularly in regard to quality, management, competitiveness and effectiveness. PMA believed that practicing TQM would benefit Project A to achieve success by performing regular tasks with certain outcome, better feedback of performance and ability to improve performance. Project A has project systems in place to monitor time and cost but not quality.

PMA did not believe that any of the JV partners implemented TQM principles; however, PMA thought that TQM played an active role in the iron triangle of time, cost and quality. PMA argued that the most important criteria for determining success on Project A was by completing the project on time, within budget and to schedule; and achieving a one-teaming philosophy within the JV team. PMA believed that project manager evaluation continues to be centred on budget, schedule and performance.

TQM-related factors in Asia

PMA considered that the level of training local project personnel generally in Korea was good and on Project A was satisfactory. However, all personnel on Project A are encouraged to pursue continued professional development. PMA noted that he had never been provided with any training by Company A although he considered that it was important to have in-house management training. In regard to open communications, PMA considered that Company A actively pursued direct personal contact with JV partners and sought their input on Project A.

***Hard* and *Soft* Project Management Skills**

PMA argued that the most important factor for Project A to achieve success was in general excellent planning, but specific focus on a) *hard* project management issues was required for cost reporting and signed contract

agreements, and on b) *soft* project management issues was required in developing integrated culturally aware JV project teams and ensuring clarity of direction to all parts of the JV. In regard to *hard* and *soft* project management skills, PMA argued that *soft* management skills can be taught and project managers should not focus on *hard* project management skills more than *soft* skills.

8.3.7 Megaprojects and PBIJVs

Megaprojects

The value of Project A is in excess of USD 1,000 million and PMA considered it as a megaproject, which PMA felt was best described as a project characterised by conflict and uncertainty and poor cooperation between partners. However, PMA did not consider the culture of construction JVs as being unique and complex to control.

PBIJVs

At the outset of Project A, the main reasons for Company A having JV partners for Project A was to gain entry to the local market and obtain local knowledge and the main risks were that Company A had no prior working relationship with the JV partners who could potentially wield too much power. PMA confirmed that none of the JV partners were interested if Company A had an ISO 9000 series accreditation even though some of their foreign competitors were accredited. PMA noted that during the course of Project A employees of Company A did not attend any seminars related with the topic of ISO 9000. PMA believed that the reason JV partners chose to partner with Company A was due to their excellent business contacts.

PMA confirmed that the JV negotiation involved senior management who actually work on Project A. The JV negotiations did not include discussions about communication, coordination, information, integration and trust. PMA argued that the most prevalent JV partnering risks for Company A on Project A were differences between East and West culture and beliefs, differing

corporate cultures and differing corporate ways of working; where the Korean JV partner was only interested in construction profits and not development profits. PMA considered that the relationship between Company A and other JV partners was defensive and geared to maximise profit and of its local JV partner PMA argued that *"they weren't interested in the development profits"* and a big mistake by Company A *"was not separating development and construction interests"*. Of Korean companies PMA also argued *"I don't think they set off with the Western view; the win win, we can work together on this and both benefit, I don't think they start off with that and pretty much are looking after their own interest; what they want"*. PMA also argued that despite protestations to the contrary, a majority shareholder on a JV assumes control of a project with their own company interests at the fore rather than that of the project. PMA referred to the following example where the local JV partner utilised its network to gain control over time:

> *"Koreans are very, very good at not meeting it head-on but orchestrating it in such a way that they regained control and the way that I've seen it done three or four times is because of their network"*

Although there are many challenges associated with PBIJVs, PMA was aware of three success stories of similar JVs in Korea. However, PMA noted that Company A were considering handing over management control to the local JV partner to improve the chances of success for Project A.

8.3.8 <u>Multi-National Teams</u>

People and Culture

PMA considered that the study of culture is relevant to the project management process and awareness of such is helpful to project managers in the pursuit of project success, where non-compliance with local national culture can result in project failure. PMA argued that ambiguity and differences between corporate cultures has affected management processes the most in a negative way on Project A.

Multi-National Project Teams

Three nationalities are directly involved in Project A and based full-time in Korea and Company A has employed staff who have previously worked for one of the other JV partners. More than 20 companies have provided consultancy services to the JV on Project A and PMA confirmed that between 5-10% of the JV personnel on Project A were specialist expatriate knowledge workers. PMA described the Project A team as being multi-cultural globally dispersed and the most problematical issues related with managing such a project team was achieving trust and open communication between all of the project team and having conference calls instead of face to face meetings. PMA strongly believed that people on construction projects should be organised to be a fully integrated and cohesive team.

8.3.9 Information, Communication and Coordination

General

For the purposes of communicating, the JV introduced a web-based collaborative PMIS for Project A; other communication tools included video conferencing and CAD. PMA believed that an effective communication system between Company A and JV partners is very important. However, PMA considered that evaluation of the performance of key personnel on Project A, including that of the project manager, is not communicated. PMA argued that the most problematical issues related with managing a dispersed JV project e-team were achieving trust and open communication between all of the project team. However, PMA argued that *"communication will breakdown if you try to go against the grain if you like, the systems that they're used to"* and *"if you want to make the business a* success, *whatever it is, you've got to recognize that's the way to do it, you know, if you try to go against the grain then I just don't think it's going to work"*.

Documents

Document control on Project A adopted maintenance of records via a dedicated server system for Company A documents and a web-based collaborative PMIS for JV documents.

8.3.10 Expatriate Life

Personal Data

Section 6.4.2 lists personal data about PMA provided during the screening process. During the course of this case study, PMA described his core principles for project-based management in Asia as having a consensus-based approach, being fair but firm and having to know everything as the devil is in the detail. However, PMA highlighted that these core principles were not self-evident at the outset of working in Asia but evolved over a period of two years.

Nexus between Personal Life and Work Life

PMA considered that maintaining a happy family in-country and managing project-related were equally pressurised. In regard to the most challenging aspects of being a project-based expatriate living overseas, PMA stressed the fact that his family is Korean and "*a lot of expats marry locals and this should be considered in your study, big subject though; but dealing with banks, local government etc. in a foreign language and lack of access to TV, sport and good beer and British foods both in restaurants and at the supermarket*" were the most challenging aspects.

8.3.11 New Ways of Working

Return of Experience – from the Project

PMA believed that the role of project manager on Project A is like that of a cricket all-rounder and considered that the most important *hard* management-related topics for success on Project A are cost reporting and the training of technical topics to the local staff. In regard to *soft* management issues, which needed the most attention on Project A, PMA believed was to

ensure clarity of direction provided to all parts of the JV, the development of an integrated culturally aware project team and maintaining a respectful interaction between JV partners at all levels. PMA highlighted that the most problematical issues faced on a regular basis on Project A have been project people not following project manager directives and non-compliance with agreements. If able to turn back the clock, PMA would set-up the staff organisation differently and take even more account of differences in the way of working and culture, have more training of all staff and have clearer initial agreements and from a personal angle would have "*learnt Korean from the beginning. However, when I worked in Spain and Mexico I learnt Spanish and learning another language seemed too hard but if I knew I was going to stay for 17 years it would have made sense*".

Return of Experience – from working overseas as a full-time expatriate

PMA argued that it is not important to have overseas working experience in any given country prior to actually working in that country as a project manager. In regard to project manager skills, PMA considered that flexibility of thought to adapt to any given project situation and interacting in a collaborative way with all project-related people were currently the most important management factors to achieve project success on construction projects in Asia. In regard to project manager focus, PMA considered acceptance that change is inevitable and being tolerant of other cultures needs project manager acceptance and buy-in.

PMA believed that being aware, collaborative, fair but firm, politically astute, realistic, having situational flexibility and being structured are the most important *soft* management principles for project managers to have to successfully manage a construction megaproject in Asia. Conversely, PMA considered that being a champion of one-teaming, decisive in decision-making, diligent, hardworking, harmonious, non-confrontational and clear in communications were the least important for project managers.

PMA considered that the terms confident, good communicator, open to new challenges, professionally competent, sensible and team player best described the successful Western expatriates in project management positions of which PMA had working knowledge.

Looking to the Future

PMA considered that having the flexibility to adapt to any given project situation and being aware of all matters related with the project would be the most important management factors in the future to achieve project success on construction projects in Asia. PMA considered that the most critical areas of mis-management that needs to be addressed to avoid project failure are pandering to the needs of your company rather than the project, deviating away from the JV agreement and allowing a JV partner to take key staff positions at the outset of the project. PMA argued that the most important attributes for a project manager to have are being adaptable, customer-centric, honest, open to challenges, open-minded and culturally sensitive with a management approach that is flexible and holistic. PMA believed that *"even if you don't come with that sort of open-mindedness to other cultures then one way to get it is to ask, you know, and listen to what the opinions of people that perhaps have experienced it instead"*.

PMA believed that *"it's very difficult for foreign contractors to operate in Korean at the moment; impossible in fact, and you know there isn't one; there hasn't ever been one and a few have tried"*. Moreover, PMA was not aware of another Western company that had proceeded with a second construction-related project in Korea on a JV basis, PMA considered it likely that Company A would proceed with another construction-related project in Korea and recommended other foreign companies to do the same. In this regard, PMA considered that it would be of benefit to Western project managers to have a framework to improve project management skills on PBIJV construction megaprojects in Asia.

PMA offered the following advice to project managers embarking on an expatriate lifestyle – "*learn the local language and respect the culture*" and *"if you can fulfill the role that they sort of expect from you know that relationship and, and those things are you know they expect you to be ethical and they expect you to be well organized, they expect you to know the latest techniques that you've learned you know in the advanced world and if you can fulfill those things then I think you can use their reliance on relationship rather than just giving them instructions on what to do so you know to a certain extent you just got to let them get on with it; you know they are pretty good at doing stuff so you don't need to micro manage it"*.

8.3.12 <u>Summary of Findings</u>

PMA argued that there was a fundamental difference between Western and Asian management styles and over a period of fifteen years had adapted his UK management style to accommodate the local ways of working in the pursuit of project success and liked the local ways of working in regard to consensual decision-making, follow-through on decisions once made and team success mentality. The findings of the analysis of PBIJV success on Project A is shown in Table 8.1 and findings of analysis of the management principles of PMA are shown in Table 8.2.

The following summarises the findings from Case Study One based on questionnaire responses, observations and interview review on key issues associated with effective management practices on construction mega projects in Asia:
- project success primarily based upon excellent planning, completing on time and within budget with a one-teaming philosophy
- TQM impacted the project in terms of time, cost and quality
- local JV partner perceived as being defensive
- significant project problems include local JV partner non-compliance with agreements and project people not following PM directives

- a major risk was that Company A had no prior experience with the selected JV partners or working in Korea
- not important for PM to have prior in-country work experience
- PMA adapted UK project management style to suit demands of Korea
- PMA married to a Korean
- neither the Western or Asian way is the only way to manage
- PM should not focus on *hard* project management skills more than *soft* skills
- important to have in-house management training
- project management should focus more on the study of national culture
- awareness of the importance of family-control, seniority and relationship-based decision-making.

Table 8.1: Case Study One: Analysis of PBIJV Success on Project A

	FOREGROUND	BACKGROUND
HARD	JVs are unique and complex to control	no government involvement in project / in the long-term the Korean government would implement more internationally recognized regulations or legislation in construction
	JV steering committee	resolution of project issues at JV Board level were problematical
		not important for the project manager to have prior working experience in the country
	structured project planning with signed agreements	JV partners did refer to written agreements but local JV partner deviated away from the JV agreement during the project
	effective communication system with JV partners is very important	JV negotiations did not include discussions about communication, coordination, information, integration and trust
	fair distribution of project power between JV partners	foreign JV partner 'allowed' local JV partner to take key staff positions at the outset of the project
	combination of in-house and out-sourced project personnel	local business is conglomerate-based, opportunistic and structured with cartel-based appointments by local JV partner
	bespoke project JV reporting systems a collective effort by JV partners	local JV partner systems too bureaucratic with slow decision-making / standardisation of reporting systems could improve local construction industry
	cost reporting	local JV partner only interested in construction profits and not development profits
	project systems in place to monitor time and cost but not quality	none of the JV partners were interested if partner had ISO 9000 series accreditation
	training of project staff is beneficial to the project	level of training of local project personnel in Korea was good
	complete project on time, within budget and to schedule	client inability to pay and an inexperienced client are project risks
SOFT	project systems in place monitor time and cost but not quality	none of the JV partners were interested if partner had ISO 9000 series accreditation
	TQM principles not directly applied by JV	practicing TQM would benefit the JV
	JV leadership should empower its people	reluctance of subordinates to speak-up in public
	joint effort by JV partners on project	competition between JV partners with defensive relationship geared to maximise profit
	clarity of direction to all parts of the JV	difficult to achieve project team trust and open communication
	project focused staff	personal work-related networking beyond project boundaries
	try to get a fully integrated and cohesive project team comprising of a multi-cultural globally dispersed JV team	megaprojects characterised by conflict, uncertainty and poor cooperation between JV partners
	interact in a collaborative way with all project related people	
	develop cultural awareness within JV project team	no cultural training for project staff
	pursue direct personal contact between JV partners	organisational working relationship fragmented and siloed
	communication with translators	company self-interests at the fore rather than that of the project
	web-based collaborative PMIS	management of remotely-based project consultants were problematical
	achieve a one-teaming philosophy	conference calls instead of face to face meetings

Table 8.2: Case Study One: Analysis of Management Principles of PMA

		FOREGROUND	BACKGROUND
HARD		have clear initial JV agreements	
		basic management philosophy of local JV management staff is to be structured	constant dialogue between local staff rather than structured discussions
		cost reporting	
		regular project JV meetings	meetings fluid with meetings within meetings where project manager in a JV is like a cricket all-rounder
		most important factor for project success is excellent planning	
		training of technical topics to local JV staff	
SOFT		focus more on *soft* than *hard* skills	
			maintaining a happy family in-country and managing JV were equally pressurised
		be aware, collaborative, fair but firm, politically astute, realistic and have situational flexibility	holistic management style
		be customer-centric, flexible, honest, open to challenges, open-minded and culturally sensitive	
		have a consensus-based approach and know about everything as the 'devil is in the detail'	
		accept that change is inevitable	
		flexibility of thought to adapt to any given project situation	
		very important to motivate the project team	
		JV meeting management style of a structured facilitator	JV personnel expect the project manager to be paternalistic, set realistic goals and trustworthy
		maintain a respectful interaction between JV partners at all levels	
		ensure clarity of direction provided to all parts of the JV	
		be aware of differences between Western and Asian management styles	excellent business and political contacts more important than excellent management skills in Asian culture
		has become accustomed to local work practices	adapted management style to suit local demands
		study the local culture as it is relevant to the project management process and be tolerant of other cultures	non-compliance with national culture can result in project failure
		develop an integrated culturally aware project team	although considered beneficial, cultural training not provided to JV staff

8.4 CASE STUDY TWO

8.4.1 Company, JV and Project Data

Company and JV Data

PME works for a private limited company ("Company E"), which is part of an alliance, comprising of South-East Asian companies, and was formed to develop a multi-use commercial development project as described in Section 7.3.3. Company E is registered to operate in Korea, has been operational since 2002 and is neither a subsidiary nor affiliated to a parent company that is registered outside of Korea. Company E has in-house capabilities for

project and construction management. Project E is the first JV experience for Company E and they chose not to have a written JV partnering agreement. In regard to project reporting systems, the JV chose to develop bespoke reporting systems for Project E and such was developed by Company E. However, PME argued that the local construction industry would not benefit from the standardisation of reporting systems.

Project Data

The staffing for asset, design, project and construction management for Project E has been provided in-house by the JV, whereas design and quantity surveying services were provided by consultancies. Project-related communication has been in both the Korean and English languages, supplemented with translations, from the outset of Project E. The JV has a steering committee, which meets on a regular basis in Korea and the content of all JV meetings are minuted and communicated to PME. Project E has the following key project documents in place:

- Feasibility study;
- Business plan;
- Financial close / loan agreements; and
- Construction contracts (standard international form).

8.4.2 Local Construction Industry and Practices

Local Construction Industry

PME considered that the credit crunch of 2007 had a significant impact on Project E insofar as the progress of the site works had been suspended as the local demand in construction generally has not been very stable in Korea since the beginning of 2008, with construction problems related with low profitability, excess capacity and a low level of technology. PME suggested implementation of the following could improve the local construction-related industry:

- more attention to detail;

- improved welfare facilities for the workforce; and

- less reliance on a subcontracted workforce.

Local Construction Industry Practices

PME argued that the local construction industry was best described as being conglomerate-based and believed that the main differences between the local construction industry work practices on JVs and those from the UK were cartel-based appointments by JV partners and personal work-related networking beyond project boundaries. In terms of internationalisation, PME believed that in the long-term the Korean government would implement more internationally recognised regulations or legislation in construction.

8.4.3 <u>Organizations, Management and Leadership</u>

Project Organization

PME considered that the strategic approach taken by the JV for project staffing was an in-house strategy. PME argued that the organizational working relationship between JV personnel on Project E was best described as matrix in nature and strained. Project E has personnel remotely-based outside of Korea comprising of senior management from Company E and JV partner personnel.

Project Management

PME considered that the main area for management problems on Project E was the management of remotely-based project consultants closely followed by the management of JV partner project personnel.

PME believed that it is very important to motivate the project team to achieve project success and what is most expected of him on Project E by Company E personnel is to show that you believe in them, set realistic goals and be trustworthy. Whereas what is most expected of him on Project E by JV personnel is to set realistic goals, show that you believe in them and be a good listener. During the period after the credit crunch, which started in 2007,

PME believed the team on Project E was motivated by being on the receiving end of fully transparent information and having the need for possible staff retrenchment being explained to them. In terms of communicating during meetings, PME described his current management style as that of a facilitator. PME felt happy after the day to day JV team meetings on Project E but noted that they were fluid with separate meetings within meetings.

Project Leadership

PME strongly believed that project leadership should empower its people to perform to their maximum potential to achieve optimum levels of company profitability and competitiveness.

8.4.4 Environment

PME considered that the main priority of management focus on Project E since the 2007 credit crunch has been on the reduction of costs, which is followed by a slowdown of construction activity and increasing efficiency. PME argued that the most effective basic management strategy during such times was to be combative and believed that it is necessary for project managers to acquire a more holistic management style to adequately manage the external environment. PME confirmed that the governments of the JV partners have had no involvement in Project E. PME argued that technical failure in the construction process, client inability to pay and an inexperienced client have been the main risks on Project E.

8.4.5 Asian Ways

Asian Ways

PME argued that there was a fundamental difference between Western and Asian management styles and believed that the Asian style deals with issues as a team but was restricted by company policies and procedures. PME does not believe that either the Western way or the Asian way is the only way to manage but argued that excellent business and political contacts were a more prominent reflection of Asian business culture than having excellent

management skills yet argued that having excellent management skills was the most important project manager possession of the three. PME believed that the fundamental difference between his way of working in Asia and the style of working expected of him by the locals is one of being "*more flexible to encourage the team to ask questions why something is happening*".

Korean Ways

PME was not initially surprised by the ways of working in Korea. PME noted that the JV partners did not refer to the written agreements on Project E but argued that the decision-making processes used by JV partners were slower than those employed by Company E. PME now considers that he is accustomed to the local ways of working and preferred local work practices and believed that they provide a better chance for project success as compared to the work practices of Company E. PME considered that he has adapted his UK project management style to suit the demands of managing in Korea to achieve project success. However, PME liked the local ways of working in regard to generating a team atmosphere for making decisions, the work ethic of working hard and productively as a team. PME considered that being non-confrontational, non-ambiguous, simple, consensual, hardworking, rigid, un-structured and ethical best describe the basic management philosophies of the local JV management staff on Project E.

PME believed that ensuring a quality product is provided, maintaining the scheduled time for project completion and achieving initially budgeted profit margin for the project were the most important to both Company E and the JV on Project E.

Cultural Influences

PME advised that Company E have neither provided him with an induction course nor training during the course of Project E about Asian culture and argued that such in-house training was not important. The most challenging aspects of working overseas for PME were communicating with the local

people on Project E and understanding the local ways of working; and the main differences encountered in the work place were maintaining communication skills in a country where the English language is not commonly used, dealing with the weather over four seasons and breaking down the rigid nature of the "boss"/employee relationship. PME considered that company allegiance, educational background and politics were the biggest cultural influences on the local way of working on Project E and that trust, *face* and local business relationships were the three most positive aspects of local culture which influence success for Project E. PME argued that business ethics, respect and speed-based decision-making were the aspects of local culture most far removed from Western culture.

8.4.6 TQM in Asia

TQM generally

PME considered that neither Company E, nor the JV applied TQM principles in its daily operations and was not convinced that TQM brings any benefits to the construction industry but did believe that TQM impacts quality, management, price and cost on Project E, which has project systems in place to monitor time, cost and quality. PME argued that "*management systems are only as good as the final inspection of the product we are selling to a Client and my experience has told me that comes down to good training and site supervision not TQM*". PME gave an example that the Korean contractor on Project E presented a "*huge amount of paperwork and training that directed them to provide a quality product to their client and to protect their branding. So many times their QA procedures showed that the works were complete and to the correct quality only to go out onto the site and find this was not the case*".

PME argued that the most important criteria for determining success on Project E was achieving a coherent working JV project team, achieving a one-teaming philosophy within the JV project team and exceeding JV project

objectives. PME strongly believed that project manager evaluation continues to be centred on budget, schedule and performance.

TQM-related factors in Asia

PME considered that the level of training local project personnel generally in Korea and on Project E was poor. However, all personnel on Project E are encouraged to pursue continued professional development. PME noted, however, that he had never been provided with any training by Company E although he considered that it was important to have in-house management training. In regard to open communications, PME considered that Company E actively pursued direct personal contact with JV partners on Project E.

Hard and *Soft* Project Management Skills

PME argued that excellent planning, good project systems, hard work and people with correct qualities were all of equal importance for Project E to achieve success, but specific focus on a) *hard* project management issues was required for project scheduling, project systems and project and JV business plans, and on b) *soft* project management issues considered that all *soft* issues were of equal importance. In regard to *hard* and *soft* project management skills, PME argued that *soft* management skills can be taught and project managers should treat *hard* and *soft* project management skills as being equally important.

8.4.7 Megaprojects and PBIJVs

Megaprojects

The value of Project E is in excess of USD 1,000 million and PME considered it as a megaproject, which PME felt was best described as a project spreading risk and obtaining local knowledge and contacts. PME argued that the culture of construction JVs is unique and complex to control.

PBIJVs

At the outset of Project E, the main reasons for Company E in having JV partners for Project E was to spread risk and utilise local contacts and the main risk for Company E in having JV partners is that they have majority ownership of the JV. PME confirmed that none of the JV partners were interested if Company E had an ISO 9000 series accreditation even though some of their foreign competitors were accredited and noted that during the course of Project E, employees of Company E did not attend any seminars related with the topic of ISO 9000. PME believed that the reason JV partners chose to partner with Company E was due to their excellent business contacts.

PME confirmed that the JV negotiation involved senior management who actually work on Project E. PME is unaware if the JV negotiations included discussions about communication, coordination, information, integration and trust. PME argued that the most prevalent JV partnering risks for Company E on Project E were differing corporate ways of working and corporate cultures. PME considered that the relationship between Company E and other JV partners was defensive and geared to maximise profit. PME argued that despite protestations to the contrary, a majority shareholder on a JV assumes control of a project with their own company interests at the fore rather than that of the project. There are many challenges associated with PBIJVs and PME was only aware of one success story of a similar JV in Korea. However, PME noted that Company E is currently re-negotiating project finance to proceed with the project to improve the chances of success for Project E.

8.4.8 Multi-National Teams

People and Culture

PME considered that the study of culture is relevant to the project management process and awareness of such is helpful to project managers in the pursuit of project success, where non-compliance with local national

culture can result in project failure. PME argued that company rather than project loyalties and differences between corporate cultures have affected management processes the most on Project E.

Multi-National Project Teams

In excess of five nationalities are directly involved in Project E and based full-time in Korea and Company E chose not to employ staff who had previously worked for one of the other JV partners. PME confirmed that in excess of 25% of the JV personnel on Project E were specialist expatriate knowledge workers. Between ten to fifteen companies have provided consultancy services to the JV on Project E. PME described the Project E team as locally project-based and the most problematical issues related with managing such a project team are achieving clarity of communication, achieving trust between all of the project team and having conference calls instead of face to face meetings. PME strongly believed that people on construction projects should be organised to be a fully integrated and cohesive team.

8.4.9 <u>Information, Communication and Coordination</u>

General

For the purposes of communicating, the JV introduced a web-based collaborative PMIS for Project E; other communication tools included Company intranet, e-mail system, server system, CAD and video conferencing. PME believed that an effective communication system between Company E and JV partners is very important. However, PME considered that evaluation of the performance of key personnel on Project E, including that of the project manager, is only communicated some of the time, for the purpose of performance bonuses. PME believed that the most problematical issues related with managing a dispersed JV project e-team were achieving a team spirit within the project team, conference calls instead of face to face meetings and fragmented discussions with language translations. PME argued that his basic philosophy to manage Project E dispersed teams and multiple project shareholders was to "*properly research*

and listen to the issues to ensure that stakeholders understand you know what you are talking about".

Documents

Document control on Project E adopted maintenance of records via a dedicated server system for Company E documents and a web-based collaborative PMIS for JV documents.

8.4.10 <u>Expatriate Life</u>

Personal Data

Section 6.4.2 lists personal data about PME provided during the screening process. During the course of this case study PME described his core principles for project-based management in Asia as having a consensus-based approach and being fair but firm. However, PME highlighted that although these core principles were applied by PME at the outset of working in Asia they have evolved over the six year period PME has been working in Asia to "*enable trust to develop between the stakeholders by creating an open environment to share problems when necessary but to be clear and decisive when instructions are necessary*".

Nexus between Personal Life and Work Life

It was very important for PME to live with his family during the project-based assignment in Korea and PME believed that the most challenging aspect of being a project-based expatriate living overseas was for his family having to constantly adjust to their new surroundings. The main difficulties encountered by PME's family to settle in Korea were the language, culture in the way the Korean family and work life are separated and distance from the extended family. PME considered the collective traits of his family were being adventurous and inquisitive, and also considered that maintaining a happy family in-country and managing project-related issues were equally pressurised.

8.4.11 New Ways of Working

Return of Experience – from the Project

PME believed that the role of project manager on Project E is like that of a referee and maintained the view that all *hard* and *soft* management-related topics are of equal importance for project success. PME highlighted that the most problematical issues faced on a regular basis on Project E has been mis-communication between project people and project people not following project manager directives. However, if able to turn back the clock PME would not set-up the staff organisation differently. PME managed and lead the project management on the Project by encouraging staff to "*take ownership of their duties and responsibilities whilst maintaining regular contact to ensure that they are able to understand their successes and failures*".

Return of Experience – from working overseas as a full-time expatriate

PME argued that it is not important to have overseas working experience in any given country prior to actually working in that country as a project manager. In regard to project manager skills and focus, PME considered that all project-related matters should be dealt with the same level of importance to achieve project success.

PME believed that being aware, clear in communicating, diligent, fair but firm, hardworking, realistic, having situational flexibility, being structured and understanding situations are the most important *soft* management principles for project managers to have to successfully manage a construction megaproject in Asia.

PME considered that the terms confident, good communicator, open to new challenges, professionally competent and sensible best described the successful Western expatriates in project management positions of which PME had working knowledge.

Looking to the Future

PME considered that being positively committed to the project at all times, decisive when making project decisions and ensuring that the project team is technically well-trained would be the most important management factors in the future to achieve project success on construction projects in Asia. PME considered that the most critical areas of mis-management that needs to be addressed to avoid project failure are; not hiring people based on second language ability but on position suitability, not pandering to the needs of your company rather than the project and not allowing a JV partner to take key staff positions at the outset of the project. PME argued that the most important attributes for a project manager to have are being open-minded, patient and adaptable with a management approach that is dynamic, flexible and holistic.

PME was not aware of another Western company that had proceeded with a second construction-related project in Korea on a JV basis and believed it unlikely that Company E would proceed with another construction-related project in Korea and would not recommend other foreign companies to enter into a JV-related construction project in Korea. In this regard, PME considered that it would not be of benefit to Western project managers to have a framework to improve project management skills on PBIJV construction megaprojects in Asia.

PME has no regrets about his expatriate adventure and offered the following advice to project managers embarking on an expatriate lifestyle – "*be ready to listen and take time to understand before you make a decision*".

8.4.12 <u>Summary of Findings</u>

PME argued that there was a fundamental difference between Western and Asian management styles and over a period of five years had adapted his UK management style to accommodate the local ways of working in the pursuit of project success and liked the local ways of working in regard to generating

a team atmosphere for making decisions, the work ethic of coming to work hard and productively as a team. The findings of the analysis of PBIJV success on Project E is shown in Table 8.3 and findings of analysis of the management principles of PME are shown in Table 8.4.

The following summarises the findings from Case Study Two based on questionnaire responses, observations and interview review on key issues associated with effective management practices on construction mega projects in Asia:

- project success primarily based upon exceeding JV objectives and achieving a coherent project team with a one-teaming philosophy
- did believe that TQM impacts quality, management, price and cost on the project
- local JV partner perceived as being defensive
- significant project problems include mis-communication between project people and project people not following PM directives
- a major risk was that Company E local JV partner had majority ownership
- not important for PM to have prior in-country work experience
- PME adapted UK project management style to suit demands of Korea
- neither the Western or Asian way is the only way to manage
- *hard* and *soft* management-related topics are of equal importance
- important to have in-house management training
- project management should focus more on the study of national culture

Table 8.3: Case Study Two: Analysis of PBIJV Success on Project E

	FOREGROUND	BACKGROUND
HARD	JVs are unique and complex to control	no government involvement in project / in the long-term the Korean government would implement more internationally recognized regulations or legislation in construction
	JV steering committee	company self-interests at the fore rather than that of the project
	foreign JV company chosen for excellent business contacts	local ways include JV staff company allegiance, educational background and politics
		not important for the project manager to have prior working experience in the country
	most important factor for project success is excellent planning	local industry requires more attention to detail
	signed construction contracts	no written JV partnering agreement
	employ people with correct qualities	local relationships rely on trust, face and local business relationships
	effective communication system with JV partners is very important	fragmented discussions due to on-going translations
	combination of in-house and out-sourced project personnel	local business is conglomerate-based with cartel-based appointments by local JV partner
	bespoke project JV reporting systems by Company E	local JV partners had slower decision-making processes
	good project systems	local construction industry would not benefit from standardisation of reporting systems
	ensure a quality product is provided	JV partners not interested in ISO 9000 series accreditation
	maintain scheduled time for completion and achieve initially budgeted profit margin	defensive relationship between JV partners geared to maximise profit
	technical failure in the construction process is a risk	technical training on the job of locals is poor
	training of project staff is beneficial to the project as technically well-trained people are essential	training of local culture is not important
SOFT	leadership should empower its people	personal work-related networking beyond project boundaries
	TQM principles not directly applied by JV	practicing TQM would not benefit the JV
	trying to get a fully integrated and cohesive project team	dispersed project team
	pursue direct personal contact between JV partners	organisational working relationship matrix in nature and strained
	communication in Korean and English with translators	difficult to achieve clarity of communication and trust between all of JV project team
	web-based collaborative PMIS	problems to manage the Consultants and JV personnel remotely-based outside of Korea
	achieve a one-teaming philosophy	conference calls instead of face to face meetings

Table 8.4: Case Study Two: Analysis of Management Principles of PME

		FOREGROUND	BACKGROUND
HARD		basic management philosophy of local JV management staff is to be structured and in a decisive and professionally competent manner	industry would not benefit from standardisation of reporting systems
		focus on project scheduling, project systems and business plans	local management principles based on being non-confrontational, non-ambiguous, simple, consensual, hardworking, rigid, un-structured and ethical
		regular project JV meetings	meetings fluid with meetings within meetings where the project manager is a JV referee
		most important factor for project success is excellent planning	
SOFT		focus on both *soft* and *hard* skills with equal importance	
		deal with all project-related matters with the same level of importance	
		family dynamic of having to adjust to new surroundings and maintain a happy family	maintaining a happy family and managing JV equally pressurised
		be adaptable, aware, clear in communicating, confident, dynamic, diligent, good communicator, hardworking, open-minded, patient, realistic, sensible, have situational flexibility, trustworthy and understanding of situations	holistic management style
		positively committed to the project	
		have a consensus-based approach and be fair but firm	non-compliance with local culture can result in project failure
		very important to motivate the project team	
		JV meeting management style of a facilitator	JV personnel expect the project manager to show he believes in them, set realistic goals and be a good listener
		break down rigid local boss / employee relationship	mis-communication between project people who do not follow directives
		be aware of differences between Western and Asian management styles	excellent business and political contacts more important than excellent management skills in Asian culture
		understand locals ways of working	differing corporate ways of working and corporate cultures, non-compliance with national culture can result in project failure
		likes local ways of working in regard to generating good team atmosphere, work ethic and team productivity	
		has become accustomed to local work practices	adapted management style to suit local demands

8.5   CASE STUDY THREE

8.5.1   Company, JV and Project Data

Company and JV Data

PMF works for a public limited company ("Company F"), which is part of a JV, comprising of Korean and American companies, and was formed to develop a mixed-use construction project as described in Section 7.3.3. Company F is registered to operate in Korea, has been operational since 2006 and is a

subsidiary of a parent company that is registered in the US and been operational for over 15 years. Company F has in-house capabilities for facilities management. Project F is the first JV experience for Company F and they chose to have a written JV partnering agreement although the initial agreement was the most important with the local JV partner and was a *"two or three sentence MOU".* In regard to project reporting systems, the JV chose to implement the standard reporting systems for Project F as previously developed by Company F's parent company.

Project Data

The staffing of project and construction management for Project F has been provided in-house by the JV, whereas design and quantity surveying services were provided by consultancies. Project-related communication has been in the English language from the outset of Project F. The JV has a steering committee, which meets on a regular basis in Korea and the content of all JV meetings are minuted and communicated to PMF. Project F has the following key project documents in place:

- Feasibility study;
- Business plan;
- JV partner responsibility matrix;
- Implementation plan;
- Financial close / loan agreements;
- JV partner services agreements; and
- Construction contracts (standard international form).

8.5.2 Local Construction Industry and Practices

Local Construction Industry

PMF did not believe that the credit crunch of 2007 had a direct negative impact on Project F, although PMF was unsure whether local demand in construction generally had been stable in Korea since the beginning of 2008. PMF believed that the three things which could improve the local

construction-related industry were "*honesty, honesty and honesty*". PMF also considered that the standardisation of reporting systems would benefit the local construction industry.

Local Construction Industry Practices

PMF argued that the local construction industry was best described as being conglomerate-based and believed that the main differences between the local construction industry work practices on JVs and those from the US were competition between JV partners and cartel-based appointments by JV partners. In terms of internationalisation, PMF believed that in the long-term the Korean government would implement more internationally recognised regulations or legislation in construction.

The contractors selected to build Project F were Korean, and PMF highlighted the following problems became apparent during the project:

> "*I think one of the issues here is the fact with these contractors a lot work for themselves; you know, in this chaebol world here they are almost their own developer/contractor and they kind of report to themselves. It is just a pride thing where they don't feel like they need to report to anybody else except to themselves.*"

> "*contractors rarely comply and following the specifications we find a lot of times that products would be changed and we would discover the change and we'd say who approved the change and the answer would be 'well we couldn't get that product so we bought this product'*".

8.5.3 Organizations, Management and Leadership

Project Organization

PMF considered that the strategic approach taken by the JV for project staffing was focused on in-house staffing. PMF argued that the organizational working relationship between JV personnel on Project F was best described

as matrix in nature yet also described it as being consensual, harmonious and project-focused. Project F has personnel remotely-based outside of Korea comprising of senior management and personnel from Company F and specialist consultants.

Project Management

PMF considered that the main area for management problems on Project F was the resolution of issues at JV Board level closely followed by the management of remotely-based project consultants.

PMF believed that it is very important to motivate the project team to achieve project success, however, PMF did not consider it necessary to motivate the project team during difficult economic times to achieve project success as such events are part of business. PMF argued what is most expected of him on Project F by Company F personnel is to be trustworthy, set realistic goals and to be a good listener. Whereas, PMF believed what is most expected of him on Project F by JV personnel is to be trustworthy, set realistic goals and offer praise when praise is due. In terms of communicating in JV meetings, PMF described his current management style as being structured yet at times PMF felt exasperated if anything was actually agreed in the day to day JV team meetings on Project F.

Project Leadership

PMF believed that project leadership should empower its people to perform to their maximum potential to achieve optimum levels of company profitability and competitiveness.

8.5.4 Environment

PMF considered that the main priority of management focus on Project F since the 2007 credit crunch has been mainly on reducing costs, increasing efficiency and improving product and service quality. PMF argued that the most effective basic management strategy during such times was to be

cooperative rather than holistic yet believed that it is necessary for project managers to acquire a more holistic management style to adequately manage the external environment. PMF confirmed that the governments of the JV partners have had involvement in Project F and noted that the Company CEO and the Mayor of Seoul were involved in the JV negotiation. PMF argued that delay in project completion; politics and reduced profit margin with loss of profit have been the main risks on Project F.

8.5.5 Asian Ways

Asian Ways

PMF argued that there was a fundamental difference between Western and Asian management where the main differences were priorities, goals, final product, and single style versus open opinions and closed versus open style. PMF does not believe that either the Western way or the Asian way is the only way to manage but argued that excellent business and political contacts were a more prominent reflection of Asian business culture than having excellent management skills yet argued that having excellent management skills was the most important project manager possession of the three to achieve project success in Korea.

Korean Ways

PMF was initially surprised by the ways of working in Korea, particularly in regard to honesty, ethics and politics. PMF was unsure if the JV partners were too bureaucratic in nature or if the JV partners referred to the written agreements on Project F but argued that the decision-making processes of the JV partners were slower than those employed by Company F. PMF now considers that he is accustomed to the local ways of working but did not believe that local work practices provided a better chance for project success and did not like the local ways of working. PMF considered that he has slightly adapted his US project management style to suit the demands of managing in Korea to achieve project success and argued that it is necessary to compromise between Western and Asian management styles.

PMF believed that ensuring a quality project product is provided, maintaining the scheduled time for project completion and achieving initially budgeted profit margin were the most important to Company F on Project F, whereas for Korean JV partners re-negotiating new terms and conditions with JV partners, agreeing a mutually acceptable JV agreement with JV partners and achieving the initially budgeted margin for Project F and were the most important.

Cultural Influences

PMF advised that Company F have neither provided him with an induction course about Asian culture nor training during the course of Project F about Asian culture and argued that such in-house training would be beneficial. PMF considered that understanding the local ways of working and communicating with the local people on Project F have been the most challenging aspects of the overseas assignment in Korea. PMF considered that educational background, company allegiance and family were the biggest cultural influences on the local way of working on Project F and that personal networks, *face* and local business relationships were the three most positive aspects of local culture which influence success for Project F. PMF argued that corruption, *face*, logic, networking and non-confrontational nature were the aspects of local culture most far removed from Western culture. PMF also expanded upon matters of *face* and logic, and argued that *"the Chinese were more relaxed, they had a real concern for loss of face but they also didn't seem to be so tight about making a mistake; the Koreans to me just are so afraid they're going to do something wrong"* and *"in my Western way of thinking there's absolutely no logic to what they say you know and so I determined that logic doesn't really apply here"*.

The three main differences encountered by PMF on Project F that differ from working in the US include, language, culture and living conditions.

8.5.6 TQM in Asia

TQM generally

PMF considered that neither Company F, nor the JV applied TQM principles in its daily operations but argued that TQM did affect Project F, particularly in regard to quality, management, price and cost. Project A has project systems in place to monitor time, cost and quality.

PMF did not believe that any of the JV partners implemented TQM principles; however, PMF thought that TQM played an active role in the iron triangle of time, cost and quality. PMF argued that the most important criteria for determining success on Project F was by meeting external client requirements, achieving a coherent working JV project team and exceeding JV project objectives. PMF believed that project manager evaluation continues to be centred on budget, schedule and performance.

TQM-related factors in Asia

PMF considered that the level of training of local project personnel generally in Korea was good and on Project F was satisfactory. However, all personnel on Project F have been encouraged to pursue continued professional development. PMF noted, however, that he had never been provided with any training by Company F albeit he did not consider it was important to have in-house management training. In regard to open communications, PMF considered that Company F actively pursued direct personal contact with JV partners and sought their input on Project F.

Hard and *Soft* Project Management Skills

PMF argued that excellent planning, good project systems, hard work and people with correct qualities were all of equal importance for Project F to achieve success. Similarly PMF believed that it is not necessary to focus on any particular *hard* or *soft* project management issues in the pursuit of project success as all issues are of equal importance. In regard to *hard* and *soft* project management skills, PMA argued that *soft* management skills can be

taught and project managers should not focus on *soft* project management skills more than *hard* skills.

8.5.7 <u>Megaprojects and PBIJVs</u>

Megaprojects

The value of Project F is in excess of USD 1,500 million and PMF considered it as a megaproject, which PMF felt was best described as a project which spreads risk and obtains local knowledge and contacts. PMF considered the culture of construction JVs as being unique and complex to control.

PBIJVs

At the outset of Project F, the main reasons for Company F in having a JV partner for Project F was driven by the legal need to have a local partner and the main risks were that Company F had no prior working relationship with the JV partners who had the ability to potentially wield too much power. PMF confirmed that none of the JV partners were interested if Company F had an ISO 9000 series accreditation and was not aware of any foreign competitors having such an accreditation and noted that during the course of Project F, employees of Company F did not attend any seminars related with the topic. PMF believed that the main reason JV partner chose to partner with Company F was due to the perceived ability of Company F to attract new financial organisations to occupy the development upon completion with a view to becoming the main financial centre in Asia.

PMF confirmed that the JV negotiation did not involve senior management who actually work on Project F and did not know if the JV negotiations included discussions about communication, coordination, information, integration and trust. PMF argued that the most prevalent JV partnering risks for Company F on Project F were the differences between East and West culture and beliefs and differing corporate cultures. PMF considered that the relationship between Company F and other JV partners was good. PMF does not believe that a majority shareholder on a JV assumes control of a project

with their own company interests at the fore rather than that of the project. PMF was not aware of any success stories of similar JVs in Korea. However, PMF noted that Company F is pursing successful marketing and leasing to improve the chances of success for Project F.

8.5.8 Multi-National Teams

People and Culture

PMF considered that the study of culture is relevant to the project management process and awareness of such is helpful to project managers in the pursuit of project success, however, PMF did not believe that non-compliance with local national culture would necessarily result in project failure. PMF argued that ambiguity and differences between corporate and national cultures has affected management processes the most on Project F.

Multi-National Project Teams

More than five nationalities are directly involved in Project F with two nationalities based full-time in Korea. PMF confirmed that *"98.5% of staff is all Korean" but "most senior people here are foreigners".* Company F have not employed staff who had previously worked for one of the other JV partners. PMF confirmed that between one to five per cent of the JV personnel on Project F were specialist expatriate knowledge workers. More than 20 companies have provided consultancy services to the JV on Project F where *"the primary consultants were American all pretty much based in New York".* PMF described the Project F team as locally project-based and considered that no one issue related with managing such a project team was more problematical than any other. PMF strongly believed that people on construction projects should be organised to be a fully integrated and cohesive team.

8.5.9 Information, Communication and Coordination

General

For the purposes of communicating, the JV introduced a web-based collaborative PMIS for Project F; other communication tools included a Company e-mail system and CAD. PMF believed that an effective communication system between Company F and JV partners is very important. PMF highlighted the following points to show the communication problems encountered and how he tried to manage the situation:

> *"at the outset it was extremely difficult to get people to volunteer any information, if you asked a question they would answer that question and that's it. They wouldn't give you anymore background to that"*

> *"it could be a language issue also, whereby you don't feel comfortable. They speak English well, but maybe they really don't feel that they speak it that well"*

> *"they understand the words but they don't understand what you're talking about and so the people I have here are all technical people they're all engineers or architects and so aren't that great at the English, but they're good at the job that I want them to do"*

> *"I try to make them feel a little bit more relaxed you know or maybe they initially didn't feel that relaxed working around a foreigner; a lot of them have never worked around a foreigner before"*

PMF considered that evaluation of the performance of key personnel on Project F including that of the project manager is only communicated some of the time, for the purpose of improved service. PMF argued that there was no one particular problematical issue related with managing a dispersed JV project e-team that outweighed another and all were of equal importance. Whilst PMF argued that he had no basic philosophy to handle the

management of dispersed teams and multiple project shareholders, his basic philosophy to manage Project F was by being "*open, candid, honest and firm*".

Documents

Document control on Project F adopted maintenance of records via a web-based collaborative PMIS for JV documents.

8.5.10 Expatriate Life

Personal Data

Section 6.4.2 lists personal data about PMF provided during the screening process. PMF described his core principles for project-based management in Asia as being fair but firm. However, PMF highlighted that these core principles were not self-evident at the outset of working in Asia but evolved over a period of ten years because it became apparent that people in Asia respond to fair honest treatment simply by being open and honest with them.

Nexus between Personal Life and Work Life

It was important for PMF to live with his family during the project-based assignment in Korea and PMF believed that the most challenging aspects of being a project-based expatriate living overseas was his family being apart from the family household and friends back home, having to constantly adjust to their new surroundings and having to accept a nomadic lifestyle. PMF did not believe his family had any particular difficulty settling in Korea. PMF considered the collective trait of his family was being adventurous. PMF considered that maintaining a happy family in-country and managing project-related issues were equally pressurised.

PMF believed that family time could be limited and noted that *"I know that when I was in China; the longer I'm here the more I realize I don't know anything about this country at all because I think one is becoming more educated in the fact that there's so much here; whether you're in Korea,*

China or wherever, that it's almost impossible and plus you're working every day and you're spending 10 or 12 hours a day working you don't have a lot of time to do anything else".

8.5.11 <u>New Ways of Working</u>

Return of Experience – from the Project

PMF believed that the role of project manager on Project F is like that of an American football quarterback and maintained the view that all *hard* and *soft* management-related topics are of equal importance for project success. PMF highlighted that the most problematical issues faced on a regular basis on Project F has been mis-communication between project people and project-related discussions not being recorded in writing. If able to turn back the clock PMF would not set-up the staff organisation differently. PMF managed and lead the project management on the Project by having staff meetings, identifying staff responsibilities and routinely giving staff feedback on their performance.

Return of Experience – from working overseas as a full-time expatriate

PMF argued that it is important to have overseas working experience in any given country prior to actually working in that country as a project manager because experience cannot be substituted and taught in a classroom. In regard to project manager skills, PMF considered that all project-related matters should be handled with the same level of importance to achieve project success. In regard to project manager focus, PMF considered having exemplary professional behaviour on the project, having personable negotiation skills and acceptance that change is inevitable as being the most important.

PMF believed that being aware, having clarity in communication, decisive in decision-making, fair but firm, realistic, flexible, trusting and having an understanding of a situation are the most important *soft* management principles for project managers to have to successfully manage a

construction megaproject in Asia. Conversely, PMF considered that being a champion of one-teaming, collaborative, having cross-cultural awareness, harmonious, non-confrontational, political awareness, simplicity of thought, situational flexibility and being structured were the least important for project managers.

PMF considered that the terms confident, curious, good communicator, open to new challenges, professionally competent, sensible, serious, and social and team player best described the successful Western expatriates in project management positions of which PMF had working knowledge. PMF did not consider individualistic and laid back as good fits.

Looking to the Future

PMF considered that being aware of all matters related with the project, being decisive when making project decisions and being positively committed to the project at all times would be the most important management factors in the future to achieve project success on construction projects in Asia. PMF considered that the most critical areas of mis-management that needs to be addressed to avoid project failure are getting bogged down in minutiae, hiring people based on language rather than position suitability and deviating away from the JV agreement. PMF argued that the most important attributes for a project manager to have are confidence, curious, good communicator, honest, a leader, patient, open to challenges, open-minded, personable, professionally expert and sensible with a management approach that is flexible, dynamic and holistic.

PMF was not aware of another Western company that had proceeded with a second construction-related project in Korea on a JV basis and considered it unlikely that Company F would proceed with another construction-related project in Korea and did not recommend other foreign companies to enter into a JV-related construction project in Korea. Nonetheless, PMF considered that it would not be of any particular benefit to Western project managers to

have a framework to improve project management skills on PBIJV construction megaprojects in Asia. PMF thought that a framework could be useful but argued that *"in development I don't think it works this way because things (snaps fingers) move very quickly all of a sudden. You just kind of jump in to it with both feet and make it work and it just comes with experience to know that even though you come from a Western country or Western environment, Western culture; after all is to be very careful to respect the local culture, local environment. They aren't going to think the same way you do."* However, PMF also argued that ultimately, *"construction is construction, design is design, engineering is engineering, you know; concrete engineering, structural steel engineering, curtain wall engineering doesn't really matter where you're doing it, it's the same".*

PMF has no regrets about his expatriate adventure and offered the following advice to project managers embarking on an expatriate lifestyle – "*be prepared to have your entire life style change; be adaptable; flexible; ready to adjust to new ways of working of doing business; don't be too serious and set in your old ways*".

8.5.12 <u>Summary of Findings</u>

PMF argued that there was a fundamental difference between Western and Asian management styles and over a period of six years had adapted his US management style to accommodate the local ways of working in the pursuit of project success and argued that it is necessary to compromise between Western and Asian management styles. The findings of the analysis of PBIJV success on Project F is shown in Table 8.5 and findings of analysis of the management principles of PMF are shown in Table 8.6.

The following summarises the findings from Case Study Three based on questionnaire responses, observations and interview review on key issues associated with effective management practices on construction mega projects in Asia:

- project success primarily based upon meeting external client requirements, exceeding JV objectives and achieving a coherent project team

- did believe that TQM impacts quality, management, price and cost on the project

- relationship with local JV partner was good

- significant project problems include local contractors deviating away from the agreements and management of remotely-based project consultants

- a major risk was that Company F had no prior experience with the selected JV partner or working in Korea

- important for PM to have prior in-country work experience

- PMF slightly adapted US project management style to suit demands of Korea but did not believe improve chances for project success

- neither the Western or Asian way is the only way to manage

- PM should not focus on *hard* project management skills more than *soft* skills

- not important to have in-house management training

- project management should focus more on the study of national culture.

Table 8.5: Case Study Three: Analysis of PBIJV Success on Project F

	FOREGROUND	BACKGROUND
HARD	local JV partners had ability to potentially wield too much power over foreign partner	in the long-term the Korean government would implement more internationally recognized regulations or legislation in construction
	JVs are unique and complex to control	government involved in project
	JV steering committee	resolution of project issues at JV Board level were problematical
		important for the project manager to have prior working experience in the country
	excellent planning and written agreements	JV negotiations did not include anyone actually working on project and local JV partner deviating away from the JV agreement during the project
	effective communication system with JV partners is very important	project discussions not being recorded in writing
	have staff meetings, identify staff responsibilities and routinely give staff performance feedback	
	employ people with correct qualities with combination of in-house and out-sourced project personnel	local business is conglomerate-based with cartel-based appointments by local JV partner
	project JV reporting systems previously developed by foreign JV partner	local JV partner decision-making processes were slow
	most important for Company to ensure scheduled time for completion maintained and to achieve profit margin	most important for local JV partners are re-negotiating new terms and conditions, agreeing a mutually acceptable JV agreement and achieving profit margin
	ensure quality product is provided	none of the JV partners were interested if partner had ISO 9000 series accreditation
	good project systems	standardisation of reporting systems would improve construction industry
	training of project staff is beneficial to the project	level of training local project personnel in Korea was generally good
SOFT	TQM principles not directly applied by JV	practicing TQM would benefit the JV in regard to time, cost and quality
	JV leadership should empower its people	
	project staff focused, consensual and harmonious	personal work-related networking beyond project boundaries
	try to get a fully integrated and cohesive project team	megaprojects characterised by spreading risk, obtain local knowledge and contacts
	most prevalent JV partnering risks were differences between culture and beliefs and differing corporate cultures	no cultural training for foreigners
	pursue direct personal contact between JV partners	organisational working relationship matrix in nature
	project communications in English	majority of JV staff are Korean
	web-based collaborative PMIS	management of personnel and consultants remotely-based outside of Korea was problematical

Table 8.6: Case Study Three: Analysis of Management Principles of PMF

		FOREGROUND	BACKGROUND
HARD		basic management philosophy of local JV management staff is to be structured	
		excellent management skills with exemplary professional behaviour	problems - do not get bogged down in minutiae, hire people based on language skills and deviate away from the JV agreement
		hold regular project JV meetings	at times felt exasperated if anything was actually agreed in the meetings where the project manager in a JV is like an American football quarterback
		most important factor for project success is excellent planning	
SOFT		focus on both *soft* and *hard* skills with equal importance	hard work
		family being apart from family household and friends, having to adjust to new surroundings and accept a nomadic lifestyle	maintaining a happy family and managing JV equally pressurised
		be aware, clarity in communication, decisive, fair but firm, realistic, flexible, trusting and understanding of situations	dynamic and holistic management style supplemented by a more cooperative style during times of crisis
		positively committed to the project	
		confidence, curious, communicator, honest, a leader, open to challenges, open-minded, personable, professionally expert and sensible	honesty could improve local industry
		accept that change is inevitable	
		flexible, dynamic and holistic management approach	personable negotiation skills
		very important to motivate the project team	team motivation not necessary in times of crisis
		JV meeting management style of being structured	JV personnel expect the project manager to be trustworthy, set realistic goals, be a good listener and offer praise when praise is due
		be aware of differences between Western and Asian management styles	excellent business and political contacts more important than excellent management skills in Asian culture
		has become accustomed to local work practices although does not believe provided better chance for project success	slightly adapted management style to suit local demands
		understanding the local ways of working and communicating with local people have been the most challenging aspects	personal networks, face and local business practices were the three most positive aspects of local culture
		study the local culture as it is relevant to the project management process	non-compliance with national culture not necessarily result in project failure

8.6   SUMMARY

This chapter established a Primary Framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, which is based upon the key dimension matrices for project success in construction as identified in Chapter Seven. This chapter also presented findings of the three case studies, which further explored the management thoughts and practices of the selected project managers on construction PBIJVs in Asia working on megaprojects. It presented the background information of the company, JV, industry, management, environment, Asian and Korean ways, culture, TQM, *hard* and *soft* management skills, megaprojects, PBIJVs, people, multi-national teams, communication, expatriate life, return of experience and looking to the future. Simple observations, questionnaires, interviews and documentation were used as sources from which data were collected.

The Conceptual Framework was based upon the literature review in Chapter Two through to Five and was further developed based upon an analysis of the stage one screening process questionnaire responses and interviews. The resultant Primary Framework was presented in the form of a high-rise building complex, to maintain an industry-related reference, comprising of piles, foundations, plant rooms, vertical transportation, basement and tower floors and a roof. The Primary Framework shall be further developed based upon the findings of the case studies in the form of an Intermediate Framework.

Case Study One involved a UK senior manager with 22 years of expatriate experience and married to a Korean, PMA, who worked for a US property development company as the lead company in a JV with a Korean *chaebol* partner to construct a megaproject in Korea. There was local government involvement in the project but no direct national government involvement. There were signed agreements between the JV partners and project

reporting systems were bespoke and jointly developed. The local partner was defensive in JV discussions and although not the lead company, the local partner took key positions in the JV from the start of the project and as designated project contractor was interested in maximising construction profits rather than JV development profits. The JV project team was geographically dispersed but the in-country team people were in the main Korean. The management of remotely-based consultants were problematical with conference calls instead of face-to-face meetings.

PMA had a holistic management style but had adapted his management style to suit local demands and believed there should be more focus on *soft* rather than *hard* project management skills. PMA did not think that either the Western or Asian way is the only way to manage and did not consider it was important for a project manager to have prior in-country work experience. Project communications were in English and Korean. PMA believed that the *inside society* in Korea was relationship-based and heavily deferential to family seniority. PMA also believed it was important to develop a fully integrated, cohesive and culturally aware project team, however, significant problems were encountered on the project including JV partner non-compliance with agreements and project people not following PM directives due to cultural need to defer to senior Korean personnel. PMA considered that it would be of benefit to Western project managers to have a framework to improve project management skills on PBIJV construction megaprojects in Asia.

Case Study Two involved a UK senior manager with 35 years of expatriate experience and married to a Turk from the border of Europe and Asia, PME, who worked as the lead representative for an alliance of South-East Asian property development companies to construct a megaproject in Korea. There was local government involvement in the project but no direct national government involvement. Construction was by a contractor from a major Korean *chaebol*. There were signed agreements between the JV partners

and project reporting systems were bespoke and jointly developed. The JV project team was geographically dispersed but the in-country team people were in the main Korean. The management of remotely-based JV personnel and consultants was problematical with conference calls instead of face-to-face meetings.

PME had a holistic management style but had adapted his management style to suit local demands and believed *hard* and soft project management-related topics had equal importance. PME did not think that either the Western or Asian way is the only way to manage and did not consider it was important for a project manager to have prior in-country work experience. Project communications were in English and Korean. PME believed it was important to develop a fully integrated and cohesive project team; however, significant problems were encountered on the project mis-communication between project people not following PM directives. PME considered that it would not be of benefit to Western project managers to have a framework to improve project management skills on PBIJV construction megaprojects in Asia.

Case Study Three involved a US senior manager with 32 years of expatriate experience and married to an American, PMF, who worked for a US property development company as the lead company in a JV with a Korean local government partner to construct a megaproject in Korea. There was no direct national government involvement. There were signed agreements between the JV partners and project reporting systems were bespoke and developed by the parent company of the foreign partner. Construction was by contractors from major Korean *chaebols*. The JV project team was geographically dispersed but the in-country team people were in the main Korean. The management of remotely-based consultants was problematical.

PMF had a dynamic and holistic management style but had slightly adapted his management style to suit local demands and believed *hard* and soft project management-related topics had equal importance. PMF did not think

that either the Western or Asian way is the only way to manage and considered it was important for a project manager to have prior in-country work experience. Project communications were in English and Korean. PMF believed it was important to develop a fully integrated and cohesive project team. PMF considered that it might be useful to have a framework to improve project management skills on PBIJV construction megaprojects in Asia but was not completely convinced of its usefulness to Western project managers due to the fast nature of decision-making in the business.

The within-case analysis and implications of the findings from the three case studies presented in this chapter are now subject to a cross-case analysis, which is presented in Chapter Nine.

CHAPTER NINE – THEME IDENTIFICATION AND CROSS-CASE ANALYSIS

9.1 INTRODUCTION

The theoretical background regarding the project management of PBIJVs on complex construction megaprojects in Asia was provided in Chapter Two through Five. The research methodology was established in Chapter Six together with details of the research approach, which comprised of three stages. The Conceptual Framework was presented in Chapter Seven together and the details and results of the screening process interviews in Chapter Six as part of Stage One of the research process. The Primary Framework was presented in Chapter Eight together with the details and findings of the first phase, within-case analysis; of Stage Two of the research approach was presented.

This chapter comprises of an analysis of the findings from the three case studies presented in Chapter Eight. The dominant themes for the analysis are first identified. This is then followed by a detailed cross-case analysis of the investigation of project manager practices to deliver project success on PBIJVs with multi-cultural teams on construction megaprojects in Asia under the dominant themes. A summary of findings from the case studies and implications of the findings are then presented.

9.2 THEME IDENTIFICATION

9.2.1 Introduction

The case studies were based upon ten of the eleven literature review categories shown in Table 7.3 and the emerging dominant groups shown in Table 7.8. The category "Thai way" was not considered as the selected case studies only involved project managers on construction projects in Korea. These categories and emerging dominant groups are developed in this

section into dominant themes for the cross-case analysis of the case studies findings which seek to address the research questions posed in Section 1.4. An analysis of the within-case studies, presented in Chapter Eight, resulted in the identification of the following five dominant themes:

- Asian variables;
- managing IJV projects;
- dispersed people / one-teaming;
- family dynamic; and
- visions for the future.

9.2.2 <u>Theme Identification</u>

Each of the five dominant themes has sub-themes of *hard* and *soft* management and the findings are summarised into the following categories and sub-categories:

- PBIJV
    - key success factors
    - main problems
    - main risks
- JV Lead Project Manager
    - the profile of a project manager
    - manager philosophies for Asia
    - project management focus
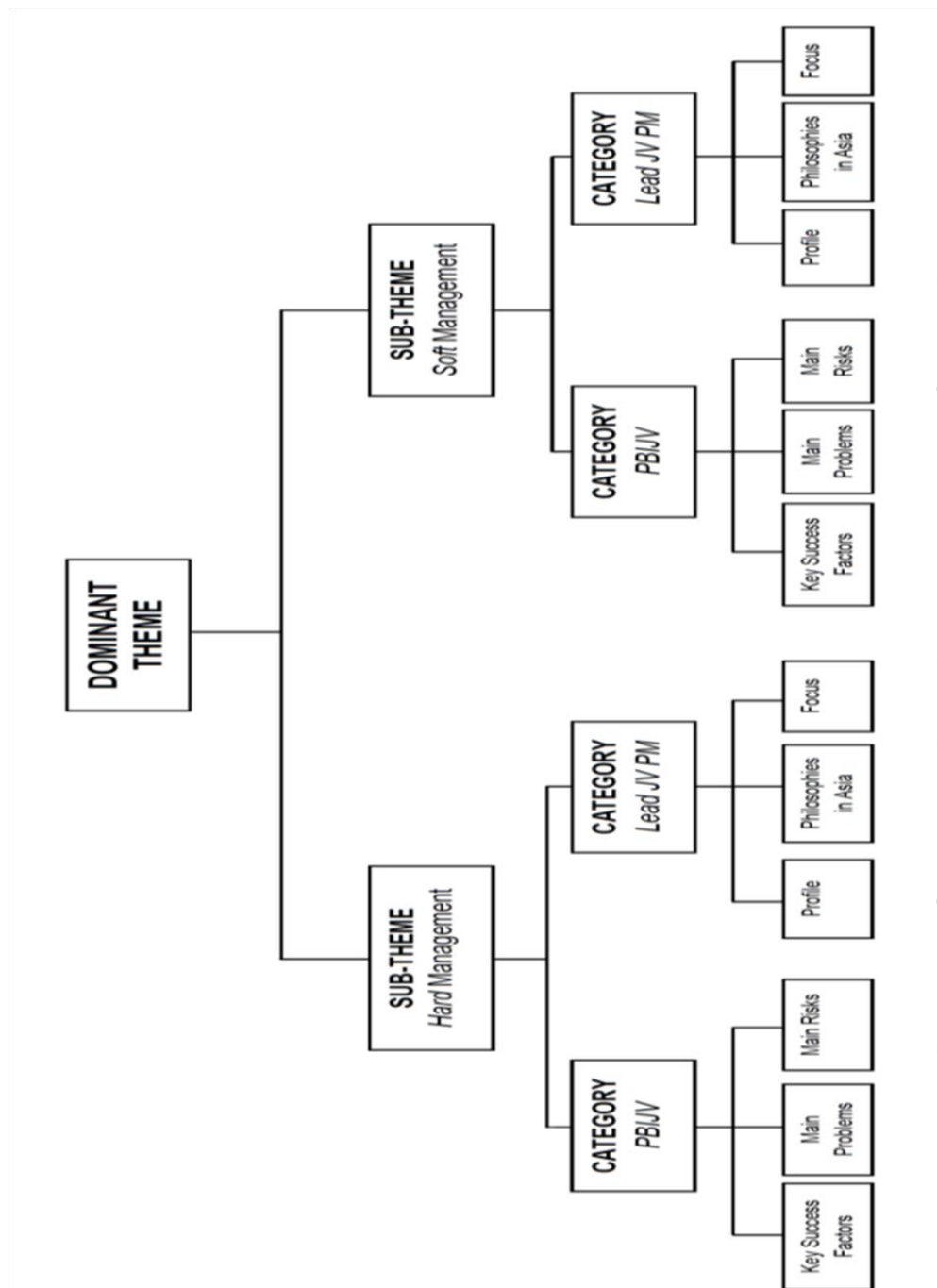
Figure 9.1: Structure of Dominant Themes and Categories

Figure 9.1 shows the structure of each dominant theme, sub-themes, categories and sub-categories, whereas Tables 9.1 through to 9.6 summarise the findings of the within-case studies for PMA, PME and PMF.

Table 9.1: Case Study One: Analysis of dominant themes for Project A

Theme	Sub-themes	PBIJV		
		Key Success Factors	Main Problems	Main Risks
Asian variables	hard	· handing over management control to the local JV partner	· low profitability, excess capacity and a low level of technology in local industry · JV partner non-compliance with agreements · not enough internationally recognised regulations and legislation in construction in Korea	· Company A had no prior working relationship with the JV partners who could potentially wield too much power
	soft	· biggest cultural influences on local way of working are local business relationships, personal networks and non-confrontation	· understanding the local ways of working and communicating with the local people on Project A have been the most challenging aspects of this overseas assignment · ambiguity	· politics · differences between East and West culture and beliefs
Managing IJV projects	hard	· two of the three most important criteria for determining project success was completing on time and within budget · excellent planning	· resolution of issues at JV Board level · management of remotely-based project consultants · non-standardisation of reporting systems · project people not following project manager directives · relationship between Company A and other JV partners was defensive and geared to maximise profit	· client inability to pay · inexperienced client
	soft	· TQM · maintaining a respectful interaction between JV partners at all levels	· differences between corporate cultures	· differing corporate cultures · differing corporate ways of working
Dispersed people / One-teaming	hard	· clarity of direction to all parts of the JV · training of technical topics to the local staff	· having conference calls instead of face to face meetings	
	soft	· one of the three most important criteria for determining project success was achieving a one-teaming philosophy within the JV team · motivate the project team · the development of an integrated culturally aware project team	· achieving trust and open communication between all of the project team	
Family dynamic	hard			
	soft		· maintaining a happy family in-country and managing project-related issues were equally pressurised	
Visions for the future	hard			
	soft			

Table 9.2: Case Study One: Analysis of dominant themes for PMA

Theme	Sub-theme	JV Lead Project Manager		
		The Profile of a Project Manager	Manager Philosophies for Asia	Project Management Focus
Asian variables	*hard*	· not important to have overseas working experience in any given country prior to actually working in that country as a project manager	· neither the Western way or the Asian way is the only way to manage	· since the 2007 credit crunch has been mainly on downsizing, which is closely followed by reduction of costs and slow down of construction activity
	soft	· adapted his UK project management style to suit the demands of managing in Korea but did not believe local work practices provide a better chance for project success	· complexity, hardworking, rigidity, structured and being a team player best describe the basic management philosophies of the local JV management staff	· being tolerant of other cultures
	hard	· one of the most important attributes for a project manager to have is being cutomer-centric	· the most critical areas of mis-management that needs to be addressed to avoid project failure are pandering to the needs of your company rather than the project, deviating away from the JV agreement and allowing a JV partner to take all key staff positions at the outset of the project · current management style as that of a structured facilitator · being fair but firm and having to know everything as the devil is in the detail	· signed contract agreements · cost reporting
Managing IJV projects	*soft*	· the most important attributes for a project manager to have are being adaptable, honest, open to challenges, open-minded and culturally sensitive with a management approach that is flexible and holistic · the terms confident, good communicator, open to new challenges, professionally competent, sensible and team player best described the successful Western expatriates in project management · being aware, collaborative, fair but firm, politically astute, realistic, having situational flexibility and being structured are the most important *soft* management principles for project managers	· holistic management style to adequately manage the external environment · project managers should not focus on *hard* project management skills more than *soft* skills	· PMA considered that flexibility of thought to adapt to any given project situation and interacting in a collaborative way with all project-related people were currently the most important management factors to achieve project success
Dispersed people / One-teaming	*hard*		· important to have in-house management training	· ensuring clarity of direction to all parts of the JV
	soft			· developing integrated culturally aware JV teams
Family dynamic	*hard*			
	soft	· married to a Korean		
Visions for the future	*hard*			
	soft	· flexibility to adapt to any given project situation and being aware of all matters related with the project would be the most important management factors in the future	· acceptance that change is inevitable	· study of national culture

Table 9.41: Case Study Two: Analysis of dominant themes for Project E

Theme	Sub-themes	Key Success Factors	Main Problems	Main Risks
			PBIJV	
Asian variables	hard	· re-negotiating project finance to proceed with the project to improve the chances of success	· low profitability, excess capacity and a low level of technology · not enough internationally recognised regulations and legislation in construction in Korea	· local partners have majority ownership of the JV
	soft	· biggest cultural influences on local way of working are trust, face and local business relationships	· the most challenging aspects of working overseas for PME were communicating with the local people on Project E and understanding the local ways of working	
Managing IJV projects	hard	· one of the three most important criteria for determining project success was exceeding JV project objectives · excellent planning, good project systems and hard work are all of equal importance · project manager having excellent management skills	· the management of remotely-based project consultants closely followed by the management of JV partner project personnel · project people not following project manager directives · relationship between Company E and other JV partners was defensive and geared to maximise profit	· client inability to pay · inexperienced client · technical failure in the construction process
	soft		· achieving clarity of communication	· differing corporate cultures · differing corporate ways of working
Dispersed people / One-teaming	hard	· two of the three most important criteria for determining project success was achieving a coherent working JV project team and achieving a one-teaming philosophy within the JV project team · motivate the project team · people with correct qualities	· having conference calls instead of face to face meetings · achieving trust between all of the project team · mis-communication between project people · achieving a team spirit within the project team, fragmented discussions with language translations	
	soft			
Family dynamic	hard	· very important for PME to live with his family during the project-based assignment in Korea	· PME considered that maintaining a happy family in-country and managing project-related issues were equally pressurised · PME believed that the most challenging aspect of being a project-based expatriate living overseas was for his family having to constantly adjust to their new surroundings	
	soft		· main difficulties encountered by PME's family to settle in Korea were the language, culture in the way the Korean family and work life are separated and distance from the extended family	
Visions for the future	hard			
	soft			

Table 9.42: Case Study Two: Analysis of dominant themes for PME

Theme	Sub-themes	The Profile of a Project Manager	JV Lead Project Manager	
			Manager Philosophies for Asia	Project Management Focus
Asian variables	*hard*	· not important to have overseas working experience in any given country prior to actually working in that country as a project manager	· neither the Western way or the Asian way is the only way to manage	· since the 2007 credit crunch has been the reduction of costs, which is followed by a slowdown of construction activity and increasing efficiency
	soft	· adapted his UK project management style to suit the demands of managing in Korea and believed such provided a better chance to achieve project success	· being non-confrontational, non-ambiguous, simple,consensual, hardworking, rigid, un-structured and ethical best describe the basic management philosophies of the local JV management staff	
	hard	· PME considered that all project-related matters should be dealt with the same level of importance to achieve project success	· the most critical areas of mis-management that needs to be addressed to avoid project failure are not hiring people based on second language ability but on position suitability, not pandering to the needs of your company rather than the project and not allowing a JV partner to take key staff agreement and allowing a JV partner to take all key staff positions at the outset of the project · current management style is that of a facilitator · most important *hard* project management issues are project scheduling, project systems and project and JV business plans	
Managing IJV projects	*soft*	· the most important attributes for a project manager to have are being open-minded, patient and adaptable with a management approach that is dynamic and flexible · the terms confident, good communicator, open to new challenges, professionally competent and sensible best described the successful Western expatriates in project management · being aware, clear in communicating, diligent, fair but firm, hardworking, realistic, having situational flexibility, being structured and understanding situations are the most important *soft* management principles for project managers	· all *soft* project management issues were of equal importance · a more holistic management style to adequately manage the external environment · hard and soft management-related topics are of equal importance for project success	· all project-related matters should be dealt with the same level of importance to achieve project success
Dispersed people / One-teaming	*hard*		· important to have in-house management training	· maintain regular contact with project staff
	soft		· create an open environment to share problems · be flexible to encourage the team to ask questions and take ownership of their duties · properly research and listen to the issues	
Family dynamic	*hard*			
	soft	· PME considered the collective traits of his family were being adventurous and inquisitive		
Visions for the future	*hard*	· being positively committed to the project at all times, decisive when making project decisions and ensuring that the project team is technically well-trained would be the most important management factors in the future		
	soft			· study of national culture

Table 9.43: Case Study Three: Analysis of dominant themes for Project F

Theme	Sub-themes	Key Success Factors	PBIJV	
			Main Problems	**Main Risks**
Asian variables	*hard*	· pursuing successful marketing and leasing to improve the chances of success · relationship between Company F and other JV partners was good	· not enough internationally recognised regulations and legislation in construction in Korea · deviating away from the JV agreement	· Company F had no prior working relationship with the JV partners who had the ability to potentially wield too much power
	soft	· biggest cultural influences on local way of working are personal networks, *face* and local business relationships	· ambiguity	· politics · differences between East and West culture and beliefs
Managing IJV projects	*hard*	· two of the three most important criteria for determining project success was by meeting external client requirements and exceeding JV project objectives · excellent planning, good project systems and hard work were all of equal importance · project manager having excellent management skills	· resolution of issues at JV Board level · management of remotely-based project consultants · non-standardisation of reporting systems · no one issue related with managing such a project team was more problematical than any other · getting bogged down in minutiae	· reduced profit margin with loss of profit · delay in project completion
	soft		· differences between corporate and national cultures	· differing corporate cultures
Dispersed people / One-teaming	*hard*	· one of the three most important criteria for determining project success was achieving a coherent working JV project team	· hiring people based on language rather than position suitability	
	soft	· people with correct qualities · motivate the project team but did not consider it necessary to especially motivate the project team during difficult economic times		
Family dynamic	*hard*	· important for PMF to live with his family during the project-based assignment in Korea	· PMF considered that maintaining a happy family in-country and managing project-related issues were equally pressurised · PMF believed that the most challenging aspects of being a project-based expatriate living overseas was his family being apart from the family household and friends back home, having to constantly adjust to their new surroundings and having to accept a nomadic lifestyle	
	soft		· PMF did not believe his family had any particular difficulty settling in Korea	
Visions for the future	*hard*			
	soft			

Table 9.44: Case Study Three: Analysis of dominant themes for PMF

Theme	Sub-themes	The Profile of a Project Manager	JV Lead Project Manager — Manager Philosophies for Asia	Project Management Focus
Asian variables	hard	· important to have overseas working experience in any given country prior to actually working in that country as a project manager	· neither the Western way or the Asian way is the only way to manage	· since the 2007 credit crunch has been mainly on reducing costs, increasing efficiency and improving product and service quality
	soft	· slightly adapted his US project management style to suit the demands of managing in Korea but did not believe local work practices provide a better chance for project success but felt it was necessary to compromise between Western and Asian management styles	· complexity, hardworking, rigidity, structured and being a team player best describe the basic management philosophies of the local JV management staff	
	hard	· the most important attributes for a project manager to have include being professionally expert	· the most critical areas of mis-management that needs to be addressed to avoid project failure are getting bogged down in minutiae, hiring people based on language rather than position suitability and deviating away from the JV agreement · current management style is that of being structured · core principle of being fair but firm · honesty, honesty, honesty	· PMF considered that being aware of all matters related with the project, being decisive when making project decisions and being positively committed to the project at all times were currently the most important management factors to achieve project success
Managing IJV projects	soft	· the most important attributes for a project manager to have are confidence, curious, good communicator, honest, a leader, patient, open to challenges, open-minded, personable and sensible with a management approach that is flexible, dynamic and holistic · the terms confident, curious, good communicator, open to new challenges, professionally competent, sensible, serious, social and team player best described the successful Western expatriates in project management · being aware, having clarity in communication, decisive in decision-making, fair but firm, realistic, flexible, trusting and having an understanding of a situation are the most important *soft* management principles for project managers	· holistic management style to adequately manage the external environment · project managers should not focus on hard project management skills more than soft skills · all soft project management issues were of equal importance	· all project-related matters should be handled with the same level of importance to achieve project success · not necessary to focus on any particular hard or soft project management issues in the pursuit of project success as all issues are of equal importance · having personable negotiation skills
Dispersed people / One-teaming	hard		· not important to have in-house management training	
	soft			
Family dynamic	hard			
	soft	· PMF considered the collective trait of his family was being adventurous		
Visions for the future	hard	· being aware of all matters related with the project, being decisive when making project decisions and being positively committed to the project at all times would be the most important management factors in the future		
	soft		· acceptance that change is inevitable	· study of national culture

9.3 CROSS-CASE ANALYSIS

9.3.1 <u>Introduction</u>

This section of the thesis tabulates the findings of the cross-case analysis of the within-case study findings summarised in Tables 9.1 through to 9.6 for Case Study One (C1), Case Study Two (C2) and Case Study Three (C3).

9.3.2 <u>Cross-case analysis</u>

Each of the five dominant themes derived from the within-case analysis also have sub-themes of *hard* and *soft* management and summarised the findings into the following two categories and six sub-categories:

- PBIJV
    - o key success factors
    - o main problems
    - o main risks
- JV Lead Project Manager
    - o the profile of a project manager
    - o manager philosophies for Asia
    - o project management focus

Tables 9.7 through to 9.12 show the results of the cross-case comparison of the dominant themes for the three case studies.

Table 9.13: Cross-case comparisons of dominant themes – key PBIJV success factors

Theme	Sub-themes	Key Success Factors	C1	C2	C3
Asian variables	*hard*	· handing over management control to the local JV partner	✕		
		· re-negotiating project finance to proceed with the project to improve the chances of success		✕	
		· pursuing successful marketing and leasing to improve the chances of success			✕
		· relationship between Company and other JV partners was good			✕
	soft	· biggest cultural influences on local way of working:			
		∗ *face*		✕	✕
		∗ local business contacts		✕	
		∗ local business relationships	✕		✕
		∗ personal networks	✕		✕
		∗ non-confrontation	✕		
		∗ trust		✕	
Managing IJV projects	*hard*	· the three most important criteria for determining project success include:			
		∗ completing on time and within budget	✕		
		∗ exceeding JV project objectives		✕	✕
		∗ meeting external client requirements			✕
		· excellent planning	✕	✕	✕
		· good project systems and hard work		✕	✕
		· project manager having excellent management skills		✕	✕
	soft	· TQM	✕		
		· maintaining a respectful interaction between JV partners at all levels	✕		
Dispersed people / One-teaming	*hard*	· clarity of direction to all parts of the JV	✕		
		· training of technical topics to the local staff	✕		
	soft	· the three most important criteria for determining project success include:			
		∗ achieving a coherent working JV project team		✕	✕
		∗ achieving a one-teaming philosophy within the JV team	✕	✕	
		· motivating the project team	✕	✕	✕
		· development of an integrated culturally aware project team	✕		
		· people with correct qualities		✕	✕
Family dynamic	*hard*	· important for PM to live with his family during the project-based assignment in Korea		✕	✕
	soft				

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

Table 9.14: Cross-case comparisons of dominant themes – main PBIJV problems

Theme	Sub-themes	PBIJV Main Problems	C1	C2	C3
Asian variables	*hard*	· low profitability, excess capacity and a low level of technology in local industry	✕	✕	
		· JV partner non-compliance with agreements	✕		
		· not enough internationally recognised regulations and legislation in construction in Korea	✕	✕	✕
		· deviating away from agreements			✕
	soft	· understanding the local ways of working and communicating with the local people on Project have been the most challenging aspects of this overseas assignment	✕	✕	✕
		· everything in Korea is a dichotomy	✕		
		· ambiguity	✕		✕
Managing IJV projects	*hard*	· resolution of issues at JV Board level	✕		✕
		· management of remotely-based project consultants	✕		✕
		· non-standardisation of reporting systems	✕		✕
		· project people not following project manager directives	✕	✕	
		· relationship between Company and other JV partners was defensive and geared to maximise profit	✕	✕	
		· the management of remotely-based project consultants closely followed by the management of JV partner project personnel		✕	
		· no one issue related with managing such a project team was more problematical than any other			✕
		· getting bogged down in minutiae			✕
	soft	· differences between corporate cultures	✕		
		· achieving clarity of communication		✕	
		· differences between corporate and national cultures			✕
Dispersed people / One-teaming	*hard*	· having conference calls instead of face to face meetings	✕	✕	
	soft	· achieving trust and open communication between all of the project team	✕		
		· achieving trust between all of the project team		✕	
		· mis-communication between project people		✕	
		· achieving a team spirit within the project team, fragmented discussions with language translations		✕	
Family dynamic	*hard*	· maintaining a happy family in-country and managing project-related issues were equally pressurised	✕	✕	✕
		· PM believed that the most challenging aspect of being a project-based expatriate living overseas was for his family having to constantly adjust to their new surroundings		✕	
		· PM believed that the most challenging aspects of being a project-based expatriate living overseas was his family being apart from the family household and friends back home, having to constantly adjust to their new surroundings and having to accept a nomadic lifestyle			✕
	soft	· main difficulties encountered by PM's family to settle in Korea were the language, culture in the way the Korean family and work life are separated and distance from the extended family		✕	
		· PM did not believe his family had any particular difficulty settling in Korea			✕

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

Table 9.15: Cross-case comparisons of dominant themes – PBIJV main risks

Theme	Sub-themes	PBIJV Main Risks	C1	C2	C3
Asian variables	hard	· Company had no prior working relationship with the JV partners who could potentially wield too much power	✕		✕
		· local partners have majority ownership of the JV		✕	
	soft	· politics	✕		✕
		· differences between East and West culture and beliefs	✕		✕
Managing IJV projects	hard	· client inability to pay	✕	✕	
		· inexperienced client	✕	✕	
		· technical failure in the construction process		✕	
		· reduced profit margin with loss of profit			✕
		· delay in project completion			✕
	soft	· differing corporate cultures	✕	✕	✕
		· differing corporate ways of working	✕	✕	

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

Table 9.16: Cross-case comparisons of dominant themes – the profile of a project manager

Theme	Sub-theme	The Profile of a Project Manager	C1	C2	C3
Asian variables	hard	· not important to have overseas working experience in any given country prior to actually working in that country as a project manager	✕	✕	
		· important to have overseas working experience in any given country prior to actually working in that country as a project manager			✕
	soft	· adapted his home-based project management style to suit the demands of managing in Korea	✕	✕	✕
		· does not believe local work practices provide a better chance for project success	✕		✕
		· believed local work practices provided a better chance for project success		✕	
Managing IJV projects	hard	· one of the most important attributes for a project manager to have is being cutomer-centric	✕		
		· PM considered that all project-related matters should be dealt with the same level of importance to achieve project success		✕	
		· the most important attributes for a project manager to have include being professionally expert			✕
	soft	· the most important attributes for a project manager to have are:			
		∗ being adaptable	✕	✕	
		∗ confident			✕
		∗ culturally sensitive	✕		
		∗ curious			✕
		∗ good communicator			✕
		∗ honest	✕		✕
		∗ a leader			✕
		∗ open to challenges	✕		✕
		∗ open-minded	✕	✕	✕
		∗ patient		✕	✕
		∗ personable			✕
		∗ sensible			✕

Table 9.10: Cross-case comparisons of dominant themes – the profile of a project manager (Continued)

Theme	Sub-theme	The Profile of a Project Manager	C1	C2	C3
Managing IJV projects	*soft*	management approach that is flexible and holistic			
		ₓ dynamic		×	×
		ₓ flexible	×	×	×
		ₓ holistic	×	×	×
		the terms that best described the successful Western expatriates in project management:			
		ₓconfident	×	×	×
		ₓcurious			×
		ₓgood communicator	×	×	×
		ₓopen to new challenges	×	×	×
		ₓprofessionally competent	×	×	×
		ₓsensible	×	×	×
		ₓserious			×
		ₓsocial			×
		ₓteam player	×		×
		the most important *soft* management principles for project managers are:			
		ₓbeing aware	×	×	×
		ₓclear in communicationg		×	×
		ₓcollaborative	×		
		ₓdecisive in decision-making			×
		ₓdiligent		×	
		ₓfair but firm	×	×	×
		ₓhardworking		×	
		ₓpolitically astute	×		
		ₓrealistic	×	×	×
		ₓhave situational flexibility	×	×	×
		ₓbeing structured	×	×	
		ₓtrusting			×
		ₓunderstanding situations		×	×
Dispersed people /	*hard*				
	soft				
Family dynamic	*hard*				
	soft	PM married to a Korean	×		
		PM considered the collective traits of his family were being adventurous and inquisitive		×	
		PM considered the collective trait of his family was being adventurous			×
Visions for the future	*hard*	the most important management factors in the future:			
		ₓ positively committed to the project at all times		×	×
		ₓ decisive when making project decisions		×	×
		ₓ ensuring that the project team is technically well-trained		×	
	soft	being aware of all matters related with the project			×
		flexibility to adapt to any given project situation and being aware of all matters related with the project would be the most important management factors in the future	×		

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

Table 9.17: Cross-case comparisons of dominant themes – manager philosophies for Asia

Theme	Sub-theme	Project Manager Philosophies for Asia	C1	C2	C3
Asian variables	*hard*	· neither the Western way or the Asian way is the only way to manage	X	X	X
	soft	· the following best describe the basic management philosophies of the local JV management staff:			
		∗ complexity	X		X
		∗ consensual		X	
		∗ ethical		X	
		∗ hardworking	X	X	X
		∗ non-ambiguous		X	
		∗ being non-confrontational		X	
		∗ rigidity	X	X	X
		∗ simplicity		X	
		∗ structured	X		X
		∗ being a team player	X		X
		∗ un-structured		X	
Managing IJV projects	*hard*	· the most critical areas of mis-management that needs to be addressed to avoid project failure are:			
		∗ pandering to the needs of your company rather than the project	X	X	
		∗ deviating away from the JV agreement	X		X
		∗ allowing a JV partner to take all key staff positions at the outset of the project	X	X	
		∗ hiring people based on second language ability but on position suitability		X	X
		∗ getting bogged down in minutiae			X
		· current management style:			
		∗ structured facilitator	X		
		∗ facilitator		X	
		∗ structured			X
		· most important *hard* project management issues:			
		∗ cost reporting	X		
		∗ project scheduling		X	
		∗ project systems		X	
		∗ project and JV business plans		X	
		∗ technical training	X	X	
		∗ all of equal importance			X
		· having to know everything as the devil is in the detail	X		
		· core principle of being fair but firm	X		X
	soft	· holistic management style to adequately manage the external environment	X	X	X
		· project managers should not focus on *hard* project management skills more than *soft* skills	X		X
		· all *soft* project management issues were of equal importance		X	X
		· *hard* and *soft* management-related topics are of equal importance for project success		X	
		· honesty, honesty, honesty			X
Dispersed people / One-teaming	*hard*	· important to have in-house management training	X	X	
		· not important to have in-house management training			X
	soft	· create an open environment to share problems		X	
		· be flexible to encourage the team to ask questions and take ownership of their duties		X	
		· properly research and listen to the issues		X	
Visions for the future	*hard*				
	soft	· acceptance that change is inevitable	X		X

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

Table 9.18: Cross-case comparisons of dominant themes – project management focus

Theme	Sub-theme	Project Management Focus	C1	C2	C3
Asian variables	*hard*	· since the 2007 credit crunch:			
		∗ downsizing, which is closely followed by reduction of costs and slow down of construction activity	✕		
		∗ improving product and service quality			✕
		∗ increasing efficiency		✕	✕
		∗ reduction of costs	✕	✕	✕
		∗ slow down of construction activity	✕	✕	
	soft	· being tolerant of other cultures	✕		
Managing IJV projects	*hard*	· cost reporting	✕		
		· everything			✕
		· project scheduling		✕	
		· signed contract agreements	✕		
	soft	· currently the most important management factors to achieve project success:			
		∗ aware of all matters related with the project			✕
		∗ decisive when making project decisions			✕
		∗ flexibility of thought to adapt to any given project situation	✕		
		∗ interacting in a collaborative way with all project-related people	✕		
		∗ positively committed to the project at all times			✕
		· all project-related matters should be dealt with the same level of importance to achieve project success		✕	✕
		· having personable negotiation skills			✕
Dispersed people / One-teaming	*hard*	· ensuring clarity of direction to all parts of the JV	✕		
		· maintain regular contact with project staff		✕	
	soft	· developing integrated culturally aware JV teams	✕		
Visions for the future	*hard*				
	soft	· study of national culture	✕	✕	✕

C1: Case Study One
C2: Case Study Two
C3: Case Study Three

9.3.3 Cross-case analysis similarities

Introduction

This section presents the cross-case analysis of the similarities between the case study findings, as shown in Tables 9.13 through to 9.18, for each of the five dominant themes detailed in Section 9.2.

Key PBIJV Success Factors

Table 9.13 shows the cross-case comparison of the similarities between the case study findings in regard to the key PBIJV success factors.

Table 9.19: Cross-case comparison of similarities – success factors

Theme	Sub-themes	Key PBIJV Success Factors	C1	C2	C3
Asian variables	*hard*				
	soft	· biggest cultural influences on local way of working:			
		＊ *face*		✕	✕
		＊ local business relationships	✕		✕
		＊ personal networks	✕		✕
Managing IJV projects	*hard*	· the three most important criteria for determining project success include:			
		＊ exceeding JV project objectives		✕	✕
		· excellent planning	✕	✕	✕
		· good project systems and hard work		✕	✕
		· project manager having excellent management skills		✕	✕
	soft				
Dispersed people / One-teaming	*hard*				
	soft	· the three most important criteria for determining project success include:			
		＊ achieving a coherent working JV project team		✕	✕
		＊ achieving a one-teaming philosophy within the JV team	✕	✕	
		· motivating the project team	✕	✕	✕
		· people with correct qualities		✕	✕
Family dynamic	*hard*	· important for PM to live with his family during the project-based assignment in Korea		✕	✕
	soft				

Asian Variables

In the *soft* sub-theme and in regard to the biggest cultural influences on local ways of working, C2 and C3 both considered that *face* was a big influence and C1 and C3 were in agreement that local business relationships and networks were two of the biggest influences. There were no similarities between the case studies for in the *hard* sub-theme.

Managing IJV Projects

In the *hard* sub-theme, the three case studies were in agreement that excellent planning was one of the three most important criteria for determining project success. C2 and C3 agreed that exceeding JV project objectives was another of the most important criteria. C2 and C3 also expressed the same opinions that project managers should have excellent management skills and good project systems and hard work were necessary factors for project success. There were no similarities between the case studies for in the *soft* sub-theme.

Dispersed People / One-teaming

In the *soft* sub-theme, the three case studies were in agreement that motivating the project team was a PBIJV success factor. C2 and C3 also expressed an opinion that people with the correct qualities is also a success factor. C2 and C3 were also in agreement that achieving a coherent working JV project team was one of the three most important criteria for determining project success whereas C1 and C2 agreed that achieving a one-teaming philosophy with the JV team as one of the three most important. There were no similarities between the case studies for in the *hard* sub-theme.

Family Dynamic

In the *hard* sub-theme, C2 and C3 were in accord about the importance to live with the family during the project assignment. C1 did not comment as PMA was permanently based in Korea and had a Korean wife and children. There were no similarities between the case studies for in the *hard* sub-theme.

Summary

The following were the only similarities between each of the case studies for PBIJV success factors:

- excellent planning; and
- motivating the project team.

PBIJV Main Problems

Table 9.14 shows the cross-case comparison of the similarities between the case study findings in regard to the PBIJV main problems.

Asian Variables

In the *hard* sub-theme the three case studies were in agreement that there were not enough internationally recognised regulations and legislation in construction in Korea. C1 and C2 agreed that local construction was beset with low profitability, excess capacity and a low level of technology. In the *soft* sub-theme, the three case studies were in agreement that understanding the

local ways of working and communicating with the local people on the project have been the most challenging aspects on the project. C1 and C3 agreed that ambiguity was a prominent project issue.

Table 9.20: Cross-case comparison of similarities – main problems

Theme	Sub-themes	PBIJV Main Problems	C1	C2	C3
Asian variables	*hard*	· low profitability, excess capacity and a low level of technology in local industry	✕	✕	
		· not enough internationally recognised regulations and legislation in construction in Korea	✕	✕	✕
	soft	· understanding the local ways of working and communicating with the local people on Project have been the most challenging aspects of this overseas assignment	✕	✕	✕
		· ambiguity	✕		✕
Managing IJV projects	*hard*	· resolution of issues at JV Board level	✕		✕
		· management of remotely-based project consultants	✕	✕	✕
		· non-standardisation of reporting systems	✕		✕
		· project people not following project manager directives	✕	✕	
		· relationship between Company and other JV partners was defensive and geared to maximise profit	✕	✕	
	soft	· differences between corporate cultures	✕		✕
Dispersed people / One-teaming	*hard*	· having conference calls instead of face to face meetings	✕	✕	
	soft	· achieving trust between all of the project team	✕	✕	
Family dynamic	*hard*	· maintaining a happy family in-country and managing project-related issues were equally pressurised	✕	✕	✕
		· PM believed that the most challenging aspect of being a project-based expatriate living overseas was for his family having to constantly adjust to their new surroundings		✕	✕
	soft				

<u>Managing IJV Projects</u>

In the *hard* sub-theme, the three case studies were in agreement that management of remotely-based project consultants was the main JV problem. C1 and C3 agreed that resolution of issues at JV Board level and non-standardisation of reporting systems were problematical. C1 and C2 were in agreement that project problems included project people not following project manager directives and the relationship between Company and JV partners was defensive and geared to maximise individual profits rather than collective JV profit. In the *soft* sub-theme, C1 and C3 agreed that a key problem was differences between corporate cultures.

Dispersed People / One-teaming

In the *hard* sub-theme, C1 and C2 believed that a key project problem was having conference calls instead of face to face meetings. In the *soft* sub-theme, C1 and C2 agreed that a key project problem was achieving trust between all of the project team.

Family Dynamic

In the *hard* sub-theme, the three case studies were in agreement that maintaining a happy family in-country and managing project-related issues were equally pressurised. C2 and C3 believed that the most challenging aspect of being a project-based expatriate living overseas was for the family having to constantly adjust to new surroundings. There were no differences between the case studies for in the *soft* sub-theme.

Summary

The following were the only similarities between each of the case studies for main PBIJV problems:

- not enough internationally recognised regulations and legislation in construction in Korea;
- understanding the local ways of working and communicating with the local people on the project have been the most challenging aspects on the project;
- management of remotely-based project consultants; and
- maintaining a happy family in-country and managing project-related issues were equally pressurised.

PBIJV Main Risks

Table 9.15 shows the cross-case comparison of the similarities between the case study findings in regard to the PBIJV main risks.

Table 9.21: Cross-case comparison of similarities – main risks

Theme	Sub-themes	PBIJV Main Risks	C1	C2	C3
Asian variables	*hard*	· Company had no prior working relationship with the JV partners who could potentially wield too much power	✕		✕
	soft	· politics	✕		✕
		· differences between East and West culture and beliefs	✕		✕
Managing IJV projects	*hard*	· client inability to pay	✕	✕	
		· inexperienced client	✕	✕	
	soft	· differing corporate cultures	✕	✕	✕
		· differing corporate ways of working	✕	✕	

Asian Variables

In the *hard* sub-theme, C1 and C3 expressed the same experience where the Company had no prior working relationship with the JV partners who could potentially wield too much power. In the *soft* sub-theme, C1 and C3 agreed that PBIJV main risks included politics and differences between East and West culture and beliefs.

Managing IJV Projects

In the *hard* sub-theme, C1 and C2 agreed that PBIJV main risks included the client inability to pay and an inexperienced client. In the *soft* sub-theme, the three case studies were in agreement that differing corporate cultures was one of the main risks and C1 and C2 agreed that different corporate ways of working was another main risk.

Summary

The following was the only similarity between each of the case studies for PBIJV main risks:

- differing corporate cultures.

Project Manager Profile

Table 9.16 shows the cross-case comparison of the similarities between the case study findings in regard to the profile of each project manager.

Asian Variables

In the *hard* sub-theme, C1 and C2 both believed that it was not important to have overseas experience prior to working overseas as a project manager. In the *soft* sub-theme, the three case studies were in agreement that they had adapted home-based project management style to suit the demands of managing in Korea. However, C1 and C3 agreed that they do not believe local work practices provided a better chance for project success.

Managing IJV Projects

In the *soft* sub-theme, the three case studies were in agreement that being open-minded was one of the most important attributes for a project manager. C1 and C2 agreed that being adaptable was important; C1 and C3 agreed that being honest and open to challenges was important; and C2 and C3 agreed that being patient was important. The three case studies had management approaches that were flexible and holistic. The three case studies were in agreement that confident, good communicators, open to new challenges, professionally competent and sensible best described successful Western expatriates in project management. C1 and C3 agreed that team player was also a description. The three case studies were in agreement that the most important management principles for project managers are being aware, fair but firm, realistic and to have situational flexibility. C2 and C3 agreed that clarity in communicating and understanding situations were also important; and C1 and C2 included being structured. There were no similarities between the case studies in the *hard* sub-theme.

Table 9.22: Cross-case comparison of similarities – PM profile

Theme	Sub-theme	The Profile of a Project Manager	C1	C2	C3
Asian variables	*hard*	· not important to have overseas working experience in any given country prior to actually working in that country as a project manager	✕	✕	
	soft	· adapted his home-based project management style to suit the demands of managing in Korea	✕	✕	✕
		· does not believe local work practices provide a better chance for project success	✕		✕
Managing IJV projects	*hard*				
	soft	· the most important attributes for a project manager to have are:			
		∗ being adaptable	✕	✕	
		∗ honest	✕		✕
		∗ open to challenges	✕		✕
		∗ open-minded	✕	✕	✕
		∗ patient		✕	✕
		· management approach that is flexible and holistic			
		∗ dynamic		✕	✕
		∗ flexible	✕	✕	✕
		∗ holistic	✕	✕	✕
		· the terms that best described the successful Western expatriates in project management:			
		∗ confident	✕	✕	✕
		∗ good communicator	✕	✕	✕
		∗ open to new challenges	✕	✕	✕
		∗ professionally competent	✕	✕	✕
		∗ sensible	✕	✕	✕
		∗ team player	✕		✕
		· the most important *soft* management principles for project managers are:			
		∗ being aware	✕	✕	✕
		∗ clear in communicationg		✕	✕
		∗ fair but firm	✕	✕	✕
		∗ realistic	✕	✕	✕
		∗ have situational flexibility	✕	✕	✕
		∗ being structured	✕	✕	
		∗ understanding situations		✕	✕
Family dynamic	*hard*				
	soft	· PM considered the collective traits of his family were being adventurous and inquisitive		✕	✕
Visions for the future	*hard*	· the most important management factors in the future:			
		∗ positively committed to the project at all times		✕	✕
		∗ decisive when making project decisions		✕	✕
	soft	· being aware of all matters related with the project			✕
		· flexibility to adapt to any given project situation and being aware of all matters related with the project would be the most important management factors in the future	✕		

Family Dynamic

In the *soft* sub-theme, C2 and C3 were in accord that the collective traits of their families were being adventurous and inquisitive. There were no similarities between the case studies for the *hard* sub-theme.

<u>Visions for the Future</u>

In the *hard* sub-theme, C2 and C3 were in accord that the most important management factors in the future included being positively committed to the project at all times and being decisive when making project decisions. There were no similarities between the case studies in the *soft* sub-theme.

<u>Summary</u>

The following were the similarities between each of the case studies for project manager profile:

- adapted home-based project management style to suit the demands of managing in Korea;
- being open-minded was one of the most important attributes for a project manager;
- flexible and holistic management approaches;
- Western project management should be confident, good communicators, open to new challenges, professionally competent and sensible; and
- most important management principles for project managers are being aware, fair but firm, realistic and to have situational flexibility.

Project Manager Philosophy

Table 9.17 shows the cross-case comparison of the similarities between the case study findings in regard to the philosophies of the project managers.

Table 9.23: Cross-case comparison of similarities – PM philosophy

Theme	Sub-theme	Project Manager Philosophies for Asia	C1	C2	C3
Asian variables	*hard*	· neither the Western way or the Asian way is the only way to manage	✕	✕	✕
	soft	· the following best describe the basic management philosophies of the local JV management staff:			
		∗ complexity	✕		✕
		∗ hardworking	✕	✕	✕
		∗ rigidity	✕	✕	✕
		∗ structured	✕		✕
		∗ being a team player	✕		✕
Managing IJV projects	*hard*	· the most critical areas of mis-management that needs to be addressed to avoid project failure are:			
		∗ pandering to the needs of your company rather than the project	✕	✕	
		∗ deviating away from the JV agreement	✕		✕
		∗ allowing a JV partner to take all key staff positions at the outset of the project	✕	✕	
		∗ hiring people based on second language ability but on position suitability		✕	✕
		· current management style:			
		∗ facilitator	✕	✕	
		∗ structured	✕		✕
		· most important *hard* project management issues:			
		∗ technical training	✕	✕	
		· core principle of being fair but firm	✕		✕
	soft	· holistic management style to adequately manage the external environment	✕	✕	✕
		· project managers should not focus on *hard* project management skills more than *soft* skills	✕	✕	✕
		· all *soft* project management issues were of equal importance		✕	✕
Dispersed people / One-teaming	*hard*	· important to have in-house management training	✕	✕	
	soft				
Visions for the future	*hard*				
	soft	· acceptance that change is inevitable	✕		✕

<u>Asian Variables</u>

In the *hard* sub-theme, the three case studies were in agreement that neither the Western way nor the Asian way is the only way to manage. In the *soft* sub-theme, the three case studies were also in agreement that hard working and rigidity best described the basic management philosophies of local JV management staff. C1 and C3 agreed that complexity, structured and team player also best described the basic management philosophies.

Managing IJV Projects

In the *hard* sub-theme and in regard to the most critical areas of mis-management that needs to be addressed to avoid project failure; C1 and C2 agreed that pandering to Company rather than project needs and allowing a JV partner to take all key staff positions at the outset of a project were issues; C1 and C3 agreed that deviating away from the JV agreement was an issue; and C2 and C3 agreed that the hiring of people based on second language ability rather than position suitability was an issue. C1 and C2 had the management style of a facilitator and agreed that technical training was the most important *hard* project management issue. C1 and C3 had a structured management style with the core principle of being fair but firm. In the *soft* sub-theme, the three case studies were in agreement that a holistic management style was required to adequately manage the external environment and project managers should not focus on *hard* project management skills more than *soft* skills. C2 and C3 agreed that all *soft* project management issues were of equal importance.

Asian Variables

In the *hard* sub-theme, the three case studies were in agreement that neither the Western way nor the Asian way is the only way to manage. In the *soft* sub-theme, the three case studies were also in agreement that hard working and rigidity best described the basic management philosophies of local JV management staff. C1 and C3 agreed that complexity, structured and team player also best described the basic management philosophies.

Managing IJV Projects

In the *hard* sub-theme and in regard to the most critical areas of mis-management that needs to be addressed to avoid project failure; C1 and C2 agreed that pandering to Company rather than project needs and allowing a JV partner to take all key staff positions at the outset of a project were issues; C1 and C3 agreed that deviating away from the JV agreement was an issue; and C2 and C3 agreed that the hiring of people based on second language

ability rather than position suitability was an issue. C1 and C2 had the management style of a facilitator and agreed that technical training was the most important *hard* project management issue. C1 and C3 had a structured management style with the core principle of being fair but firm. In the *soft* sub-theme, the three case studies were in agreement that a holistic management style was required to adequately manage the external environment and project managers should not focus on *hard* project management skills more than *soft* skills. C2 and C3 agreed that all *soft* project management issues were of equal importance.

Dispersed People / One-teaming

In the *hard* sub-theme, C1 and C2 agreed that it is important to have in-house management training. There were no similarities between the case studies for the *soft* sub-theme.

Vision for the Future

In the soft sub-theme, C1 and C3 were in agreement that it is necessary to accept that change is inevitable. There were no similarities between the case studies for the *hard* sub-theme.

Summary

The following were the similarities between each of the case studies for project manager philosophies for Asia:

- neither the Western way nor the Asian way is the only way to manage;
- hard working and rigidity best described the basic management philosophies of local JV management staff;
- holistic management style was required to adequately manage the external environment; and
- project managers should not focus on *hard* project management skills more than *soft* skills.

Project Manager Focus

Table 9.18 shows the cross-case comparison of the similarities between the case study findings in regard to the focus of the project managers.

Table 9.24: Cross-case comparison of similarities – PM focus

Theme	Sub-theme	Project Management Focus	C1	C2	C3
Asian variables	*hard*	· since the 2007 credit crunch:			
		∗ increasing efficiency		✕	✕
		∗ reduction of costs	✕	✕	✕
		∗ slow down of construction activity	✕	✕	
	soft				
Managing IJV projects	*hard*				
	soft	· all project-related matters should be dealt with the same level of importance to achieve project success		✕	✕
Visions for the future	*hard*				
	soft	· study of national culture	✕	✕	✕

Asian Variables

In the *hard* sub-theme, the three case studies were in agreement that since the 2007 credit crunch the focus has been on the reduction of costs. In this regard, C2 and C3 agreed that there was also a focus on increasing efficiency and C1 and C2 agreed there was also a focus on slowing down construction activity. There were no similarities between the case studies for the *soft* sub-theme.

Managing IJV Projects

In the *soft* sub-theme, C2 and C3 were in agreement that all project-related issues should be dealt with the same level of importance to achieve project success. There were no similarities between the case studies for in the *hard* sub-theme.

Visions for the Future

In the *soft* sub-theme, the three case studies were in agreement that the study of national culture requires project management focus. There were no similarities between the case studies for the *hard* sub-theme.

Summary

The following were the similarities between each of the case studies for project management focus:

- since the 2007 credit crunch the focus has been on the reduction of costs; and
- the study of national culture.

9.3.4 Cross-case analysis differences

Introduction

This section presents the cross-case analysis of the differences between the case study findings, as shown in Tables 9.19 through to 9.24, for each of the five dominant themes detailed in Section 9.2.

Key PBIJV Success Factors

Table 9.19 shows the cross-case comparison of the differences between the case study findings in regard to the key PBIJV success factors.

Asian Variables

In the *hard* sub-theme, C1 considered that it was ultimately necessary to hand over management control to the local JV partner to achieve project success. Whereas, C2 believed that re-negotiating project finance to proceed further with the project would improve the chances of project success. However, for C3 the relationship between Company and JV partner was good and the original business plan was still in place and pursuit of successful marketing and leasing was on-going to improve the chances of success. In the *soft* sub-theme, C2 believed that local business contacts and trust were the biggest cultural influences on the local way of working, whereas C1 considered such was non-confrontation.

Table 9.25: Cross-case comparison of differences – success factors

Theme	Sub-themes	Key PBIJV Success Factors	C1	C2	C3
Asian variables	hard	· handing over management control to the local JV partner	✕		
		· re-negotiating project finance to proceed with the project to improve the chances of success		✕	
		· pursuing successful marketing and leasing to improve the chances of success			✕
		· relationship between Company and other JV partners was good			✕
	soft	· biggest cultural influences on local way of working:			
		∗ local business contacts		✕	
		∗ non-confrontation	✕		
		∗ trust		✕	
Managing IJV projects	hard	· the three most important criteria for determining project success include:			
		∗ completing on time and within budget	✕		
		∗ meeting external client requirements			✕
	soft	· TQM	✕		
		· maintaining a respectful interaction between JV partners at all levels	✕		
Dispersed people / One-teaming	hard	· clarity of direction to all parts of the JV	✕		
		· training of technical topics to the local staff	✕		
	soft	· development of an integrated culturally aware project team	✕		

Managing IJV Projects

In the *hard* sub-theme, C1 believed that completing on time and within budget were two of three most important criteria for determining project success whereas C3 considered meeting external client requirements was one. In the *soft* sub-theme, C1 argued that TQM implementation and maintaining a respectful interaction between JV partners at all levels were key to project success.

Dispersed People / One-teaming

In the *hard* sub-theme, C1 believed that clarity of direction to all parts of the JV and training of technical topics to the local staff was key to project success. In the *soft* sub-theme, C1 believed that the development of an integrated culturally aware project team were key to project success.

Summary

The case studies had expressed no similarities in the *hard* sub-themes for Asian variables and dispersed people/one-teaming, and the *soft* sub-theme for managing IJV projects. In regard to the Asian variables the case studies

had differing levels of JV issues from major to virtually none and this resulted in differences in responses; for dispersed people/one-teaming, only C1 highlighted the need for clarity of direction to all parts of the JV; and for managing IJV projects, only C1 expressed any importance to the implementation of TQM. C1 was also alone in expressing the belief that the development of an integrated culturally aware project team was key to project success.

PBIJV Main Problems

Table 9.20 shows the cross-case comparison of the differences between the case study findings in regard to the PBIJV main problems.

Asian Variables

In the *hard* sub-theme, C1 believed that one of the main problems encountered with the PBIJV was local JV partner non-compliance with agreements whereas for C3 one of the problems was local contractors deviating away from construction contracts. There were no differences between the case studies in the *soft* sub-theme.

Managing IJV Projects

In the *hard* sub-theme, C2 believed that the management of JV partner project personnel was one of the main problems. Whereas, C3 believed that no one issue was more problematical than another although felt that getting bogged down in minutiae should be avoided by project managers. Whilst C1 felt that the devil was in the detail. In the *soft* sub-theme, C2 considered that achieving clarity of communication was a problem and C3 believed that differences between national cultures were a problem.

Table 9.26: Cross-case comparison of differences – main problems

Theme	Sub-themes	PBIJV Main Problems	C1	C2	C3
Asian variables	*hard*	· JV partner non-compliance with agreements	✕		
		· deviating away from agreements			✕
	soft				
Managing IJV projects	*hard*	· the management of remotely-based project consultants closely followed by the management of JV partner project personnel		✕	
		· no one issue related with managing such a project team was more problematical than any other			✕
		· getting bogged down in minutiae			✕
	soft	· achieving clarity of communication		✕	
		· differences between national cultures			✕
Dispersed people / One-teaming	*hard*				
	soft	· achieving open communication between all of the project team	✕		
		· mis-communication between project people		✕	
		· achieving a team spirit within the project team, fragmented discussions with language translations		✕	
Family dynamic	*hard*				
	soft	· main difficulties encountered by PM's family to settle in Korea were the language, culture in the way the Korean family and work life are separated and distance from the extended family		✕	
		· PM did not believe his family had any particular difficulty settling in Korea			✕

Dispersed People / One-teaming

In the *soft* sub-theme, C1 believed that Achieving open communication between all of the project team was a problem, whereas C2 expressed that mis-communication between project people was a problem. C2 also believed that achieving a team spirit within the project team was a problem with fragmented discussions requiring language translations. There were no differences between the case studies in the *hard* sub-theme.

Family Dynamic

In the *hard* sub-theme, C2 was of the opinion that the main difficulties encountered by family in settling in Korea was the language, culture and being far from home, whereas, C3 did not believe there had been any family difficulty to settle in Korea. C1 was already settled and a long-term resident in Korea. There were no differences between the case studies in the *soft* sub-theme.

Summary

The case studies had expressed no similarities in the *soft* sub-theme for family dynamic. C1 was established in Korea; C2 had family issues to settle in Korea and C3 had no particular family issues to settle in Korea. In regard to problems associated with managing IJV projects, C1 believed in understanding the detail of issues whereas C3 did not want to get bogged down in minutiae.

PBIJV Main Risks

Table 9.21 shows the cross-case comparison of the differences between the case study findings in regard to the PBIJV main risks.

Asian Variables

In the *hard* sub-theme, C2 expressed an opinion that the main risk on the project was that local JV partners had a majority ownership of the JV. There were no differences between the case studies in the *soft* sub-theme.

Table 9.27: Cross-case comparison of differences – main risks

Theme	Sub-themes	PBIJV Main Risks	C1	C2	C3
Asian variables	*hard*	· local partners have majority ownership of the JV		✕	
	soft				
Managing IJV projects	*hard*	· technical failure in the construction process		✕	
		· reduced profit margin with loss of profit			✕
		· delay in project completion			✕
	soft				

Managing IJV Projects

In the *hard* sub-theme, C2 believed that technical failure in the construction process was one of the main risks. C3 believed that reduced profit margin and delay in project completion were the main risks. There were no differences between the case studies in the *soft* sub-theme.

Summary

The only case study that raised the risk of having minority JV shareholding as a risk was C2. However, C1 was a majority shareholder whereas the local partner in C3 was local governmental rather than a private company.

Project Manager Profile

Table 9.22 shows the cross-case comparison of the differences between the case study findings in regard to the profile of each project manager.

Asian Variables

In the *hard* sub-theme, C3 believed that it is important to have overseas working experience in any given country prior to actually working in that country as a project manager. In the *soft* sub-theme, C2 believed that local work practices provided a better chance for project success.

Managing IJV Projects

In the *hard* sub-theme, C1 believed that one of the most important attributes for a project manager to have is being customer-centric, whereas, C3 believed being professionally expert was one of the most important attributes. In the *soft* sub-theme, C1 believed that one of the most important attributes for a project manager to have is being culturally sensitive, whereas C3 referred to confident, curious, good communicator, being a leader, personable and sensible. C3 believed that curious, serious and social were some of the terms that best described the successful Western expatriates in project management. In regard to the most important *soft* management principles for project managers, C1 referred to collaborative and politically astute; C2 referred to diligent and hardworking; and C3 referred to decisive in decision-making and trusting.

Family Dynamic

In the *soft* sub-theme, C1 was married to a local person, whereas, C2 and C3 were on long-term project assignments in-country. There were no differences between the case studies in the *hard* sub-theme.

Table 9.28: Cross-case comparison of differences – PM profile

Theme	Sub-theme	The Profile of a Project Manager	C1	C2	C3
Asian variables	*hard*	· important to have overseas working experience in any given country prior to actually working in that country as a project manager			×
	soft	· believed local work practices provided a better chance for project success		×	
Managing IJV projects	*hard*	· one of the most important attributes for a project manager to have is being cutomer-centric	×		
		· PM considered that all project-related matters should be dealt with the same level of importance to achieve project success		×	
		· the most important attributes for a project manager to have include being professionally expert			×
	soft	· the most important attributes for a project manager to have are:			
		∗ confident			×
		∗ culturally sensitive	×		
		∗ curious			×
		∗ good communicator			×
		∗ a leader			×
		∗ personable			×
		∗ sensible			×
		· the terms that best described the successful Western expatriates in project management:			
		∗ curious			×
		∗ serious			×
		∗ social			×
		· the most important *soft* management principles for project managers are:			
		∗ collaborative	×		
		∗ decisive in decision-making			×
		∗ diligent		×	
		∗ hardworking		×	
		∗ politically astute	×		
		∗ trusting			×
Family dynamic	*hard*				
	soft	· PM married to a Korean	×		
Visions for the future	*hard*	· the most important management factors in the future:			
		∗ ensuring that the project team is technically well-trained		×	
	soft				

Visions for the Future

In the *hard* sub-theme, C2 believed that one of the most important management factors in the future is ensuring that the project team is technically well-trained. There were no differences between the case studies in the *soft* sub-theme.

Summary

The main difference between the case studies in the *hard* sub-theme for Asian variables was that C3 believed that it is important to have overseas working experience in any given country prior to actually working in that country as a project manager, which was contrary to C1 and C2. The main difference between the case studies in the *soft* sub-theme for Asian variables was that C2 believed that local work practices provided a better chance for project success, which was contrary to C1 and C3. The case studies had expressed no similarities in the *hard* sub-theme for managing IJV projects. C1 believed that one of the most important attributes for a project manager to have is being customer-centric, whereas, C3 believed being professionally expert was one of the most important attributes and C2 all issues the same degree of input. In the soft sub-theme for managing IJV projects, C1 was the only case study to include a cultural element as an important attribute for a project manager.

Project Manager Philosophy

Table 9.23 shows the cross-case comparison of the differences between the case study findings in regard to the philosophies of the project managers.

Asian Variables

In the *soft* sub-theme, C2 believed that consensual, ethical, non-ambiguous, non-confrontational, simplicity and un-structured were some of the terms that best described the basic management philosophies of the local JV management staff. Whereas, both C1 and C3 believed complexity and structured were applicable terms. There were no differences between the case studies in the *hard* sub-theme.

Table 9.29: Cross-case comparison of differences – PM philosophy

Theme	Sub-theme	Project Manager Philosophies for Asia	C1	C2	C3
Asian variables	*hard*				
	soft	· the following best describe the basic management philosophies of the local JV management staff:			
		＊ consensual		✕	
		＊ ethical		✕	
		＊ non-ambiguous		✕	
		＊ being non-confrontational		✕	
		＊ simplicity		✕	
		＊ un-structured		✕	
Managing IJV projects	*hard*	· the most critical areas of mis-management that needs to be addressed to avoid project failure are:			
		＊ getting bogged down in minutiae			✕
		· current management style:			
		＊ structured facilitator	✕		
		＊ facilitator		✕	
		＊ structured			✕
		· most important *hard* project management issues:			
		＊ cost reporting	✕		
		＊ project scheduling		✕	
		＊ project systems		✕	
		＊ project and JV business plans		✕	
		＊ all of equal importance			✕
		· having to know everything as the devil is in the detail	✕		
	soft	· honesty, honesty, honesty			✕
Dispersed people / one-teaming	*hard*	· not important to have in-house management training			✕
	soft	· create an open environment to share problems		✕	
		· be flexible to encourage the team to ask questions and take ownership of their duties		✕	
		· properly research and listen to the issues		✕	

Managing IJV Projects

In the *hard* sub-theme, C3 believed that one of the most critical areas of mis-management that needs to be addressed to avoid project failure is getting bogged down in minutiae. This is contrary to the opinion of C1 in that project management needs to know everything as the devil is in the detail. The current management style of C1 is that of a structured facilitator; for C2 a facilitator; and for C3 being structured. C1 believed that cost reporting was one of the most important hard project management issues, whereas, C2 was of the opinion that project scheduling, project systems and project and JV business plans as most important. C3 was of the view that all issues were of equal importance. In the *soft* sub-theme, C3 had a basic philosophy of "*honesty, honesty, honesty*".

Dispersed People / One-teaming

In the *hard* sub-theme, C3 believed that it is not important to have in-house management training. This is contrary to the views of C1 and C2. In the *soft* sub-theme, C2 had a basic philosophy that included creating an open environment to share problems; being flexible to encourage the team to ask questions and take ownership of duties and to properly research and listen to issues.

Summary

The case studies had expressed no similarities in the *soft* sub-theme for dispersed people/one-teaming. The main difference between the case studies in the *soft* sub-theme for Asian variables was that C2 believed that simplicity and un-structured were some of the terms that best described the basic management philosophies of the local JV management staff, whereas, both C1 and C3 believed complexity and structured were applicable terms. The main difference between the case studies in the *hard* sub-theme for managing IJV projects was that C1 believed in having to know everything as the devil is in the detail, whereas, C3 did not want to get bogged down in minutiae.

Project Manager Focus

Table 9.24 shows the cross-case comparison of the differences between the case study findings in regard to the focus of the project managers.

Asian Variables

In the *hard* sub-theme, one of the actions taken by C1 due to the 2007 credit crunch was to focus on downsizing operations, whereas, C2 had suspended work and C3 focused on providing an improved product and service quality. In the *soft* sub-theme, C1 believed that project management need to focus on being tolerant of other cultures.

Table 9.30: Cross-case comparison of differences – PM focus

Theme	Sub-theme	Project Management Focus	C1	C2	C3
Asian variables	*hard*	· since the 2007 credit crunch:			
		∗ downsizing	X		
		∗ improving product and service quality			X
	soft	· being tolerant of other cultures	X		
Managing IJV projects	*hard*	· cost reporting	X		
		· everything			X
		· project scheduling		X	
		· signed contract agreements	X		
	soft	· currently the most important management factors to achieve project success:			
		∗ aware of all matters related with the project			X
		∗ decisive when making project decisions			X
		∗ flexibility of thought to adapt to any given project situation	X		
		∗ interacting in a collaborative way with all project-related people	X		
		∗ positively committed to the project at all times			X
		· having personable negotiation skills			X
Dispersed people / One-teaming	*hard*	· ensuring clarity of direction to all parts of the JV	X		
		· maintain regular contact with project staff		X	
	soft	· developing integrated culturally aware JV teams	X		

Managing IJV Projects

In the *hard* sub-theme, C1 believed that focus is required on cost reporting and signed contract agreements. C2 believed focus should be on project scheduling and C3 believed a focus is required on everything. In the *soft* sub-theme, C1 showed that the most important management factors to achieve project success were flexibility of thought to adapt to any given project situation and interacting in a collaborative way with project-related people. For C3 these factors were to be aware of all matters related with the project, being decisive when making project decisions and being positively committed to the project at all times.

Dispersed People / One-teaming

In the *hard* sub-theme, C1 believed that ensuring clarity of direction to all parts of the JV required focus and C2 showed that focus was on maintaining regular contact with project staff. In the *soft* sub-theme, C1 believed that developing integrated culturally aware JV teams was the main focus.

Summary

The case studies had expressed no similarities in the dispersed people/one-teaming theme and the *hard* sub-theme for managing IJV projects. The main difference between the case studies in the *hard* sub-theme for managing IJV projects is that C1 is focused on cost reporting and contract agreements; C2 is focused on project scheduling; and C3 is focused on everything.

9.3.5 Cross-case analysis of findings

Introduction

This section presents the cross-case analysis of the case study findings, as shown in Tables 9.25 through to 9.31, for each of the five dominant themes detailed in Section 9.2. The analysis done for this part of analysis of the case study findings of the five dominant themes consisted of the scoring system:

Basis for Allocation of Points	*Allocated Points*
C1 agrees with C2 and C3	3
C1 agrees with C2	2
C1 agrees with C3	2
C2 agrees with C3	2
No agreement between C1, C2 and C3	1

Table 9.25 shows the overall allocation of points and scores for each dominant theme and category. Table 9.26 through to 9.31 analyse the results for each category.

Table 9.63: Cross-case analysis of findings

Dominant themes	Sub-themes	Categories														
		PBIJV						JV lead project manager						Totals	
		Key success factors		Main problems		Main risks		profile		philosophies for Asia		focus			
		responses	scores	responses	scores	responses	scores	responses	scores	responses	scores	responses	scores	responses	scores
Asian variables	Hard	4	4	4	7	2	3	2	3	1	3	5	9	18	29
	Soft	6	9	3	6	2	4	3	6	11	18	1	1	26	44
Managing IJV projects	Hard	6	11	8	13	5	7	2	2	16	22	4	4	41	59
	Soft	2	2	3	3	2	5	37	70	5	9	7	8	56	97
Dispersed people / one-teaming	Hard	2	2	1	2					2	3	2	2	7	9
	Soft	5	10	4	4					3	3	1	1	13	18
Family dynamic	Hard	1	2	3	5									4	7
	Soft			2	2			3	3					5	5
Visions for future	Hard							3	5					3	5
	Soft							2	2	1	2	1	3	4	7
Totals	Hard	13	19	16	27	7	10	7	10	19	28	11	15	73	109
	Soft	13	21	12	15	4	9	45	81	20	32	10	13	104	171
	Combined	26	40	28	42	11	19	52	91	39	60	21	28	177	280

Asian Variables

Table 9.26 shows the cross-case analysis of findings for Asian variables. There were responses related with each sub-theme, category and sub-category in this dominant theme. The overall similarity between the case studies was at 55%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'PBIJV' category, 'main problems' and 'main risks', and 'profile' in the 'JV lead project manager' category were of equal highest similarity ranking at 67%. The highest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category was for 'philosophies in Asia' at 100% and in the 'PBIJV' category was for 'main problems' at 58%. The lowest ranking category in the *soft* management sub-theme in the 'lead JV project manager' category' was for 'focus' at 33% and in the 'PBIJV' category was 'key success factors' at 50%. The lowest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category' was for 'profile' at 50% and in the 'PBIJV' category was for 'key success factors' at 33%.

Table 9.32: Cross-case analysis of findings – Asian Variables

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	4	12	33%	9	18	50%
Main problems	7	12	58%	6	9	67%
Main risks	3	6	50%	4	6	67%
Sub-totals (1)	14	30	47%	19	33	58%
JV lead project manager						
Profile	3	6	50%	6	9	67%
Philosophies for Asia	3	3	100%	18	33	55%
Focus	9	15	60%	1	3	33%
Sub-totals (2)	15	24	63%	25	45	56%
TOTALS	29	54	54%	44	78	56%

Managing IJV Projects

Table 9.27 shows the cross-case analysis of findings for managing IJV projects. There were responses related with each sub-theme, category and sub-category in this dominant theme. The overall similarity between the case studies was at 54%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'PBIJV' category, 'main risks' had the highest similarity ranking at 83% and in the 'JV lead project manager' category the highest ranking was for 'profile' at 69%. The highest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category was for 'philosophies in Asia' at 46% and in the 'PBIJV' category was for 'key success factors' at 61%. The lowest ranking category in the *soft* management sub-theme in the 'JV lead project manager' category' was for 'focus' at 38% and in the 'PBIJV' category was for 'key success factors' and 'main problems' both at 33%. The lowest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category' was for 'profile' at 33% and in the 'PBIJV' category was for 'key success factors' and 'main risks' at 47%.

Table 9.33: Cross-case analysis of findings – Managing IJV Projects

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	11	18	61%	2	6	33%
Main problems	13	24	54%	3	9	33%
Main risks	7	15	47%	5	6	83%
Sub-totals (1)	31	57	54%	10	21	48%
JV lead project manager						
Profile	2	6	33%	70	101	69%
Philosophies for Asia	22	48	46%	9	15	60%
Focus	4	12	33%	8	21	38%
Sub-totals (2)	28	66	42%	87	137	64%
TOTALS	59	123	48%	97	158	61%

Dispersed People / One-teaming

Table 9.28 shows the cross-case analysis of findings for dispersed people / one-teaming. There were responses related with each sub-theme, category and 67% of the sub-categories in this dominant theme. The overall similarity between the case studies was at 45%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'PBIJV' category, 'key success factors' had the highest similarity ranking at 67% and in the 'JV lead project manager' category the highest ranking was for 'philosophies in Asia' and 'focus' both at 33%. The highest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category was for 'philosophies in Asia' at 50% and in the 'PBIJV' category was for 'main problems' at 67%. The lowest ranking category in the *soft* management sub-theme in the 'JV lead project manager' category' was also the highest ranking and in the 'PBIJV' category was for 'main problems' at 33%. The lowest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category' was for 'focus' at 33% and in the 'PBIJV' category was for 'key success factors' at 33%.

Table 9.34: Cross-case analysis of findings – Dispersed People/One-teaming

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	2	6	33%	10	15	67%
Main problems	2	3	67%	4	12	33%
Main risks	0	0	0%	0	0	0%
Sub-totals (1)	4	9	44%	14	27	52%
JV lead project manager						
Profile	0	0	0%	0	0	0%
Philosophies for Asia	3	6	50%	3	9	33%
Focus	2	6	33%	1	3	33%
Sub-totals (2)	5	12	42%	4	12	33%
TOTALS	9	21	43%	18	39	46%

Family Dynamic

Table 9.29 shows the cross-case analysis of findings for family dynamic. There were responses related with each sub-theme, category and 25% of the sub-categories in this dominant theme. The overall similarity between the case studies was at 44%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'JV lead project manager' category the highest ranking was for 'profile' at 33%. The highest ranking category in the *hard* management sub-theme in the 'PBIJV' category was for 'main problems' at 42%. The lowest ranking category in the *soft* management sub-theme in the 'JV lead project manager' category' was also the highest ranking. The lowest ranking category in the *hard* management sub-theme in the 'PBIJV' category was for 'key success factors' at 17%.

Table 9.35: Cross-case analysis of findings – Family Dynamic

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	2	12	17%	0	0	0%
Main problems	5	12	42%	0	0	0%
Main risks	0	0	0%	0	0	0%
Sub-totals (1)	7	24	29%	0	0	0%
JV lead project manager						
Profile	0	0	0%	3	9	33%
Philosophies for Asia	0	0	0%	0	0	0%
Focus	0	0	0%	0	0	0%
Sub-totals (2)	0	0	0%	3	9	33%
TOTALS	7	24	29%	3	9	33%

Visions for the Future

Table 9.30 shows the cross-case analysis of findings for visions for the future. There were responses related with each sub-theme, 50% of the categories and 33% of the sub-categories in this dominant theme. The overall similarity between the case studies was at 57%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'JV lead project manager' category the highest ranking was for 'focus' both at 100%. The highest ranking category in the

hard management sub-theme in the 'JV lead project manager' category was for 'profile' at 56%. The lowest ranking category in the *soft* management sub-theme in the 'JV lead project manager' category' was for 'profile' at 33%. The lowest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category' was also the highest ranking.

Table 9.36: Cross-case analysis of findings – Visions for the Future

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	0	0	0%	0	0	0%
Main problems	0	0	0%	0	0	0%
Main risks	0	0	0%	0	0	0%
Sub-totals (1)	0	0	0%	0	0	0%
JV lead project manager						
Profile	5	9	56%	2	6	33%
Philosophies for Asia	0	0	0%	2	3	67%
Focus	0	0	0%	3	3	100%
Sub-totals (2)	5	9	56%	7	12	58%
TOTALS	5	9	56%	7	12	58%

Summary

Table 9.31 shows the cross-case analysis of findings for the collective of all dominant themes. There were responses related with each sub-theme, category and sub-categories. The overall similarity between the case studies was at 53%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme, where in the 'PBIJV' category, 'main risks' had the highest similarity ranking at 75% and in the 'JV lead project manager' category the highest ranking was for 'profile' at 60%. The highest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category was for 'philosophies in Asia' at 49% and in the 'PBIJV' category was for 'main problems' at 56%. The lowest ranking category in the *soft* management sub-theme in the 'JV lead project manager' category' was 'focus' at 43% and in the 'PBIJV' category was for 'main problems' at 42%. The lowest ranking category in the *hard* management sub-theme in the 'JV lead project manager' category' was for 'focus' at 45% and in the 'PBIJV' category was for 'main risks' at 48%.

Table 9.37: Cross-case analysis of findings – Summary

Categories	Hard			Soft		
	Scores	Maximum score	Similarity %	Scores	Maximum score	Similarity %
PBIJV						
Key success factors	19	39	49%	21	39	54%
Main problems	27	48	56%	15	36	42%
Main risks	10	21	48%	9	12	75%
Sub-totals (1)	56	108	52%	45	87	52%
JV lead project manager						
Profile	10	21	48%	81	135	60%
Philosophies for Asia	28	57	49%	32	60	53%
Focus	15	33	45%	13	30	43%
Sub-totals (2)	53	111	48%	126	225	56%
TOTALS	109	219	50%	171	312	55%

9.4   SUMMARY OF FINDINGS

This chapter presented the summary of all key findings of the cross-case study in which all similarities and differences were highlighted and similarity rankings analysed.

The following were the only similarities between each of the case studies:

- PBIJV success factors:
    - excellent planning; and
    - motivating the project team.
- Main PBIJV problems:
    - not enough internationally recognised regulations and legislation in construction in Korea;
    - understanding the local ways of working and communicating with the local people on the project have been the most challenging aspects on the project;
    - management of remotely-based project consultants; and
    - maintaining a happy family in-country and managing project-related issues were equally pressurised.
- PBIJV main risks:
    - differing corporate cultures.

- Project manager profile:
    - adapted home-based project management style to suit the demands of managing in Korea;
    - being open-minded was one of the most important attributes for a project manager;
    - flexible and holistic management approaches;
    - Western project management should be confident, good communicators, open to new challenges, professionally competent and sensible; and
    - most important management principles for project managers are being aware, fair but firm, realistic and to have situational flexibility.
- Project manager philosophies for Asia:
    - neither the Western way nor the Asian way is the only way to manage;
    - hard working and rigidity best described the basic management philosophies of local JV management staff;
    - holistic management style was required to adequately manage the external environment; and
    - project managers should not focus on *hard* project management skills more than *soft* skills.
- Project management focus:
    - since the 2007 credit crunch the focus has been on the reduction of costs; and
    - the study of national culture.

The overall similarity between the case studies was at 53%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme. The only sub-categories that achieved a 100% similarity ranking were for 'philosophies in Asia' in the *hard* management sub-theme for Asian variables in the 'JV lead project manager'

category; and 'focus' in the *soft* management sub-theme for visions for the future in the 'JV lead project manager' category.

Based upon the emerging dominant themes derived from the within-case study and the findings of the cross-case study, Chapter Ten develops the Primary Framework into the Intermediate Framework as the platform for framework validation, which is Stage Three of the research process, as shown in Figure 9.2. The cross-case analysis and implications of the findings from the three case studies presented in Chapter Eight and Nine to improve the management of PBIJVs in Asia are also discussed in Chapter Ten.
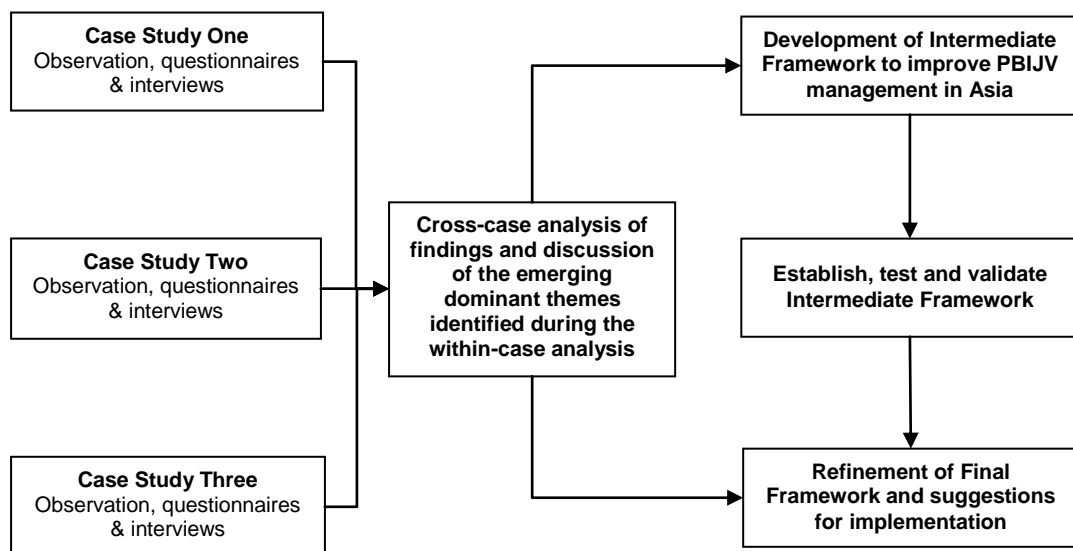
Figure 9.3: Overview of cross-case analysis and Framework

CHAPTER TEN – INTERMEDIATE FRAMEWORK, VALIDATION AND FINAL FRAMEWORK

10.1   INTRODUCTION

The theoretical background regarding the project management of PBIJVs on complex construction megaprojects in Asia was provided in Chapter Two through Five. The research methodology was established in Chapter Six together with details of the research approach, which comprised of three stages. The Conceptual Framework was presented in Chapter Seven together and the details and results of the stage one screening process interviews with Western project managers in Chapter Six. The Primary Framework was presented in Chapter Eight together with the details and findings of the first phase, within-case analysis, of the first part of Stage Two of the research approach was presented. The dominant themes, sub-themes, categories and sub-categories were presented in Chapter Nine together with a detailed cross-case analysis, of the second part of Stage Two of the research approach was presented.

This chapter firstly develops the Primary Framework into the Intermediate Framework, based upon the within-case and cross-case study findings as the platform for framework validation, which is Stage Three of the research process and presents the validation of the Intermediate Framework, which is based upon the validation findings. This chapter concludes by presenting the Final Framework, which proposes a guideline for Western project managers to manage and make multi-cultural teams work more effectively and efficiently on complex PBIJV construction megaprojects in Korea and the need for the Final Framework.

10.2   INTERMEDIATE FRAMEWORK

10.2.1 <u>Introduction</u>

The Primary Framework, detailed in Figure 8.1, is depicted as a high-rise building to maintain an industry-related reference and comprises of piles for the literature review headings, foundations for project location-related key dimensions, plant rooms for project-related key dimensions, vertical transport for key dimensions for project manager focus, basement and tower floors for project manager personality traits and roof for the highest scoring key dimensions for project success; based upon the findings of the stage one screening process interviews in Chapter Six. The Primary Framework is further developed based upon the findings of the within-case and cross-case analysis of the three case studies and the resultant Intermediate Framework is also presented in the form of a high-rise building complex as shown in Figure 10.1.

10.2.2 <u>**Intermediate Framework**</u>

The Intermediate Framework is depicted in Figure 10.1 and maintains an industry-related reference in the form of a high-rise building and comprises of the following structural components:

- Piles – areas of research presented in Chapters Two through to Five.
- Foundation – comprises of dominant themes from the case studies.
- Basement – comprises of dominant theme categories and elevator entry level.
- Podium – comprises of dominant theme sub-categories for the PBIJV category and lead JV project manager category.
- Core walls – comprises of sub-themes of *hard* and *soft* project management from the case studies.
- Elevators – comprises of key lead JV project manager dimensions derived from the case studies and are shown in ascending order of importance with the lowest scoring dimension at the entry level.

WORK AREAS	CORE	ELEVATORS	CORE	WORK AREAS	

KEY TO PROJECT SUCCESS			ROOF / GONDOLAS
	Study of National Culture		
MANAGING	Neither the Western Way nor the Eastern Way is the Only Way to Manage		DAMPERS

SIMILARITY FINDINGS FROM CASE STUDIES		**H A R D P R O J E C T M A N A G E M E N T**		**S O F T P R O J E C T M A N A G E M E N T**	TOWER
			Awareness	(3) Adapt home-based management style	
			Good communicator	(3) Open-minded	
			Situational flexibility	(3) Flexible and holistic	
			Holistic style	(3) Professionally competent and sensible	
	(3) Excellent planning		Realistic	(3) Confident, good communicators, open to new challenges	
	(3) Motivating project team		Fair but firm	(3) Aware, fair but firm, realistic & situational flexibility	
	(2) Insufficient internationalisation in the local industry		Open to new challenges	(2) Neither Western nor Asian way is the only way to manage	
	(2) Communication with local people		Professionally competent	(2) Philosophy of local staff to be hardworking and rigid	
	(2) Understanding local ways of working		Sensible	(2) Holistic management style to manage external environment	
	(2) Managing remotely-based project consultants		Structured	(2) Not to focus on *hard* more than *soft* management skills	
	(2) Balance between family life and work		Team player	(1) Reduction of costs in hard times	
	(1) Differing corporate cultures		Dynamic	(1) Study of national culture	

SUB-CATEGORIES	Key Success Factors (3)		Patient	Profile of Project Managers (3)	PODIUM
	Main Problems (2)		Honest	Manager Philosophies in Asia (2)	
	Main Risks (1)		Adaptable	Project Management Focus (1)	

CATEGORIES	**PBIJV**	**ENTRY LEVEL**	**Lead JV Project Manager**	BASEMENT

DOMINANT THEMES FROM CASE STUDIES	**Asian Variables Managing IJV Projects Dispersed People / One-teaming Family Dynamic Visions for the Future**	FOUNDATION

LITERATURE REVIEW	**Organisation, Management & Leadership**	**Environment**	**Asian ways & Culture**	**QM, TQM & SHRM**	**Joint ventures**	**Multi-national teams**	**Information, Communication & Information**	PILES

Figure 10.1: Intermediate Framework

- Tower floor work areas – comprises of the findings from the cross-case study for key dimensions, which are the same for each case study. The PBIJV work areas have four vacant floors as the lead JV project manager category had four more similarity findings than the PBIJV category.

- Building dampers – comprises the key project management dimension from the cross-case study, which impacts Western project managers in Korea.

- Roof / Gondolas – comprises the key project success dimension from the cross-case study, which impacts Western led JV projects in Korea.

10.3   VALIDATION

10.3.1 Introduction

The approach to validation was discussed in Section 6.5. This third and final stage of the research process involves the validation of the Intermediate Framework developed from the multiple-case study conducted during the second stage of the research process. For this research, internal validation was achieved via post-case study validation questionnaire responses by selected construction industry-related management professionals with extensive working experience in Asia and Korea. External validation was obtained via the information provided during the stage one screening process with Western project managers with years of experience working on construction megaprojects in Asia by PBIJVs and cross-case analysis. Face validity was obtained by having three of the originally interviewed project managers analyse the Intermediate Framework and providing comments. Content validity was achieved through the exploratory interviews with the Western project managers who were representative of the population under study. Construct validity was obtained by having the respondents review the Intermediate Framework and provide comments. Reliability was achieved through the case study tactic of using a case study protocol and triangulation

was achieved by using multiple sources of data in questionnaire responses, interviews and observations, which also improved the construct validity of the research. The Final Framework was developed based upon comments provided during the validation process.

This section details out the objectives of validation, process and results of the post-case study validation questionnaire and assessment of the Intermediate Framework.

10.3.2 Objectives of Validation

The objectives of validation were to achieve the following, which follow on from the research questions in Section 1.4 and the research aim and objectives in Section 1.5.

1. Confirm or otherwise, whether the nine validation respondents agreed with the research findings presented in the Intermediate Framework.
2. Gather opinions from the nine validation respondents to enhance the content and presentation of the Framework.
3. Finalise the Framework based upon the input of the nine validation respondents.

10.3.3 Validation Process

The validation questionnaire part of the validation process was carried out in the three following stages:

Stage One

The validation respondents were provided with the Intermediate Framework with a questionnaire guide to explain the content and context for individual review.

Stage Two

The validation respondents were provided with a validation questionnaire with questions segregated into the following sections:

- Intermediate Framework assessment;
- Intermediate Framework enhancement;
- PBIJVs; and
- Lead JV company Western project manager in Asia.

Stage Three

The validation respondents were requested to respond to the validation questionnaire questions and provide opinions about the Intermediate Framework.

The validation respondents reviewed and commented on the Intermediate Framework developed from the research to assess:

- the completeness of the Framework to help Western project managers improve how to project manage in Asia;
- if the Framework is easy to understand and follow; and
- the ease with which the Framework could be implemented.

The validation questionnaire (Appendix A.25) employed the use of the Likert uni-dimensional scales because it is less laborious than a Thurstone scale and ensures that all items measure the same thing. Likert's primary concern was with uni-dimensionality, namely, making sure that all the items would measure the same thing. Likert wanted to eliminate the need for judges by placing respondents on an attitude continuum for each statement running from 'strongly agree' to 'strongly disagree' as described by the following (Oppenheim: 2003):

- **Strongly agree** – respondent had no doubt on the certainty of question being asked.

- **Agree** – respondent generally agreed with the issue or principle underlying the issue being questioned.

- **Uncertain** – respondent was not sure but cannot confirm or deny the importance of issue under discussion or being questioned.

- **Disagree** – respondent did not agree with the issue or the principle underlining the issue being discussed or questioned.

- **Strongly disagree** – respondent was completely aware that the issue under consideration was not possible from his/her perspective.

10.3.4 <u>Respondents</u>

Stage Three, the final stage, of the research process is framework validation. The validation was conducted via a questionnaire with the three project managers of the selected case study projects after the Intermediate Framework was established, three other screening process project managers and three selected construction industry experts with extensive working experience in Asia all as depicted in Table 10.1. The workability of the Intermediate Framework was checked to view how it could be used to improve the manner with which Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia.

Table 10.1: Validation Questionnaire Respondents

Questionnaire Respondents		1	2	3
Type	Number			
Case Study (CSR)	3	PMA	PME	PMF
Screening Process (SPR)	3	PMB	PMC	PMH
Other Selected (OSR)	3	PMJ	PMK	PML

<u>Project Manager J</u>

The following are the personal details of Project Manager J ("**PMJ**"):

- nationality: American

- sex: male

- age: 64

- employer type: Real estate developer

- project job title: Vice President

- professional qualifications: BSc (Real Estate)

- location during project: Korea

- number of years as a full-time expatriate: 10 years

- number of years as a full-time expatriate in-country: 7 years

- language ability: English

- single/married in-country status: married

- nationality of wife: American

- in-country dependents: none

Project Manager K

The following are the personal details of Project Manager K ("**PMK**"):

- nationality: British

- sex: male

- age: 64

- employer type: Chartered quantity surveyor

- job title: President

- professional qualifications: FRICS

- location during project: Korea

- number of years as a full-time expatriate: 33 years

- number of years as a full-time expatriate in-country: 12 years

- language ability: English

- single/married in-country status: married

- nationality of wife: Korea

- in-country dependents: none

Project Manager L

The following are the personal details of Project Manager L ("**PML**"):

- nationality: British

- sex: male

- age: 65

- employer type: Claims consultant

- project job title: President

- professional qualifications: FRICS

- location during project: Korea

- number of years as a full-time expatriate: 40 years

- number of years as a full-time expatriate in-country: 15 years

- language ability: English

- single/married in-country status: married

- nationality of wife: Korea

- in-country dependents: none

The nine validation respondents have on average 21.8 years of experience as full-time expatriates with on average 7.7 years working in Korea.

10.3.5 Validation Results

Introduction

The validation of the Intermediate Framework was via a validation questionnaire. The validation questionnaire looked at the following topics, which is an assessment of the Intermediate Framework and how to improve its content and design:

- ➢ Section A – Framework Assessment
  - Key framework components (questions A.1-4)
  - The design of the framework (questions A.5-12)
  - Future use of the framework (questions A.13-15)
- ➢ Section B – Framework Enhancement
- ➢ Section C – PBIJVs
- ➢ Section D – JV Lead PMs in Asia

This section reviews the individual and collective responses to the validation questionnaire.

Four sets of results are discussed in this chapter to address the research questions posed in Section 1.4. The first set, presented in Table 10.2, deals with the framework assessment; the second set also presented in Table 10.2, deals with the framework enhancement; the third set presented in Table 10.3, deals with PBIJVS; and the fourth set presented in Table 10.4, deals with JV lead PMs in Asia all in the context about how Western PBIJV project managers manage East-West multicultural teams on complex construction megaprojects in Asia.

Framework assessment

All responses to the key framework components section of the questionnaire was to either strongly agree or agree with an overall average score of 4.45, which equates to 88.9%. The following each received the highest collective average score of 4.56, which equates to 91.2%:

- neither the Western Way nor the Eastern Way is the only way to project manage; and
- project management has at its core a combination of *hard* and *soft* management principles and skills.

The responses to the design of the framework section of the questionnaire were varied. Five of the respondents largely agreed with the design of the Intermediate Framework. Two of the respondents largely disagreed and one respondent was uncertain. Two respondents strongly agreed that the Intermediate Framework was easy to understand whereas one respondent strongly disagreed. The response to *"it is clear that the Dampers row depicts the Key Factor for PMs to project manage in Asia"* received the lowest collective average score of 3.11, which equates to 62.2% and the response to "*the inclusion of the first column of data, starting with Project Success improves the Framework*" received the highest collective average score of

3.78, which equates to 75.6%. The overall average score of 3.46, which equates to 69.2% of responses was in the mid-range of uncertain to agree.

The responses to the future use of the framework section of the questionnaire were also varied. One respondent strongly agreed that the Intermediate Framework could be implemented for project management in Asia without much training whereas one respondent strongly disagreed. The overall average score of responses was 3.81, which equates to 76.3% of responses in the upper range of uncertain to agree.

Table 10.2: Validation Results for Framework Assessment

QUESTIONS		CSR-1	CSR-2	CSR-3	SPR-1	SPR-2	SPR-3	OPR-1	OPR-2	OPR-3	SCORE	%
		RESPONDENTS' SCORES									**AVERAGE**	
A	**FRAMEWORK ASSESSMENT**										3.79	75.8
1	Factors identified in the Framework help Western PMs improve how to project manage in Asia	4	4	5	5	4	3	5	4	4	4.22	84.4
2	The key to project success for Western PMs in Asia is understanding the National Culture	4	5	5	4	5	5	4	4	4	4.44	88.8
3	Neither the Western Way nor the Eastern Way is the only way to project manage	5	5	5	5	4	4	5	4	4	4.56	91.2
4	Project management has at its core a combination of *hard* and *soft* management principles and skills	5	4	4	5	5	4	5	4	5	4.56	91.2
5	The Framework is easy to understand and follow	3	4	1	4	3	2	5	3	5	3.33	66.6
6	The inclusion of the first column of data, starting with *Project Success* improves the Framework	3	4	3	4	4	4	5	3	4	3.78	75.6
7	The inclusion of the last column of data, starting with *Roof / Gondola* improves the Framework	2	4	3	2	4	2	5	4	5	3.44	68.8
8	It is clear that the *Elevators* column depicts the PM skillset in order of importance from entry	2	4	3	4	4	2	5	4	5	3.67	73.4
9	It is clear that the *Roof / Gondolas* row depicts the Key to Factor for Project Success in Asia	2	4	3	3	4	2	5	3	4	3.33	66.6
10	It is clear that the *Dampers* row depicts the Key Factor for PMs to project manage in Asia	2	4	3	2	4	2	4	3	4	3.11	62.2
11	It is clear that the data in the *Tower Work Areas* depict the Key Dimensions for PBIJV & JV PMs	2	4	3	3	3	2	5	4	4	3.33	66.6
12	The Factors & Dimensions in the Framework are familiar	2	4	3	4	4	4	5	4	3	3.67	73.4
13	The Framework provides a sound basis for future research into project management in Asia	4	5	3	4	5	4	5	4	5	4.33	86.6
14	The Framework could be implemented for project management in Asia without much training	4	2	3	3	4	3	5	3	1	3.11	62.2
15	Your senior management would use the Framework on projects in Asia for awareness purposes	4	3	3	4	4	4	5	4	5	4.00	80.0
B	**FRAMEWORK ENHANCEMENT**										3.82	76.4
B.1	PBIJV SUCCESS FACTORS											
1	Include *Important for PM to live with family during project-based assignment* in *PBIJV* data column	2	3	5	5	5	3	4	4	5	4.00	80.0
2	Include A*chieving a coherent working team with a one-teaming philosophy* in *PBIJV* data column	4	2	5	5	4	4	5	4	4	4.11	82.2
B.2	MAIN PBIJV PROBLEMS											
1	Include *Having conference calls instead of face-to-face meetings* in *PBIJV* data column	4	4	1	4	3	3	4	4	3	3.33	66.6
B.3	PBIJV MAIN RISKS											
1	Include *Politics* in *PBIJV* data column	5	4	1	5	5	3	4	4	3	3.78	75.6
2	Include *Differences between East and West culture and beliefs* in *PBIJV* data column	5	4	2	5	4	3	4	4	4	3.89	77.8

PMA believed that the Intermediate Framework should be simplified with the inclusion of four or five categories with three or four points in each; and that the building analogy did not work. PME considered that the understanding of the Intermediate Framework could be enhanced through *"personal training"*. PMF initially commented that in isolation the Intermediate Framework *"says nothing to me I am afraid"*, but subsequently commented *"I spent some more time looking at the Framework and understood some of where you were coming from with the Tower"*. PMB commented that *"the factors identified within the framework are applicable to the entire project and are not independently applicable to each section of the building as the far right hand column suggests. I am not certain of the purpose of the far right column which includes Roof, Dampers, Tower, etc."*. PMH considered that *"the so-called framework is very blurred to me, I understand its content but not how to use it"*. PMJ commented that *"strong project management includes scheduling and budget/finance"*. PML commented that:

> *"factors identified in the framework help Western PMs improve how to project manage in Asia for awareness purposes. However, Leadership is one of the most important key factors in project success. Transformational leadership, which focuses on employee development, has proven to be instrumental in project success in Western countries. Non-customized transformational leadership fails to account for some project management aspects in Asia. Some countries' cultures are influenced by Confucian Dynamism therefore the study focused on the countries in Asia with cultures influenced by Confucian Dynamism. For example; Taiwan, Japan, Hong Kong, South Korea, and China. The study is needed, both theory and practice, and also practical examples should help project managers to understand how to lead and work with project teams in Asia."*

Framework enhancement

PBIJV success factors

The responses to the PBIJV factors to enhance the framework were varied. One respondent disagreed about the inclusion of "*the importance for PM to live with family during project-based assignment*" in PBIJV data column, whereas, six respondents either agreed or strongly agreed with an overall collective score of 4.00, which equates to 80%. Another respondent disagreed to the inclusion of "*achieving a coherent working team with a one-teaming philosophy*" in the PBIJV data column whereas eight respondents either agreed or strongly agreed with an overall collective score of 4.11, which equates to 82.2%.

PMA thought that "*building a team with a balance of expertise is vital*" and commented that "*such expertise would include communication, local knowledge as well as technology and management skills*". PMB commented that "*the importance of the family living with the PM during an assignment would seem contingent on the duration of the assignment. If the assignment is short, the family would potentially serve as a distraction. Moving a family unit is often disruptive to the family. Longer duration projects however, would absolutely require the PM to be together with his/her family*". PMJ commented that "*you might include a more specific reference to Scheduling in this area*". PML commented that "*project scope and execution, schedule development, project health check and risk assessment, cost control*" were missing key dimensions in the Intermediate Framework.

Main PBIJV problems

The responses to the PBIJV factors to enhance the framework were varied. One respondent strongly disagreed to the inclusion of "*having conference calls instead of face-to-face meetings*" in the PBIJV data column whereas five respondents agreed and three were uncertain with an overall collective score of 3.33, which equates to 66.6%.

PMJ commented that *"knowledge of local industry capabilities might be added"*. PML commented that *"rushing at the end, assuming the best, staff gaps develop, lack of strategic alignment, on time commencement"* were missing key dimensions in the Intermediate Framework.

<u>PBIJV main risks</u>

The responses to the PBIJV factors to enhance the framework was varied. One respondent strongly disagreed to the inclusion of "*politics*" in PBIJV data column whereas six respondents either strongly agreed or agreed and two were uncertain with an overall collective score of 3.78, which equates to 75.6%. One respondent disagreed to the inclusion of "*differences between East and West culture and beliefs*" in PBIJV data column whereas seven respondents either strongly agreed or agreed and one was uncertain with an overall collective score of 3.89, which equates to 77.8%.

PMA commented that *"one of the main risks is losing control of the project to local partners"*; and that *"politics can be big or small time, where the latter is probably the most influential from a negative point of view"*. PMJ commented that for the question about politics the *"issue is one of local / national government relations / expectations"* and *"your reference to 'Differences between East / West culture' is a good one"*. PML commented that *"errors in estimation/ planning, insufficient communication, inadequate resolution of priorities or conflicts, legal issues (disputes, lawsuits, and court orders), overworking the Project Manager, lack of skills, scope creep"* were missing key dimensions in the Intermediate Framework.

PBIJVs

The highest score in this section was 4.33, which equates to 86.6%, was achieved to the statement that "*excellent planning involves the daily input of all members of the project team*". The lowest score in this section was 1.67, which equates to 33.4%, was achieved to the statement that "*the difference*

between Asian ways and Western ways of working in the workplace is minimal".

PMA commented that there will *"always be non-aligned interests in JVs and managing these are key"*; and that *"family life can also be a stress in itself if conditions are not idyllic for the family"*. PMB commented that *"simply by allowing for cultural and corporate differences in approach, those differences are minimalized in terms of being obstacles. The second that one assumes there are no differences, those same challenges that were ignored, may become insurmountable*". PML commented:

"Management literature provide golden thumb rules which aim to make JVs successful. Here are some favourites:

1. *The higher the initial level of trust among partner firms and the host government, the higher is the likelihood that the JV will be successful.*
2. *The higher the organisational flexibility of a project-based IJV, the higher is the likelihood that it will be successful.*
3. *The higher the existing project-related capabilities of the partner firms, the higher is the likelihood of success in project-based IJV."*

Table 10.3: Validation Results for Case Study PBIJV findings

	QUESTIONS	CSR-1	CSR-2	CSR-3	SPR-1	SPR-2	SPR-3	OPR-1	OPR-2	OPR-3	SCORE	%
C	PBIJVs										2.92	58.4
1	Excellent planning involves the daily input of all members of the project team	4	5	5	4	5	4	4	3	5	4.33	86.6
2	Motivation of the project team is only necessary in times of difficulty	2	2	1	1	5	2	1	2	2	2.00	40.0
3	The only real act of motivation appreciated by project team members is a salary increase	2	2	1	1	3	2	1	2	2	1.78	35.6
4	The only real measure of project success is for the JV to collectively exceed budgeted profit margin	2	2	1	2	3	2	2	2	2	2.00	40.0
5	Achieving clear and transparent communications on projects is always a problem on projects	4	5	5	2	4	4	5	4	1	3.78	75.6
6	It is not necessary to have remotely-based project consultants on megaprojects	2	2	5	5	2	4	2	3	3	3.11	62.2
7	There is no downside in having video conferencing on projects instead of face-to-face meetings	2	5	1	1	5	4	2	2	3	2.78	55.6
8	The difference between Asian ways and Western ways of working in the workplace is minimal	2	2	1	2	2	2	1	1	2	1.67	33.4
9	Expatriate families can adapt with the minimum of fuss to any location	2	2	1	2	2	3	1	2	5	2.22	44.4
10	JV partner companies from different countries will not have the same corporate culture	4	5	5	3	4	4	4	4	3	4.00	80.0
11	Common international standards & regulations do not exist in construction in the industrialised world	4	2	5	2	4	4	3	3	2	3.22	64.4
12	All companies in construction have the same corporate culture of existing to make a profit	4	3	1	1	2	2	4	2	4	2.56	51.2
13	It is possible to have a project team on a JV to work towards project success with one-team ethic	2	2	5	5	4	4	4	3	4	3.67	73.4
14	Family life for an expatriate is a release from the stress of the workplace	4	5	5	1	4	4	2	4	5	3.78	75.6

JV lead PMs in Asia

The highest score in this section was 4.67, which equates to 93.4%, and was achieved to the statement that "*PMs need to be open-minded to adequately address daily variables, which occur on projects*". The lowest score in this section was 1.78, which equates to 35.6%, and was achieved to the statement that "*PMs cannot be both structured and have situational flexibility*".

Table 10.4: Validation Results for JV lead PMs in Asia findings

QUESTIONS		RESPONDENTS' SCORES									AVERAGE	
		CSR-1	CSR-2	CSR-3	SPR-1	SPR-2	SPR-3	OPR-1	OPR-2	OPR-3	SCORE	%
D	**JV LEAD PMs IN ASIA**										3.67	73.4
1	Good project management is best suited to a standard way of working	5	4	2	2	4	4	5	3	3	3.56	71.2
2	PMs need to be open-minded to adequately address daily variables, which occur on projects	5	5	5	5	5	4	5	4	4	4.67	93.4
3	PMs should be technically professionally competent in project management	4	5	4	5	4	5	5	4	5	4.56	91.2
4	PMs need to be strong-willed characters to ensure the project team follow the PMs lead	2	4	4	4	5	5	5	4	4	4.11	82.2
5	PMs need to be flexible characters to cater for the idiosyncrasies of the local environment	4	5	5	3	4	5	5	4	4	4.33	86.6
6	PMs should not focus on any set of particular project dimensions	4	4	2	3	2	5	4	3	2	3.22	64.4
7	PM skills in construction in Asia need to improve more than in the West	4	2	2	3	3	3	4	3	3	3.00	60.0
8	Korean project staff have consistent and predictable ways of working	4	4	5	4	4	4	4	4	2	3.89	77.8
9	Man management skills are more important than technical project management skills for a PM	5	2	5	4	4	5	5	3	4	4.11	82.2
10	The economic environment should not affect long-term project management strategy on megaproject	1	4	2	2	5	4	2	2	2	2.67	53.4
11	Managing megaprojects with multi-cultural teams require the same PM skillset regardless of location	4	4	1	4	5	3	1	2	3	3.00	60.0
12	PMs cannot be both structured and have situational flexibility	2	2	1	1	2	3	1	2	2	1.78	35.6
13	PMs need to be aware of all project-related matters	4	5	5	4	4	4	4	4	5	4.33	86.6
14	PMs need more than one management style to successfully project manage in Korea	4	5	5	2	3	5	5	4	5	4.22	84.4

PMB commented that *"in order for a PM to be successful in an international arena, they must apply a sense of flexibility within their own base of tested foundations"*. PMH commented that *"socializing is important in Asia much more than in the West. Spending time with the customer out of working hours is as important in Asia as meeting him in the office. This is the only way to build a strong interpersonal relationship that can be key to the success of the project. It all relates to trust, understanding, confidence, sharing successes and difficulties, be able to support each other when needed. In Korea, this is called 'jeong'. And my advice is that any Western project manager who wishes to succeed in Asia shall not only understand what 'jeong' means but practice it himself".* PMJ questioned whether a PM can be both strong-willed and flexible but commented "*need both at times*", considered "*technical knowledge provides creditability for man management*" and believed that PMs need to be *"aware of all major matters - too many minor matters"*.

10.4 FINAL FRAMEWORK

10.4.1 <u>Introduction</u>

The Final Framework is now presented and is based on the validation process and input by the validation respondents as included in Section 10.3.5. Firstly, the development steps of the framework is outlined and the need for a framework is discussed in Section 10.4.2 and an overview of the Final Framework is presented in Section 10.4.3. Finally, implications for the use of the Final Framework are discussed in Section 10.4.4.

10.4.2 <u>The need for a Framework</u>

The framework development process since establishing the Conceptual Framework and as shown in Table 7.1 is outlined in Figure 10.2.
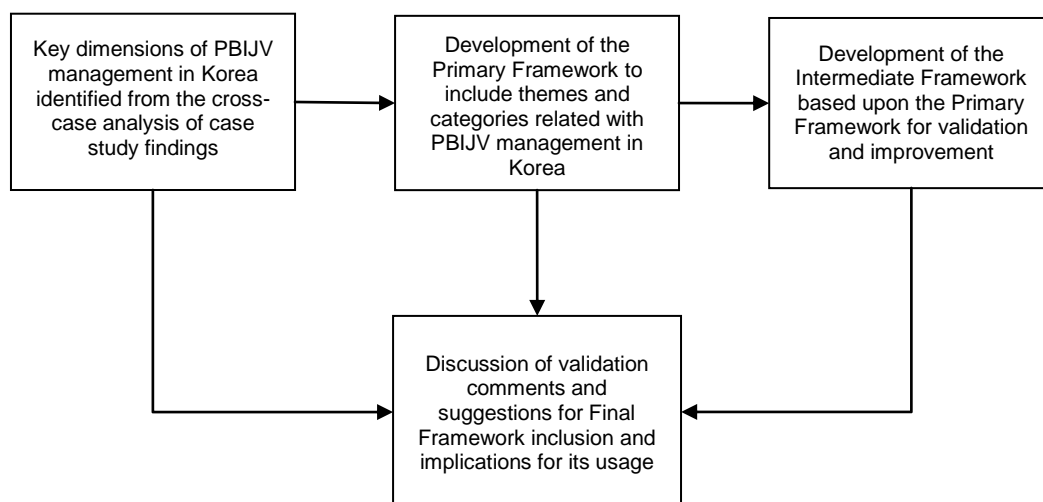
Figure 10.2: Framework development process (Primary through to Final)

Section 1.3.2 commented upon the inadequacies of existing research about the role of national culture in project management of IJVs in the construction industry in Asia and in particular the associated management of East-West multi-cultural teams. Therefore, research into this area was done and a framework was developed for Western project managers to understand and be aware what is required of them and key areas of focus.

10.4.3 <u>Framework Assessment and Enhancement</u>

The objective of the validation questionnaire was to find out whether the findings or impression formed by the researcher in the form of the Intermediate Framework was congruent with the opinions of and comments by the validation respondents (Bryman: 2008). Results shown in Tables 10.3, 10.4 and 10.5 together with comments from the validation respondents about the Intermediate Framework indicate that:

- the respondents as a minimum agreed with the factors identified in the framework as to how Western PBIJV project managers should manage complex construction megaprojects in Asia
- the respondents on average agreed with the design of the framework although this was not a unanimous position
- the respondents on average agreed the framework could be implemented for project management in Asia without much training although this was not a unanimous position

The Final Framework depicted in Figure 10.3 is the result of the findings from the literature review, within-case study and cross-case study research; and represents the collective outcome of the validation process, which includes framework enhancement based upon validation questionnaire responses and comments.

| KEY TO PROJECT SUCCESS | | WORK AREAS | CORE | ELEVATORS | CORE | WORK AREAS | | ROOF / GONDOLAS |

Study of Local National Culture

Neither the Western Way nor the Eastern Way is the Only Way to Project Manage

(JV3) Achieve a coherent working team with one teaming philosophy	Awareness	(PM3) Adapt home-based management style
(JV3) Live on project-based location with family during assignment	Good communicator	(PM3) Open-minded
(JV3) Excellent planning	Situational flexibility	(PM3) Flexible and holistic
(JV3) Motivating project team	Holistic style	(PM3) Professionally competent and sensible
(JV2) Insufficient internationalisation in the local industry	Realistic	(PM3) Confident, good communicators, open to new challenges
(JV2) Communication with local people	Fair but firm	(PM3) Aware, fair but firm, realistic & situational flexibility
(JV2) Understanding local ways of working	Open to new challenges	(PM2) Neither Western nor Asian way is the only way to manage
(JV2) Managing remotely-based project consultants	Professionally competent	(PM2) Philosophy of local staff to be hardworking and rigid
(JV2) Balance between family life and work	Sensible	(PM2) Holistic management style to manage external environment
(JV1) Politics	Structured	(PM2) Not to focus on *hard* more than *soft* management skills
(JV1) Differences between East and West culture and beliefs	Team player	(PM1) Reduction of costs in hard times
(JV1) Differing corporate cultures	Dynamic	(PM1) Study of national culture

The central vertical columns read: **HARD PROJECT MANAGEMENT** and **SOFT PROJECT MANAGEMENT**

Key Success Factors **(JV3)**	Patient	Profile of Project Managers **(PM3)**
Main Problems **(JV2)**	Honest	PM Philosophies in Asia **(PM2)**
Main Risks **(JV1)**	Adaptable	Project Management Focus **(PM1)**

| SUB-CATEGORIES | | | | | PODIUM |

| CATEGORIES | | **PBIJV** | **ENTRY LEVEL** | **Lead JV Project Manager** | BASEMENT |

Asian Variables
Managing IJV Projects
Dispersed People / One-teaming
Family Dynamic
Visions for the Future

| DOMINANT THEMES FROM CASE STUDIES | | | | | FOUNDATION |

Foundation piles:
- Organisation, Management & Leadership
- Environment
- Asian ways & Culture
- QM, TQM & SHRM
- Joint ventures
- Multi-national teams
- Information, Communication & Information

| LITERATURE REVIEW | | | | | PILES |

Left margin labels: KEY TO PROJECT SUCCESS, MANAGING, SIMILARITY FINDINGS FROM CASE STUDIES, SUB-CATEGORIES, CATEGORIES, DOMINANT THEMES FROM CASE STUDIES, LITERATURE REVIEW

Right margin labels: ROOF / GONDOLAS, DAMPERS, TOWER, PODIUM, BASEMENT, FOUNDATION, PILES

Legend: ▒ *Hard Variables*   ▦ *Soft Variables*

Figure 10.3: Final Framework

The Final Framework includes three similarity findings of "excellent planning" and to "achieve a coherent working team with a one-teaming philosophy" (both JV3), and "holistic management style to manage external environment" (PM2) from the cross-case study. These findings partially reflect the key characteristics of SHRM discussed in Section 5.3.4 but do not expressly reflect the long-term and decision-making focus expected of SHRM. Whilst the importance of decision-making, being recruitment savvy, having the correct recruitment approach and initial organisational project set-up were included in the Conceptual Framework (Table 7.1); these particular project-related dimensions were neither unanimously selected by the case study participants nor raised as being critical omissions from the Final Framework during the validation process.

SHRM is concerned with longer term people issues and macro concerns about structure, quality, culture, values, commitment and matching resources for future needs and involves treating people as valued assets. Indeed, one of the main keys to project success is attributable to people and how they work together. Section 5.3.4 discussed the importance of good people and project teams and one of the most important issues during the literature review was the importance of recruitment-related matters and as such the dimension of being "recruitment savvy" was included in the Primary Framework (Figure 8.1) together with awareness, collaborative, being clear and flexible as one of the five highest scoring dimensions necessary for project success.

Each case study participant answered questions about long-term issues related with recruitment and JV collaboration and considered the project manager focus had to be on the project, which may not be so long-term or interfaced with other company projects as many PBIJVs in construction are one-off collaborations. Recruitment-related matters were not collectively considered as being one of main priorities of the case study participants and as such did not form part of the Intermediate Framework. However, whilst

project managers may focus on the needs of the current project potentially to the detriment of future project considerations, the corporate company lens needs to be wider and to consider the long-term sustainability of the company and compatibility of its people with its corporate strategic goals.

TQM practices have a significant influence on SHRM practices and competitiveness and according to a study by Hatani and Mahrani (2013) SHRM practices were proven to be a link between the implementation of TQM practices and competitiveness as depicted in Figure 10.4.
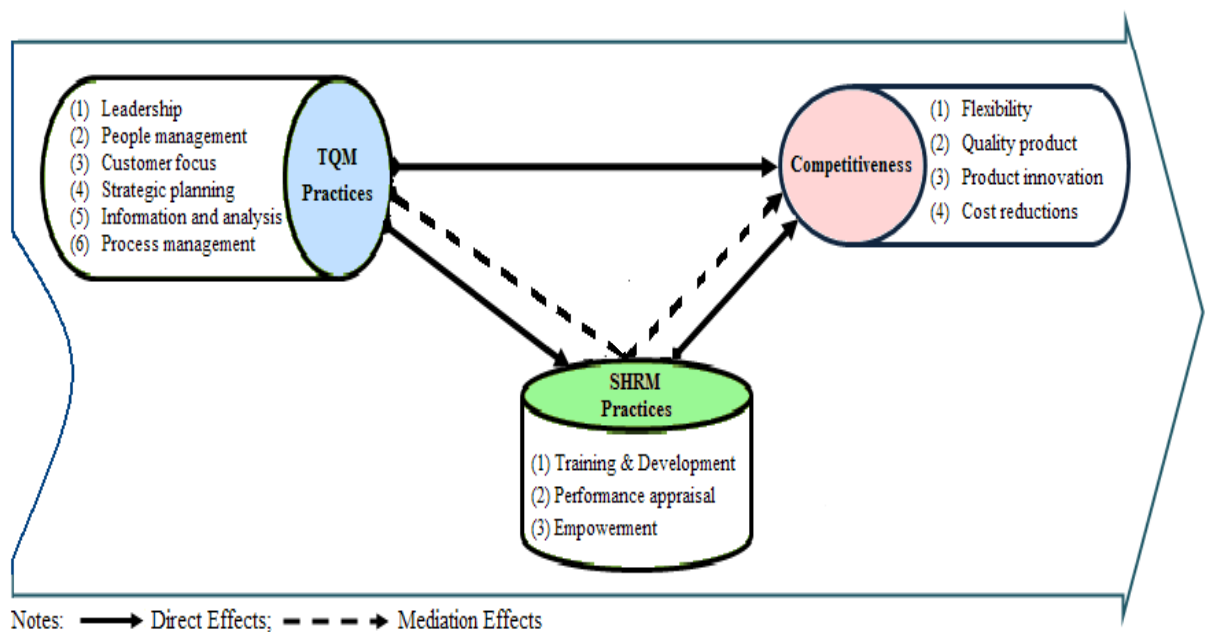
Figure 10.4: The competitive link between TQM and SHRM principles (adapted)

Source: Halani and Mahrani (2013)

The importance of virtual teams within PBIJV teams and the associated problems has been recognised within the Final Framework in "managing remotely-based project consultants". As discussed in Section 5.4.3, the

nature of PBIJVs is increasingly having to address the needs of virtual teams and issues related with e-teams, e-trust and e-ethics. Based upon the discussion in Section 5.4.3, the cross-case study findings and validation process, it is proposed that the Final Framework is applicable for a project manager with or without virtual teams within the PBIJV team.

10.4.4 Framework Guide and Implementation

Introduction

The purpose of the Final Framework is to be used as guide for expatriate project managers in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams, better enabling project success. In other words, to provide Western project managers on JV projects with a clear and simple set of key guidelines to improve the chances of project success.

The Final Framework, with its high-rise building form, comprises of nine component parts. It is important that the framework user, namely the project manager, understands the framework and is able to benefit from wealth of knowledge that has been condensed into the presentation format. This section presents the fundamentals of the design of the Final Framework together with a user guide and the likely implementation process.

Piles (literature review)

In the same way as the structure of a high-rise building is built upon piles, upon the traditional principle of bottom up construction, the development of the framework started its journey based upon the findings of an extensive literature review of construction, Asia, quality systems and JVs. Each pile refers to one of the seven main headings of the literature review. It is important that the Final Framework user understands that whilst the Final Framework highlights key areas for project manager focus for project success; the Final Framework is in itself built upon a multitude of very

important construction-related factors, which from a collective viewpoint, are also important for project success.

Foundation (dominant themes from case studies)

The five dominant themes derived from the within-case and cross-case analysis of the three case studies is depicted as a raft foundation on top of the building piles. This depicts the transition from the multitude of very important construction-related factors to the platform of themes which require more focus from the project manager.

Basement (categories)

High-rise building basements often comprise of plant rooms, which can be the engine of such buildings, and car parking areas, from which the people either occupying or working in the building park their cars before going up the building. The Final Framework depicts this area to show the two dominant theme categories derived from the case study analysis, namely, the PBIJV and the lead JV project manager, which comprise of the engines for project success: people. Entry for people to the upper floors of the building, in the form of a centrally located bank of elevators is depicted as the "entry level".

Podium (sub-categories)

High-rise buildings usually have a podium comprising of a main entrance lobby, information desk, goods unloading bays and building support facilities. The Final Framework depicts this area to show the three dominant theme sub-categories for both PBIJV and lead JV project manager categories. The three sub-categories for PBIJV are shown directly above the PBIJV category in the basement (JV1, JV2 and JV3). Similarly, the three sub-categories for lead JV project manager are shown directly above the lead JV project manager category in the basement (PM1, PM2 and PM3).

Core walls (*hard* / *soft* management)

In most high-rise building designs, the reinforced concrete core walls are very important, not least to maintain the required level of structural integrity throughout the entirety of the building. The Final Framework depicts this area to show the two differing types of project management skills required of a project manager, namely *hard* and *soft*, both of which according to the case study analysis are required at all times for project success. The *hard* and *soft* skills for good project management are depicted in the Final Framework as two separate parts of the core wall. However, although the similarity findings from the case studies show a 2:5 *hard* to *soft* ratio, these skills but should be treated as integrated and complimentary of each other from the flexible and holistic management perspective (PM3).

Elevators (key lead JV manager dimensions)

All high-rise buildings require elevators for the efficient and effective use of time of its occupants and users, namely people. The Final Framework depicts this area to show the key lead JV project manager dimensions derived from the case studies. These dimensions are shown in ascending order of importance from the top 15 dimensions derived from the case study analysis, with the highest scoring dimension being "awareness" on the top working level floor of the tower part of the building. Project manager should apply themselves in accordance with the lead JV project manager dimensions listed in the elevators part of the Final Framework with particular constant focus on the dimensions shown on the upper floors of the Final Framework tower.

Tower floor work areas (similarity findings from case studies)

One of the basic requirements of a high-rise building is to achieve an optimum level of space usage through multiple floors. The Final Framework depicts this area to show the findings from the cross-case study for key PBIJV dimensions (JV1, JV2 and JV3) and key lead JV project manager dimensions (PM1, PM2 and PM3), which were the same for each case study.

The number of floors depicted could have been equivalent to a super high-rise building. However, the similarity findings from the case studies, which needed to be unanimous, and the validation process only required 12 working level floors above the podium. Each of the 24 dimensions is considered as having equal importance in terms of project manager understanding, awareness and focus for project success. The *hard* and *soft* management dimensions are shaded differently from each other, where 17 of the 24 dimensions are *soft* variables.

Building dampers (managing)

Super high-rise buildings, particularly in areas with seismic activity, require dampers near the top of the building to absorb unwanted energy and control vibration. The Final Framework depicts this area to show the second most dominant finding from the cross-case study is the management style of the project manager. Twenty five per cent of the cross-case similarity findings were associated with management style, which is fully under the control of the project manager. The style of management can either cause unrest amongst the project people or provide stability.

Roof / Gondolas (key to project success)

Buildings require a roof to protect the building from the vagaries of the weather and contain equipment such as gondolas for maintaining the protective vertical outer layer of the building. The Final Framework depicts the roof and gondola area to show the most dominant finding from the cross-case study, namely, the importance of culturally-related factors. One third of the cross-case study similarity findings were associated with culture, which highlighted the importance for project managers to appreciate its potential to negatively impact project-related matters throughout a project life cycle if not adequately addressed and to accept the need to study the local national culture and apply as appropriate to enhance the chances of project success.

Implementation process

Introduction

The implementation of any new guideline to improve ways of working requires planning and commitment. In the same way as discussed in Section 4.3.10 in regard to TQM implementation, the implementation of the Final Framework as a tool for enhancing project manager understanding and awareness of the factors, requires varying degrees of planning and commitment to improve overall performance with the goal of optimising the chances of project success.

Head office

Total commitment from the top management of head office is essential to a successful implementation process for any new initiative (Dale *et al*: 2007, Baidoun and Zairi: 2003, Serpell: 1999 and Dale and McQuater: 1998). Top management is ultimately responsible to establish and maintain through participative actions, strategic recruitment policies, proper training programmes and discussion groups; a corporate environment to encourage continuous improvement with an open-minded learning culture to ensure that people are committed to continuous improvement.

Facilitator

If the company does not have a project manager with experience on JV megaprojects in Asia, the appointment of a facilitator with such experience is very important. Dependent upon SHRM considerations, the facilitator could be either in-house, new appointment or out-house. If the company is embarking on a new long-term project ventures in the Asian region for the first the appointment could be best served by the appointment of a new employee with experience working on PBIJVs in Asia. Alternatively, an in-house appointment of someone respected among employees with teaching skills and initial out-house training could transmit knowledge to other employees. Regardless of the choice of facilitator, the role of the facilitator is to lead the implementation process.

Planning

As highlighted in the Final Framework, planning is a key element of any activity. Planning should include scope, purpose, activities to perform, budget, facilitator(s) choice, training needs of facilitator(s), location, timetable and feedback cycle method. Plan the work and work the plan to prevent problems from arising during the implementation process.

Implementation team creation

Dale *et al* (2007) argued for the importance of creating an implementation team and highlighted the following benefits associated with teamwork:

- communication between employees and management;
- opportunity for people to be involved in decision-making;
- improves relationships;
- improves method knowledge;
- develops problem solving skills;
- facilitates awareness of a method's (Final Framework's) existence; and
- improves operating effectiveness as people want to achieve the same goals.

Clarity of purpose is paramount for a team to be effective (Dale *et al*: 2007), therefore, each member of the implementation process team needs clarity of tasks to be performed throughout the process. This can be achieved through the creation of a work plan with milestone achievement dates over a relatively short duration to motivate participants and to maintain enthusiasm.

Resources allocation

In order to successfully implement the Final Framework, an appropriate allocation of resources is required, which includes money, people, facilities, technology and time (Dale and McQuater: 1998). Resources are often in short supply, particularly company human asset resources, therefore, the efficient use of such resources is important. However, it is also important that the selected human assets are not only suitable candidates but also have

sufficient time to be actively involved rather than just superficial involvement. This requires top management ensuring that day-to-day workload commitments do not prevent proper participation in the implementation process. If this is not done the implementation process is more likely to fail.

Training

It is necessary to design a training programme for the implementation team members and that the programme deals with the factors in the Final Framework through experience, preferably based upon case study. The training programme timetable should be established in advance of the commencement of the training phase of the implementation process at times of the work week convenient to the project managers.

Final Framework's application

One again the support of top management is required, if not the application of the Final Framework will likely fizzle out unless there is a unilateral buy-in by project managers.

Monitoring progress

It is important to measure and monitor the progress of the implementation of the Final Framework. Since the main objective is to improve the chances of project success, the company needs to know how well the actual implementation is fulfilling the stated purpose of improved chances of project success. Along with appropriate measurements of application, the benefits of applying the Final Framework should become readily evident over time and project managers and project people will be encouraged to refer to the Final Framework tool on a constant basis.

Recognition

Recognition includes activities to acknowledge employee performance at the end of the implementation process in the form of top management presiding over ceremonies to present certificates to people who have successfully finished training courses, which improvement ways of working (Dale and

McQuater: 1998). Alternatively, a congratulatory message from top management could be sent to the individual to recognise excellence, however, such is not a shared experience. Essentially, such encouragement is for successful implementation process participants to continuously apply the Final Framework as part of their daily activities.

10.4.5 <u>Implications</u>

Although the design of the Final Framework could have been greatly simplified to four or five categories with three or four points in each, as suggested by PMA, the validation process validated the more fulsome framework format, which also has a relatively simplified content.

It is not suggested that simple reference to the Final Framework by Western project managers working on megaprojects done by JVs in Asia will result in an instant understanding and awareness of what to do. However, it is suggested that the Final Framework presents such project managers with a wealth of experience in a condensed simplified guide format in regard to the key factors for project manager awareness and focus. This should in turn improve project manager performance and focus, and result in improved project success.

It is expected that the Western project managers who use the Final Framework can better appreciate the complex nature of the interactions dominant themes, categories, sub-categories and factors identified in this research and contained within the Final Framework.

10.5 SUMMARY

This chapter presented the Intermediate Framework, which is based on the case study findings and the development of the framework and the need for the Final Framework is discussed. The validation process and findings are presented together with the Final Framework and is based upon the

validation process. The Final Framework is expected to provide Western project managers on JV projects in Korea with a clear and simple set of guidelines to improve the chances of project success. This chapter concluded with a discussion of the implications of the Final Framework. Chapter Eleven concludes with the findings of the research as a whole.

CHAPTER ELEVEN – RESEARCH FINDINGS AND CONCLUSIONS

11.1   INTRODUCTION

The main introduction to this research was presented in Chapter One. Chapters Two to Five presented the literature review and analysis; and developed the theoretical aspects and the context within which the research was conducted. Chapter Six presented the research design and methodology and appropriate research approach and process was selected and justified.

The research process was in three phases: Conceptual Framework and exploratory interviews, case studies and framework development and finally framework validation. Chapters Six and Seven presented results, analysis and discussion of findings of the first stage of the research process, post literature review, the Conceptual Framework, findings from the exploratory semi-structured interviews with Western project managers, details of the projects managed by these project managers, interview data, analyses and discussion of key factors influencing the management practices of Western project managers in Asia and the justification for the selection of the three case study participants.

Chapter Eight presented the Primary Framework, which was developed by including insights gained from the stage one interview process and the findings of the within-case analysis. Chapter Nine comprised of the detailed cross-case analysis of the investigation of project manager practices to deliver project success on PBIJVs with multi-cultural teams on construction megaprojects in Asia under the dominant themes and presented the summary of findings and implications. Chapter Ten developed the Primary Framework into the Intermediate Framework and presented the validation of the Intermediate Framework, which resulted in the presentation of the Final Framework, which is a guideline for Western project managers to manage

and make multi-cultural teams work more effectively and efficiently on complex PBIJV construction megaprojects in Korea.

This chapter presents the findings and conclusions of this research and recommendations for future research about how to improve the management of East-West multi-cultural construction teams on IJV megaprojects in Korea and Asia and discusses how the research objectives were achieved. This chapter also presents the main limitations of the research and concludes with recommendations for further research, which could be conducted based upon the conclusions and limitations of the research.

11.2   ACHIEVEMENT OF RESEARCH OBJECTIVES & CONCLUSIONS

11.2.1 <u>Introduction</u>

The research objectives were developed in Section 1.5.2 in order to achieve the aim of the research as stated in Section 1.5.1. Objectives One through to Four were primarily achieved through literature reviews. Objective Five was primarily achieved through the establishment of the Conceptual Framework (Table 7.1), which is based upon the analysis of the literature review of construction, Asian ways, TQM and IJVs; and enhanced via the Primary Framework (Figure 8.1) based upon the screening process questionnaire responses and interviews.

Objective Six was primarily achieved through the establishment of the Intermediate Framework (Figure 10.1), which is based upon within-case and cross-case analysis of findings from the three case studies and the development of the dominant themes, categories and sub-categories. Table 11.1 summarises how each of the six research objectives was achieved.

Table 11.1: Methods of achievement of research objectives

Objective	Details of Objectives	Method of achievement
ONE	To explore the differing ways project managers can manage and lead project teams, and make decisions to achieve construction project success	The primary method was the literature review of related research about construction and management
TWO	To explore Asian ways and culture, approach to organization, management and decision-making processes so that Westerners can better understand differing ways to approach management as a lead partner on a PBIJV in Asia	The primary method was the literature review of related research about Asia ways and IJVs
THREE	To explore whether Western project managers need to apply a basic core philosophy of being simple, holistic, dynamic and flexible for management issues on a PBIJV project in Asia and if it is important to recognize *hard* and *soft* TQM fundamentals to achieve project success	The primary method was the literature review of related research about TQM
FOUR	To explore the importance for project managers to have prior personal relevant experiences, in particular cross-cultural management and exposure to politics, and ways multi-national dispersed e-teams can be organized to achieve good collaboration, quick decision-making and PBIJV success	The primary method was the literature review of related research about management and TQM
FIVE	To identify factors of success and failure in the project management of construction megaprojects by PBIJVs in Asia with the objective of exploring new ways of working for Western expatriate project managers on construction megaprojects in Asia resulting in improved project manager performance	Established the Conceptual Framework based upon the analysis of the literature review of construction, Asian ways, TQM and IJVs and enhanced via the Primary Framework based upon screening process questionnaire responses and interviews
SIX	To establish a set of *soft* and *hard* management principles and propose an effective framework for Western expatriate project managers to use as a guide in the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams	Intermediate Framework based upon within-case and cross-case analysis of findings from three case studies and the development of the dominant themes, categories and sub-categories

11.2.2 <u>Literature Reviews</u>

Objectives One through to Four were primarily achieved through the literature reviews presented in Chapters Two, Three, Four and Five. The following details each objective of the research.

Objective One – differing ways to project manage

The first objective was primarily achieved through the literature review of books, academic journals, industry journals and web sites about the UK

construction industry, organisations, management, leadership and the environment.

Conclusions – literature review

This literature review concluded that project managers need to manage and lead project teams, recognise the importance of the people in the teams, positively encourage team integration with total communication on projects and have a full range of *hard* and *soft* skills with a holistic management style in the decision-making process to achieve construction project success always mindful of internal and external environments in an ever increasing global workplace.

Objective Two – Asian ways

The second objective was primarily achieved through the literature review of books, academic journals, industry journals and web sites about Asian ways and culture.

Conclusions – literature review

The literature review concluded that Western project managers require a flexible and holistic way of management thinking as a lead on a PBIJV project in Asia, have the attributes required to both manage and lead project teams, be equipped with an understanding of cultural differences at play and to fully recognize there is no one way of working to achieve project success.

Objective Three – project management and TQM

The third objective was primarily achieved through the literature review of books, academic journals, industry journals and web sites about quality systems and TQM in construction.

Conclusions – literature review

The literature review concluded that Western project managers need to address all of the key dimensions derived from the review with a flexible and

holistic way of management thinking as a lead on a PBIJV project in Asia and recognize the importance of TQM fundamentals in the Asian context to achieve project success.

Objective Four – IJV management skills

The fourth objective was primarily achieved through the literature review of books, academic journals, industry journals and web sites about JVs, multi-national teams, information, communication and coordination.

Conclusions – literature review

The literature review concluded that complex megaprojects with their varying PBIJV partner cultures result in a project culture which is totally unique with difficulties to manage and achieve successful collaboration with their inherent ambiguities, subcultures, conflicts, various national, professional and project cultures. Therefore, to achieve PBIJV success project managers need to utilize return of personal experiences, in particular cross-cultural management and politics, and to organize their multi-national dispersed e-teams in accordance with a clear matrix of responsibilities based upon the trust equation of CM communication, competence, credibility, consistency, support, respect and honesty to achieve good collaboration. All of these efforts must be supported by the senior levels of the partners in terms of good partner selection, DJ and appropriate equity share to generate a reasonable balance between PBIJV control and trust to enable timely decision-making.

11.2.3 Exploratory interviews and framework development

The fifth objective was primarily achieved through the establishment of the Conceptual Framework based upon an analysis of the findings of the literature review of construction, Asian ways, TQM and IJVs; an analysis of the categories and groups in the Conceptual Framework; and enhancement of the Conceptual Framework in the form of the Primary Framework based upon screening process questionnaire responses and interviews.

Objective Five – factors of success and failure / new ways of working

Conceptual Framework

The Conceptual Framework, which is based upon the analysis of the literature review findings and conclusions in the form of the key dimensions required to effectively project manage PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams. The key dimensions were within the following four literature review categories:

1. Construction industry, organizations and management
2. The Asian way
3. Quality Management Systems and TQM in construction
4. IJVs.

Screening process

Questionnaires and screening interviews were conducted to identify which Western PBIJV project managers, who managed East-West multicultural teams on construction megaprojects in Asia, and projects alike met the case study criteria. The data from these questionnaire responses and interviews were used to select the case study project managers and projects. Three case study project managers and projects were selected. Case studies of these three selected project managers and projects were conducted to explore how Western PBIJV project managers could better manage East-West multicultural teams on construction megaprojects in Asia. A management framework for Western PBIJV project managers was developed from these case studies.

11.2.4 <u>Case Studies and framework development</u>

The sixth objective was primarily achieved through the establishment of the Intermediate Framework based upon within-case and cross-case analysis of findings from the three case studies and the development of the dominant themes, categories and sub-categories.

Objective Six – basic principles to develop an effective framework

The framework was developed progressively over the four following stages:

- Conceptual: in Chapter Seven – from the literature review.
- Primary: in Chapter Eight – from the analysis of the screening process.
- Intermediate: in Chapter Ten – from the analysis of case studies.
- Final: in Chapter Ten – from the validation process.

However, the within-case and cross-case study findings established similarities to establish the Intermediate Framework based upon live findings.

Main Findings and Conclusions – case studies

The Intermediate Framework depicts the main findings and conclusions of the literature review, as referred to in Section 11.2.3, and the case studies. The following were the similarities between the case studies:

- PBIJV success factors:
  - excellent planning; and
  - motivating the project team.
- Main PBIJV problems:
  - not enough internationally recognised regulations and legislation in construction in Korea;
  - understanding the local ways of working and communicating with the local people on the project have been the most challenging aspects on the project;
  - management of remotely-based project consultants; and
  - maintaining a happy family in-country and managing project-related issues were equally pressurised.
- PBIJV main risks:
  - differing corporate cultures.
- Project manager profile:
  - adapted home-based project management style to suit the demands of managing in Korea;

- o being open-minded was one of the most important attributes for a project manager;
- o flexible and holistic management approaches;
- o Western project management should be confident, good communicators, open to new challenges, professionally competent and sensible; and
- o most important management principles for project managers are being aware, fair but firm, realistic and to have situational flexibility.

- Project manager philosophies for Asia:
  - o neither the Western way nor the Asian way is the only way to manage;
  - o hard working and rigidity best described the basic management philosophies of local JV management staff;
  - o holistic management style was required to adequately manage the external environment; and
  - o project managers should not focus on *hard* project management skills more than *soft* skills.

- Project management focus:
  - o since the 2007 credit crunch the focus has been on the reduction of costs; and
  - o the study of national culture.

The overall similarity between the case studies was at 53%. In a comparison of sub-themes, there was a greater similarity between the sub-categories in the *soft* management sub-theme. The only sub-categories that achieved a 100% similarity ranking were for 'philosophies in Asia' in the *hard* management sub-theme for Asian variables in the 'JV lead project manager' category; and 'focus' in the *soft* management sub-theme for visions for the future in the 'JV lead project manager' category.

11.2.5 <u>Framework validation</u>

The framework validation was conducted via a questionnaire with the project managers of the selected case study projects after the Intermediate Framework was established, screening process project managers and other selected construction industry experts with extensive experience in Asia. The workability of the Intermediate Framework was checked to view how it could be used to improve the manner with which Western PBIJV project managers manage East-West multicultural teams on construction megaprojects in Asia. It is expected that the Western project managers who use the Final Framework can better appreciate the complex nature of the interactions dominant themes, categories, sub-categories and factors identified in this research and contained within the Final Framework.

The validation respondents individually recommended the inclusion of the following factors and issues into the Final Framework:

- Leadership
- Project team to have a good balance of expertise including communication, local knowledge and management skills
- Scheduling
- Cost control
- Risk assessment
- JV partner strategic alignment
- Beware scope creep
- Organisational flexibility
- Trust among partner firms
- Project-related capabilities of partners
- "*jeong*"
- Project manager technical knowledge.

All of these suggested factors and issues were contained within the literature review and/or the case study process except for scope creep and "*jeong*". Chung and Cho (2013) argued that "*Jeong is not entirely definable even in*

the Korean language; it is ambiguous and amorphous. The best description is that jeong has multiple faces", where "*the manifestation of jeong in a social structure and in social values is primarily through loyalty and commitment without validation, logic, or reason*".

Main Findings and Conclusions – validation

Results shown in Tables 10.3, 10.4 and 10.5 together with comments from the validation respondents about the Intermediate Framework indicated that:

- the respondents as a minimum agreed with the factors identified in the framework as to how Western PBIJV project managers should manage complex construction megaprojects in Asia
- the respondents on average agreed with the design of the framework although this was not a unanimous position
- the respondents on average agreed the framework could be implemented for project management in Asia without much training although this was not a unanimous position

11.3   CONTRIBUTION TO RESEARCH

11.3.1 <u>Introduction</u>

The research set out to address the following research questions initially presented in Section 1.4.1:

- *how should a PBIJV approach a complex construction megaproject in Asia; and*

- *how can Western expatriate project managers' best manage and lead the project management of a megaproject from inception to completion and enable the best chance for overall project success?*

The contribution of this research falls into two main categories; (i) theory and (ii) practice and industry.

11.3.2 <u>Theory</u>

Related theories include those stressed by the *Latham Report* and the *Egan Report* about the importance of partnering, JVs, leadership, integration, quality and people.

Construction megaprojects bring together, under various contractual arrangements, differing and competing partners, interests, values and ways of working; all of which have to be managed to the best of available abilities by construction industry professionals and civil servants, to varying degrees, in an environment of very complex operations, risks, uncertainties and influences (Van Marrewijk *et al*: 2008). These megaprojects are often characterised by cultures, which are ambiguous (Engwall: 1998) and performed by organisations with no single centre of ultimate control due to the involvement of many partners and collaborators whose decision-makers rarely look for optimal solutions due to insufficient amounts of good timely information (March and Simons: 1958). This type of project scenario is commonplace and as such megaproject success is not commonplace in the

construction industry (Long *et al*: 2004) and the record of accomplishment of megaprojects is fundamentally poor (Ruuska *et al*: 2009).

However, megaprojects are all about people and good communication is essential with a common understanding of objectives from the outset (Conkleton: 2008). The person in charge of these project people on megaprojects done by JVs is the lead JV project manager. These PBJV managers are both born and made (Spekman *et al*: 1996) but compared with a domestic PBJV manager, the job of a PBIJV manager is more complex with the need to be not only technically competent but also open-minded, flexible and cooperative.

There is not a theoretical base in place to address the key dimensions which require project manager focus on a megaproject. This thesis provides a knowledge base to advance further theories and improved understanding of the project management of megaprojects in Asia.

11.3.3 <u>Practice and Industry</u>

This research has contributed to the body of knowledge within construction project management research by providing a new guideline framework in support of previous JV study frameworks such as the guideline framework by Hung *et al* (2002) as depicted in Table 11.2, which was built upon the findings and theoretical groundwork of Woodside and Pitts (1996) and included the recommendations of Root (1994) regarding the managerial checklist for JV entry to a new country and the comprehensive list of IJV success factors of Lorange and Roos (1991); the conceptual framework for project success by Ling *et al* (2009) as depicted in Figure 11.1, which lists the basic project management actions required as part of the overall framework to achieve project success; and the framework for cross-multi-cultural project performance as depicted in Figure 11.2. This research also added a further successful example of the use of case studies in construction management, helping to address the deficiency recognised by Simister (1995).

Hung *et al* (2002: 519) proposed that based on their findings related to the overall satisfaction with the JV, and the most significant managerial problems at PBIJVs, the framework for managerial guidelines in Table 11.2 with its four steps "should provide a comprehensive analytical background for managers who will be involved the PBIJV creation and project management".

Table 11.2: Guidelines for PBIJV management

Source: Hung *et al* (2002)

Dimensions by Woodside and Pitts (1996)	PBIJV models	Notes
1. Solution-opportunity identification	A. Corporate strategy	Strategy was the most significant factor of PBIJV entry motivation
	B. Evaluating relevant driving forces	Evaluating environmental, **partner**, and project characteristics
	C. Risk-reward analysis	S.W.O.T analysis accounting for both project and partner attributes
2.Evaluation of basic proposal for an IJV	D. Decision about tender	Project participation
	E. PBIJV organization and structure	Key objective is flexibility within the Constraints of the project
3. Design of IJV	F. PBIJV implementation and Management	Control, responsibilities, conflict and risk management
4. Implementation and results of operating IJV	G. Applying **S.T.R.O.I** principles	Multidimensional evaluation of PBIJV success
	H. Creation of project of data bank	Documentation of PBIJV experiences

Conclusions

The findings of this research concluded that a framework, based on the literature review findings and findings of case studies, to improve project management skills on complex PBIJV construction megaprojects in Asia would be of benefit to Western project managers and could result in enabling multi-cultural teams to work more effectively and efficiently with the ultimate goal of achieving project success. Although of the three case study interviewees, one argued that a framework would be of no particular benefit and another thought whilst such a document may prove useful was not convinced it would actually be referred to by project managers. The Final

Framework, at the very least, could be released as a management tool for project managers about to work in or working in Asia.
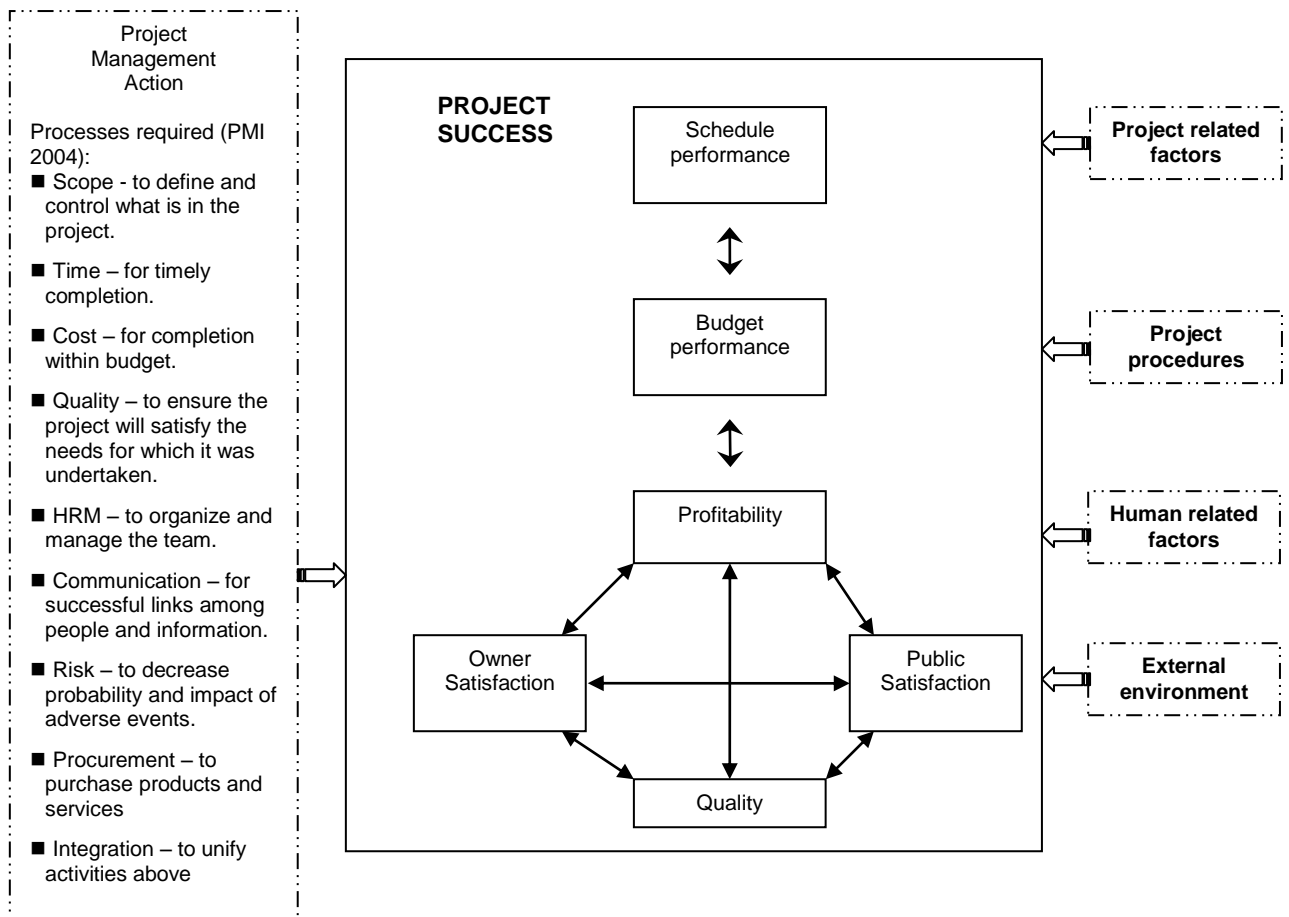
Figure 11.1: Conceptual framework for project success (adapted)
Source: Ling *et al* (2009)
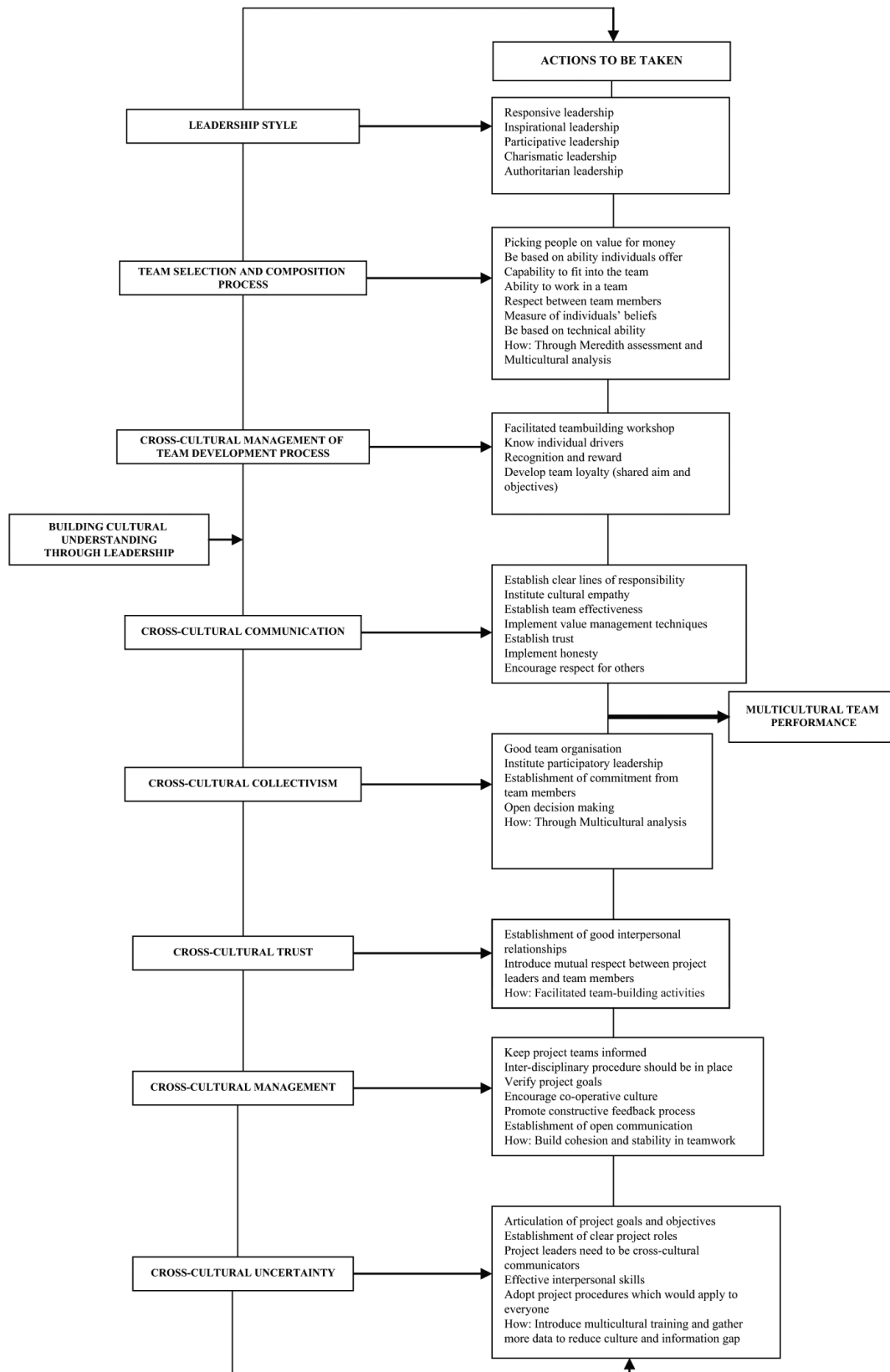
Figure 11.2: Cross-multi-cultural project performance framework

Source: Ochieng and Price (2009)

11.4   RESEARCH IMPLICATIONS

11.4.1 <u>Introduction</u>

The addressing of the research questions in Section 11.3 has wider implications for the aspirations of project managers within construction in Asia. The main implications discussed in this section is the increasing global power of Asia in globalization and the emphasis on national culture and useful return of experience management tools for Western project managers in Asia.

11.4.2 <u>The Final Framework</u>

In *Responding to Latham,* Simms (1995) argued that the construction industry can no longer accept a 19th century framework. The Final Framework is a framework for the 21st century for Western project managers in Asia.

Although the design of the Final Framework could have been presented in a more streamlined format showing four or five categories with three or four points in each, as suggested by PMA, the validation process validated the more full-some framework format.

It is not suggested that simple reference to the Final Framework by Western project managers working on megaprojects done by JVs in Asia will result in an instant understanding and awareness of what to do. However, it is suggested that the Final Framework presents project managers with a wealth of return of experience in a condensed simplified guide format in regard to the key factors for project manager awareness and focus. This should in turn improve project manager performance and result in improved project success.

11.4.3 <u>The Expanding Reach of Asia</u>

The global nature of big business means that large companies looking to increase their field of operations can no longer survive in splendid isolation

because everyone is part of the same complex, increasingly interlinked world. This globalization needs to be understood in the context that global power is moving from the West to the East where the speed of Asia's recovery, since the failure of Lehman Brothers in 2008, compared to the West may signal a re-alignment of world power with China at its core. Regardless, China is destined to dominate the global economy by 2050.

The West needs to better understand about Asian cultures and how Asia does business.

11.4.4 <u>Managerial Implications</u>

The construction industry is on a path towards globalization and needs to take a more global approach and recognise the importance of Asia in the business landscape. In such an environment Western project managers on PBIJV megaprojects need to be global managers with an awareness and understanding of national cultural issues being essential to their project success.

In *Constructing the Millennium,* Latham (2000) argued that construction needs a holistic approach based on teamwork with partnering. The literature review, the case studies and the validation supported the view that a holistic approach is an important dimension required of project managers on PBIJV megaprojects.

As a working tool the Final Framework highlights to project managers the importance of understanding *hard* and *soft* management, to understand the importance to study national culture and that neither the Western way or Eastern way is the only way to manage. It is expected that the Western project managers who use the Final Framework should be able to better appreciate the complex nature of the interactions between dominant themes, categories, sub-categories and factors identified in this research and contained within the Final Framework.

11.5 RESEARCH LIMITATIONS

In the same way that research generally has limitations, this research was no different in that there were limitations in its conduct and scope. The main limitation is the applicability of the Final Framework to Asia as a whole. Moreover, generalizability is a recognised limitation of the case study methodology. The following research limitations provide the basis for future research recommendations outlined in Section 11.6:

- There were only three case studies in the research.

- The case study part of the research was only represented by Western project managers working in South Korea, which in turn represented the Confucian Asia cluster. Due to screening process non-compliance, it did not include insight from Western project managers working in Thailand, which was intended to represent the Southern Asia cluster as described in Section 1.3.2.

- The case study part of the research was limited to representation of Western project managers working in South Korea. It did not include input from indigenous Eastern project managers working in Asia.

- The case study part of the research was limited to representation of Western project managers from England and America as representative of the Anglo cluster.

- No framework validation input by Eastern project managers working in Asia.

- The case study part of the research was on the developer and contractor side of the project delivery team and did not include project client consultant representation. The validation process tried to accommodate this limitation by including two project client consultant respondents out of a total of nine respondents of which four were from the client-side and three from the contractor-side.

11.6 RECOMMENDATIONS

The following recommendations are based upon the research limitations as discussed in Section 11.5 and are made for future research into the project management of PBIJVs in complex construction megaprojects in Asia, with East-West multi-cultural dispersed project teams:

- Extend the depth of research by undertaking a larger study of Western project manager insights about managing construction megaprojects in South Korea to represent the Confucian Asia as described in Section 1.3.2.

- Extend the depth of research by undertaking a large study of Western project manager insights about managing construction megaprojects in Thailand to represent the Southern Asia cluster as described in Section 1.3.2.

- Extend the depth of research by undertaking a larger study of Anglo cluster project manager insights about managing construction megaprojects in Asia by including all nationalities from the Anglo cluster, namely – Australia, Canada, Ireland, New Zealand and South Africa (whites); and not just from England and America.

- Extend the depth of research by undertaking a larger study of project manager insights about managing construction megaprojects in Asia by including project managers from the Germanic, Nordic and Latin European clusters.

- Extend the depth of research by undertaking a larger study of Western project manager insights working on megaprojects in Asia by including Western project managers working on megaprojects in all Confucian cluster countries, namely – China, Hong Kong, Japan, Singapore, South Korea and Taiwan.

- Extend the depth of research by undertaking a larger study of Western project manager insights working on megaprojects in Asia by including

Western project managers working on megaprojects in all South East Asian cluster countries, namely – India, Indonesia, Malaysia, Philippines and Thailand; but excluding Iran.

- Extend the depth of research by undertaking a large study of Korean and Thai project manager insights about managing construction megaprojects in South Korea and Thailand respectively.

- Extend the depth of research with an equal spread of studies with developer, project client consultant and contractor project managers.

- Extend the depth of research to studies with developer, project client consultant and contractor project managers on construction megaprojects in each of the major Asian countries.

- Focus on key framework dimensions such as the study of national culture and appropriate ways to manage in Asia.

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APPENDICES

Appendix A.16:   Literature based analysis of key dimensions of IJVs and consortia – Information, communication & coordination

Appendix A.17:   Literature based analysis of construction – dimensions of project success (Information, communication & coordination)

Appendix A.18:   Key dimensions of construction and project success

Appendix A.19:   Key dimensions of the Asian Way and project success in Asia

Appendix A.20:   Key dimensions of QM and TQM in construction

Appendix A.21:   Key dimensions of IJVs and consortia and project success

Appendix A.22:   Screening process operational criteria checklist

Appendix A.23:   Screening Questionnaire/Interview guide – stage one

Appendix A.24:   Case Study Questionnaire – stage two

Appendix A.25:   Validation Questionnaire

APPENDIX A.1

Project matrix organization structure
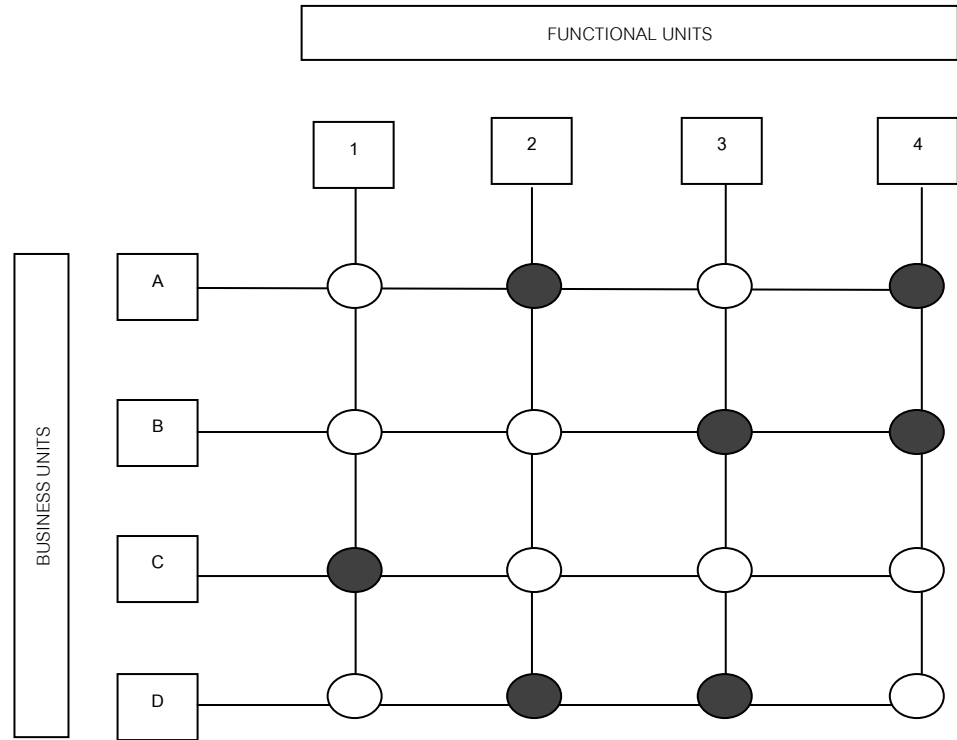
Appendix A.2: Literature based analysis of key dimensions of construction – the industry

Key dimensions of Construction – The Industry

Literature Sources	traditional, conservative and pragmatic	dirty, low skilled, accident prone	dynamic and complex environments	construction is unique	involving many products and broad range of people	fragmented nature of delivery e.g. subcontractors	reluctant to change	clients at the core of the construction process	domain of men and strongly classed	military in structure	complex structure	rework is an accepted common practice	project stakeholders with own aspirations/agendas	activities take place in an uncontrolled environment	activities are discontinuous, dispersed, diverse & distinct	construction contracts have long been problematical	culture of confrontation and conflict	adversarial	inadequacies in project management skills	unethical practices
Stockdale (1998a)	✓																			
Accelerating Change		✓																		
Raiden (2004)			✓																	
Hawkins and Rajagopal (2005)				✓																
Preece and Tarawneh (1998)					✓	✓														
Kwakye (1997)							✓				✓									
Chileshe and Watson (1998)																				
Preece and Tarawneh (1998)								✓												
Responding to Latham								✓												
Jones (1995)					✓	✓														
Ng et al (2004)									✓											
Evetts (1996)				✓																
Pheng and Omar (1997)										✓										
Greed (1998)					✓															
Cheetham (1998)											✓									
Rethinking Construction						✓						✓								
Sherif (1996)						✓														
Joham et al (2009)													✓							
Edum-Fotwe and Price (2008)														✓						
Tietz (1999)															✓					
Pheng and Tan (1996)																✓				
Lavender (1996)																	✓			
Rooke and Seymour (1995)																		✓		
Baloi and Price (2003)																			✓	
Kang et al (2006a)																				✓
Toor and Ofori (2008)	✓																			

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Appendix A.3: Literature based analysis of construction – dimensions of project success (the industry)

Construction - Dimensions of Project Success (The industry)

Dimension	Latham Report	Egan Report	Ward et al (1991)	Baldwin (1996)	Accelerating Change	Major Projects Association (2007a)	Major Projects Association (2007c)	Rooke and Seymour (1995)	Palles-Clark (1998)	Pokora and Hastings (1995)
achieve understanding of what clients expect										✓
reversal of adversarial relationships and practices										✓
the people involved in making the project happen									✓	
properly defining the project requirements at the outset									✓	
finding ways of collaborating more effectively								✓		
trust is the cornerstone of any successful contract						✓				
construction contracts need to properly administered							✓			
construction contracts that justly reward performance						✓				
integrated teams					✓					
more standardisation to improve communication				✓						
integrated approach with common goals				✓						
important that clients set clear objectives			✓							
commitment to people		✓								
quality driven agenda		✓								
integrated processes and teams		✓								
focus on the customer		✓								
committed leadership		✓								
non adversarial contracts	✓									
JVs between developers and contractors	✓									
alternative dispute resolution	✓									
project partnering	✓									

Literature Sources

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Appendix A.4: Literature based analysis of key dimensions of construction – organisations, management and leadership

Key dimensions of Construction – Organisations, Management and Leadership

Column legend (dimensions):

Organisations
- C1: organisational project structures in pyramid format
- C2: organisation structures with functional departments

Project management and managers
- C3: site operatives focused on building not management
- C4: projects frequently undertaken by firms with no formal management training
- C5: planning, organising, implementing, controlling
- C6: typical project is a complex system of units and people
- C7: projects are one-off endeavours
- C8: dynamic organisation structures
- C9: collaboration of different disciplines
- C10: people tend to work shorter periods for individual companies
- C11: Construction projects are unique
- C12: life-cycle of a construction project is longer than most manufactured products
- C13: construction projects usually are evaluated subjectively
- C14: participants differ for each project
- C15: projects range from minor works to complex megaprojects
- C16: most megaprojects overrun on costs & behind schedule
- C17: uniqueness of construction made project management a distinct discipline
- C18: project management pulls together functional disciplines
- C19: project management finds optimum way to integrate the team with complication of alliances/ partnerships
- C20: project management services often provided by companies that have not had any educational training
- C21: project managers tend to put more effort into task-related activities
- C22: project managers have many project management standards and techniques

Leadership
- C23: project managers have to be managers & leaders
- C24: Recognition that project managers need better management and leadership skills rather than technical skills
- C25: project management leadership skills cannot be taught

Literature Sources	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25
Hammer (1996)	✓	✓																							
Macgee (1994)			✓																						
Pheng and Peh (1996)				✓																					
Turner (2005)					✓																				
Ogunlana et al (2002)						✓																			
Hawkins and Rajagopal (2005)						✓													✓						
Pheng and Chuan (2006)							✓																		
Zou et al (2007)								✓																	
Van Donk and Riezebos (2005)						✓			✓	✓															
Arditi and Gunaydin (1997)											✓	✓	✓	✓											
Ruuska et al (2009)															✓										
Flyvbjerg et al (2003b)																✓									
Toor and Ofori (2008)																	✓								
Morris and Hough (1993)																		✓							
Odusami et al (2003)																				✓					
Bryde (1997)																					✓				
Morris et al (2006)																						✓			
Lee (2009)																							✓		
Dulaimi (2005)																								✓	
Hales (2008b)																									✓

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Appendix A.5: Literature based analysis of construction – dimensions of project success (organisations, management and leadership)

Construction - Dimensions of Project Success (Organisations, Management and Leadership)

Category	Dimension	Literature source(s) ticked
Leadership	successful project managers have firstly leadership skills	MPA (2006e)
Leadership	project manager leadership qualities are critical	Pheng and Chuvessiriporn (1997)
Leadership	leaders armed with a style which meets the demands of any given situation	Hersey et al (2007)
Leadership	successful organisations have dynamic and effective leadership	Oguniana et al (2002)
Leadership	project managers to understand the importance of organisational politics	Pinto (2000)
Project management and managers	act quickly to resolve internal/external conflicts	Goodwin (1993)
Project management and managers	project managers to have both hard and soft skills	Hawkins and Rajagopal (2005)
Project management and managers	pick the right project manager with knowledge, skill, motives, traits & self-concept	Toney (1997)
Project management and managers	project managers manage & build teams, are technically skilled, coordinate, lead, communicate, negotiate, solve problems & integrate	Hawkins and Rajagopal (2005); Brunetto and Farr-Wharton (2003); Edum-Fotwe and McCaffer (2000); Oguniana et al (2002)
Project management and managers	project managers need to be decisive and have trust, respect, commitment and passion	Reiss (1996); Pilcher (1992); Hales (2008b)
Project management and managers	project management must take a holistic view of the project and anticipate rather than react to situations	Hawkins and Rajagopal (2005)
Project management and managers	project properly defined and appropriately scoped	Joham et al (2009)
Project management and managers	Participants to own and be accountable for project deliverables	Hawkins and Rajagopal (2005)
Project management and managers	total project orientation is required rather than present fragmented approach	Winch et al (1998)
Organisations	different people have to be managed differently	Drucker (1999)
Organisations	no one way to manage an organisation	Winch et al (1998)
Organisations	continuous loop of feedback	Knights and McCabe (1996)
Organisations	clear communication	Kerzner (1995); Brunetto and Farr-Wharton (2003); Daniel (1990)
Organisations	dedication and hard work of people	Jones (1995)
Organisations	quality is an essential part of modern management	Bendell (1991); Drucker (1999)
Organisations	organisational transparency & someone in command	Drucker (1999)
Organisations	people to apply 'soft' interpersonal skills and underlying attitudes	Jones (1995)
Organisations	network structures for flexibility and return of experience	Kets de Vries (1999)
Organisations	project team-based organisations for project management effectiveness	Hyvari (2006)
Organisations	project matrix for project management effectiveness	Hyvari (2006)
Organisations	transparent and clear chains of command	Drucker (1999)
Organisations	organisational structure from the outset of a project	Bendell (1991)
Organisations	organisation structure needs a hierarchy	Pirsig (1999)

Literature Sources: Pirsig (1999), Bendell (1991), Drucker (1999), Hyvari (2006), Kets de Vries (1999), Jones (1995), Kerzner (1995), Armstrong (1970), Knights and McCabe (1996), Lavender (1996), Winch et al (1998), Hawkins and Rajagopal (2005), Joham et al (2009), Reiss (1996), Brunetto and Farr-Wharton (2003), Edum-Fotwe and McCaffer (2000), Oguniana et al (2002), Pilcher (1992), Toney (1997), Spencer and Spencer (1993), Daniel (1990), Goodwin (1993), Hales (2008b), Pinto (2000), Hersey et al (2007), Pheng and Chuvessiriporn (1997), MPA (2006e)

Appendix A.6: Literature based analysis of key dimensions of construction – the environment

Key dimensions of Construction – The Environment

Literature Sources	External: projects, organisations, people and contracts do not exist in a vacuum	External: many construction projects overrun because of circumstances external to the project	External: construction is influenced by & constantly interacting with the environment	External: internal environments are every bit as complex as external environments	Internal: many differences between project and organisational environments	Internal: managers can 'control' (to some degree) the work environment	Internal: project management process is controlled largely from outside of the project organisation	Globalisation: everyone is part of the same complex, increasingly interlinked world	Globalisation: construction is on a path towards globalisation
Lenard and Bajaj (1999)	✓								
Morris and Hough (1997)		✓							
Baloi and Price (2003)			✓						
Langford et al (1995)				✓					
Anderson and Cook (1995)					✓				
Thaimhain (2004)						✓	✓		
Kets de Vries (1999)								✓	
Hawkins and Rajagopal (2005)								✓	
Hall and Jaggar (1998)									✓

Appendix A.7: Literature based analysis of construction – dimensions of project success (the environment)

Construction - Dimensions of Project Success (The Environment)									
External		Internal			Globalisation				
efficiency effectiveness of construction depends upon how project managers scan the external environment and identify the critical factors and adapt their organisations accordingly	project manager skills and the ability to relate to their external environment and the people around them	create the right internal environment where project teams can motivate themselves	team environments to be supported	ensure organisational ambience is conductive to effective teamwork when imposing external project management processes	organisations and project managers to have a more holistic perspective on the big picture	PBIJV project managers to be global managers with an awareness & understanding of national cultural issues	global managers with open minds, respect how different countries do things, generous and patient and handle the frustrations of language barriers	Instil global mind-set at all levels of organisation	build a transnational top management with people of different nationalities, with their different backgrounds and experiences
✓										Baloi and Price (2003)
	✓									Johnson and Scholes (1993)
		✓								Dixon (1989)
			✓	✓						Thaimhain (2004)
					✓					Hawkins and Rajagopal (2005)
						✓				Hall and Jaggar (1998)
							✓			Taylor (1991)
								✓		Kets de Vries (1999)
									✓	Drucker (1997)

Literature Sources

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Appendix A.8: Literature based analysis of key dimensions of the Asian Way – Asian Ways

Key dimensions of the Asian Way – Asian Ways

Asian Ways

Key dimension	Pye (1985)	Quigley (1999)	Pheng and Hua (2001)	Kim (2001)	Peters (1994)	Raftery et al (1998)	Kets de Vries (1999)	Davis and Schulte (1997)	Hammer (1996)	Backman (1999)	Stockdale (1997)	Chu (1994)	Wee and Lan (1999)	Triandis (1995)	Pirsig (1999)	Bhikkhu (1999)
business and politics are intertwined in Asia																✓
avoiding direct questions												✓				
saying no is often avoided															✓	
face is particularly important in China & Thailand								✓								
Asians avoid public confrontation													✓	✓		
the Asian way is team orientated												✓				
Asian employees trust each other											✓					
culture of harmony, dependence & community is the Asian Way										✓						
popular mode to carry out big business in Asia is through conglomerates										✓						
open criticism discouraged where open confrontation and losing face are taboos									✓							
Asian businesses have a strong commitment to their staff, suppliers & customers								✓								
Asia is unlike the West and has fundamentally different ways of working							✓									
Asia has over 50% of the world's population						✓										
Asia is a tremendously diverse region with all world religions & host of cultures					✓											
financial crisis in mid 90s had devastating impact on the economies of Thailand and South Korea				✓												
financial crisis in Asia in mid 90s			✓													
rapid economic growth from 60s through to mid 90s	✓	✓														
Literature Sources																

Appendix A.8: Literature based analysis of key dimensions of the Asian Way – Asian Ways (continued)

Key dimensions of the Asian Way – Asian Ways

Korea and Korean Ways

	Breen (2004)	The Kyunghyang Shinmum	The Korean Herald	The Korea Times	Bstieler and Hemmert (2008)	Kim (2001)	Wee and Lan (1999)	Kang et al (2006a)	Magoshi and Chang (2009)	Brown (1995)	Rugman and Oh (2008)	Jacobs et al (1995)
the Confucian ethic is part of the business culture in Korea												✓
Korean standards commonly used in Korea are very different from internationally certified ones											✓	
Korea needs to globalise its business practices and standards											✓	
Korea is a third tier quality leader										✓		
typical Korean approach to work is quantity not quality	✓											
working environment is highly competitive, causing excessive strain and stress among employees									✓			
Koreans decision-making prowess in business is fast through hard work and long hours								✓				
personal relations take precedence over competence	✓											
Korea has a top-down management style	✓											
Korean *chaebols* are not among the most profitable companies in the world and pursue market share over profitability							✓					
anyone from the outside of the corporate family receives an extremely low level of trust	✓											
Koreans can be surprisingly aggressive, as opposed to being assertive, in their business dealings	✓											
Koreans are the most individualistic of all East Asians	✓											
South Korea can be full of bureaucratic red tape and cumbersome procedures						✓						
Koreans as Confucians display an instinct for harmonious relationships	✓											
multi-religious society	✓											
Korean managers more accustomed to and more tolerant of conflict in their business relations					✓							
leading Korean *chaebols* have a better global reputation than their country				✓								
Koreans consider bluffing & sugar-coating skills more important than honesty			✓									
Koreans value prestigious colleges, connections, wealth, family background & good looking faces		✓										
Koreans maintain this isolationistic mentality	✓											
Koreans are a very proud, complex and distinct people	✓											
Koreans are predatory, nationalistic and xenophobic	✓											

Literature Sources

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Appendix A.8: Literature based analysis of key dimensions of the Asian Way – Asia Ways (continued)

Key dimensions of the Asian Way – Asian Ways

Thailand and Thai Ways

Dimension	Clad (1989)	Haley et al (1999)	*Economist Country Survey of Thailand*	Swierczek (1997)	Bhikkhu (1999)	Phongpaichit and Baker (1998)	Faccio (2003)	Phongpaichit and Piriyarangsan (1994)	Backman (1999)	Asiamoney (1999f)	Davis and Schulte (1997)	Toews and McGregor (1998)	Ogunlana et al (2002)	Krasachol and Tannock (1999)
TQM has had little impact and except for a handful of large Thai-owned groups														✓
choice of managers in Thailand is based upon experience and network													✓	
Thai are managers friendly and show a caring attitude towards staff to ensure none of the team loses *face*												✓		
Thai staff are not empowered and will usually not take initiatives												✓		
deference to elders												✓		
Thai management style is authoritarian												✓		
Thai managements have paternalistic responsibilities											✓			
most Thai managements report to a single family or trust										✓				
the King of Thailand one of the richest men in the world									✓					
ordinary people still look up to government officials as patrons or masters								✓						
two-fifths of companies listed in the Thai stock market have political links							✓							
Thailand has a pro-business government with potentially good partners and responsive suppliers						✓								
Thai population are Buddhists, which is a faith based on reason					✓									
Thai people hold back unless directly asked a question				✓										
centralised & paternalistic state			✓											
only country in SE Asia to escape colonial rule in the 19th and 20th centuries		✓												
Thailand is considered as one of the Four Farms	✓													

Literature Sources

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Appendix A.9: Literature based analysis of key dimensions of the Asian Way – Asian Culture

Key dimensions of the Asian Way – Asia Culture

Asian Culture

	Hofstede (2009)	Breen (2004)	Kang et al (2006a)	Bstieler and Hemmert (2008)	Asiamoney (1999d)	Toews and McGregor (1998)	Teerajetgul (2009)	Wong and Maher (1998)	Haley and Tan (1996)	Pheng (1996)	Swierczek (1997)	Davis and Schulte (1997)
corruption in Korea and Thailand is significant												✓
gift giving is acceptable and considered important in Asia				✓								
Asian business style concentrates on avoidance of confrontation and conflict											✓	
avoidance of litigation is predominant in Asia										✓		
signed contracts may often begin, rather than end, negotiations									✓			
Asians think Westerners are rigid on agreements, individualistic, insensitive and uncultured								✓				
construction projects in Thailand have inadequate and ineffective control strategies for project management problems							✓					
Thais' can work practically nonstop this may be because an important cultural point is that for Thais, fun and cooperation are interrelated with work						✓						
time is based on Buddhist beliefs and not viewed as linear but as an infinite cycle of seasons						✓						
Thai culture is based on the patronage system					✓							
honesty is valued by Koreans, although not as highly as loyalty		✓										
Korean networks work on trust, although instant trust will rarely be achieved				✓								
fundamental culture of doing business in South Korea is gift giving and hospitality				✓								
Koreans devote themselves to family and ascribe to collective values		✓										
Korean business culture is typified by the status of seniority of men		✓										
Korea is not a culture in which diversity is seen as a value or an ideal		✓										
Thailand's highest Hofstede dimension is for both Uncertainty Avoidance and Power Distance & lowest is Individualism	✓											
Korea's highest Hofstede dimension is Uncertainty Avoidance & lowest is Individualism	✓											
Cultural differences are a nuisance at best and often a disaster	✓											

Literature Sources

Appendix A.10: Literature based analysis of key dimensions of the Asian Way – Overseas Chinese

Key dimensions of the Asian Way – Overseas Chinese

Key dimension	Freidmann (2001)	Wong and Maher (1998)	The Korea Times	Pang et al (1998)	Chu (1994)	Woo and Prud'homme (1999)	Backman (1999)	Haley et al (1999)	McCloud (1986)	Riggs (1966)	Lee (1996)	Micklethwait and Wooldridge (1996)	Pheng and Leong (2000)
Overseas Chinese													
the OC tend to establish property-related businesses													✓
OC family businesses operate as centralised dictatorships												✓	
cultural influences greatly impact business activities between OC											✓		
trusting, long-term friendship is important in Chinese business								✓					
OC core competencies include their decision-making styles, control over information & networks								✓					
OC businessmen stay hands-on								✓					
relied on basic family-based business practices								✓					
founders of OC companies had little formal education								✓					
Thai business is dominated by five big OC business families							✓						
an exchange of money for political protection should not be considered as a corrupt practice										✓			
close links to the political elite									✓				
there are dominant groups within the OC							✓						
OC command their local economies in countries dominated by other ethnic groups							✓						
Asia's OC are the most commercially successful minority group the world has ever seen & are at the fore of what happens in Asia							✓						
China and the Chinese													
patience but the ability to endure the unendurable					✓								
self-restraint by controlling emotions				✓									
time is not viewed as a cost				✓									
ambiguities - Chinese say *yes* to foreigners even though they mean *no*						✓							
in business the Chinese have certain protocols and cultural traits such as respect, ambiguity, self-control and relentless patience						✓							
Chinese place virtue over technical ability					✓								
Chinese believe success is only achieved if one is at harmony with oneself and one's peers				✓									
global power is moving from the West to the East			✓										
China has never been a democracy		✓											
China and Korea share a common cultural tradition centred in China	✓												

Literature Sources

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Appendix A.10: Literature based analysis of key dimensions of the Asian Way – Overseas Chinese (continued)

Key dimensions of the Asian Way – Overseas Chinese (Overseas Chinese)	Haley et al (1999)	Lasserre et al (1998)	Wee and Lan (1999)	Woo and Prud'homme (1999)	Chen (1994)	Micklethwait and Wooldridge (1996)	Chu and MacMurray (1993)	Wong et al (1998)	Jacobs et al (1995)	Backman (1999)	Kets de Vries (1999)	Drucker (1997)	Xiaotong Fei (1992)
OC companies buy the loyalty of their managers through substantial annual performance bonuses, generous retirement schemes	✓												
the primary factor required for the formation of OC networks is trust	✓												
OC network companies exhibit substantial weaknesses and lack procedural controls, processes and structures	✓												
Chinese networks view morality as contextual													✓
the OC network is held together by ties of kinship and mutual trust of family members											✓		
foreign companies have no legitimate position within the OC family because they are not related								✓					
most of the major OC companies have survived only as far as the second generation													
when OC companies grow into conglomerates the OC family business model is in danger	✓												
OC businesses are built on family and as such nepotism is a necessity											✓		
Confucianism has at its core distinct ethics – dignity & respect; harmony & loyalty; righteousness and honour									✓	✓			
Confucianism forms the basis of most business practices in China									✓				
Confucianism has been the root of the Chinese mind-set for more than 2500 years								✓					
rapid growth of many OC family businesses in Asia has been built upon their amazing speed of decision-making							✓						
OC lobby for or against laws, regulations, and privileged positions	✓												
OC business practices do not differ from Western practices strategically, but operationally	✓												
OC businesses are based around negotiating relationships not contracts						✓							
for the Chinese ethical behaviour is about the 'proper way' to relate with one another					✓								
Guanxi for personal relationships or influential connections				✓									
development of the right business connections			✓										
importance of friends		✓											
speed and knowledge	✓												

Literature Sources

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Appendix A.10: Literature based analysis of key dimensions of the Asian Way – Overseas Chinese (continued)

Key dimensions of the Asian Way – Overseas Chinese

Chinese Management and War Strategies	Wang et al (1998)	Lo et al (1998)	Chu (1994)	The Art of War	Thirty-Six Stratagems	Wee and Lan (1999)	The Book of the Five Rings
perceive those things which cannot be seen							✓
understanding for everything						✓	✓
become acquainted with every art						✓	✓
do not drive an enemy into a corner					✓		
the 36 Strategems comprise of advantageous, opportunistic, offensive, confusion, deception and desperate stratagems					✓		
maintain structured lines of communication				✓			
information is very important				✓			
necessary to have local guides, good intelligence & plans of neighbouring states				✓		✓	
do not over complicate the situation				✓			
be wise and flexible in the face of countless changes				✓			
a good general is prudent, though not hesitant				✓			
orders need to be consistent				✓			
clear reporting hierarchy where members are properly trained				✓			
holistic way to approach the world with no divisions between business, the art of war, philosophy and spirituality			✓				
military concepts have gained acceptance in the business environment and management generally		✓					
workers lack the concept of quality	✓						
paternalistic management style	✓						

Literature Sources

Appendix A.11: Literature based analysis of the Asian Way – dimensions of project success

The Asian Way - Dimensions of Project Success

Category	Dimension	Kets de Vries (1999)	Woo and Prud'homme (1999)	Hall and Jaggar (1998)	Schneider (1995)	Swierczek (1997)	Hawkins and Rajagopal (2005)	Kang et al (2006a)	East Asia Analytical Unit (1995)	Backman (1999)	Lee (1996)	Haley et al (1999)	Davis and Schulte (1997)	Haley (1997)
Overseas Chinese	attain personal trust to enable communication which will be open, candid and emotional											✓		
	do not repeatedly ask same question to an OC partner on issues that have already been responded to; can be interpreted as mistrust		✓											
	contacts and networks are built by people not companies													✓
	build non-commercial ties of friendship or family in the short-term to build a good business relationship in the long-term											✓		
	the importance of good connections has to be recognised at an early stage												✓	
	develop patience, harmony and being humble to gain respect		✓											
	sincere towards others with no deception & always seeking for mutual benefits, trustworthy and kind										✓			
	follow the Confucian code for social conduct - obedience to, and respect for, superiors and parents; duty to the family; loyalty to friends; hierarchy at work; reverence to age, rank and status; and sincerity, humility and courtesy		✓											
	remember that the older OC people often enjoy significantly greater power and influence than their official titles may indicate											✓		
	acceptance of OC business practices such as the importance of verbal promises										✓			
	foreign companies need to display friendship and trust in negotiations with OC		✓											
	to survive and thrive in Asia businesses must forge good political connections									✓				
	understand the Chinese way to run business								✓					
Asian Culture	project team to be trained to at least understand the cultural reasoning behind ethical decision-making							✓						
	focus on compromise and collaboration					✓								
	four principle parameters for any negotiation in Asia is location, agenda, timing and approach and the optimum grouping for any negotiation							✓						
	the importance of *kriengchai* in Thai culture needs to be understood					✓								
	cultural differences need to be taken as a positive not a negative				✓									
	good awareness and understanding of cultural issues			✓										
Asian Ways	help Asians to win *face*	✓												
	an understanding by Westerners that things can be done in different ways	✓												
														Literature Sources

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Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction

Key dimensions of QM & TQM in construction — Quality

Key dimension of QM & TQM in construction (Quality)	Literature Source(s) marked
the rise of Japanese dominance in terms of quality owes much to the influence of quality gurus like Deming and Juran	McCabe (1996)
quality gurus: QM needs both top management support and to recognise the importance of customer relationships	Marinez-Laurente (1998)
to attain project quality it is essential that project owners liaise closely with designers and contractors during both the design and construction phases	Issak (1982); Bubshait and Al-Musaid (1992)
QC is more easily applied to the mass production environment of the manufacturing industry rather than unique construction projects	Arditi and Gunaydin (1997)
important to apply QC to services as it is to apply QC to products	Rosander (1985)
provide design walk-throughs at strategic points	Morris and Hough (1993)
it is essential to have a QA system in place from the start of projects	Ashworth (1996)
quality systems are desirable	Jackson (1986)
if a formal policy is not established by the management of the organisation, then the personnel will individually select their own	Crosby (1980)
quality must be designed and manufactured into the project because it cannot be inspected into the project	Bendell et al (1994)
project quality does not start on site, it starts at the beginning of a project with the formation of the owner's core technical project management team	Bendell et al (1994)
management of the quality process through all stages of off and on-site production should prevent errors to eradicate defects, reworking and ultimate waste	Crosby (1980)
construction has many different people looking after & supposedly sharing responsibility for quality	Lock (1997)
quality has several facets such as quality of design, materials, workmanship, performance and service provided to customers	Chaudron (1998)
quality is a moving target and in order to meet dynamic customer needs, the organisation itself must be dynamic	Chaudron (1998)
challenge is to understand the needs of the customer and the customer's definition of quality	Beveridge (1991)
problems in quality are caused by management and the systems they create	Ho (1999a)

Literature Sources: Ho (1999a), Beveridge (1991), Chaudron (1998), Flanagan and Tate (1997), Lock (1997), Crosby (1980), Preece and Tarawneh (1998), Bendell et al (1994), Jackson (1986), Ashworth (1996), Morris and Hough (1993), Rosander (1985), Arditi and Gunaydin (1997), Issak (1982), Bubshait and Al-Musaid (1992), Marinez-Laurente (1998), McCabe (1996)

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Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction (continued)

Key dimensions of QM & TQM in construction — Quality

Statement	McCabe (1998)	Micklethwait and Wooldridge (1996)	Pindur et al (1995)	Dean and Evans (1994)	Martinez-Lorente et al (1998)	Baxter and Macfarlane (1992)	Castle (1996)	Bendell (1991)	Kondo (1989)	Crosby (1984)	Peters (1997)	Bishop and Gembey (1985)	Paterran (1986)	de Bono (1998)	Martin (1995)	Pheng and May (1997)	McNamara (1998)	Ho (1999b)	Calavera (1998)
average company requires up to ten years to set up a complete quality system																			✓
5-S is an Asian quality system approach based upon the fundamentals of simplicity																		✓	
a holistic understanding of a system is a precondition to understanding any part of that system and a proper understanding is the only way to deliver a KISS based system																	✓		
many organisations implementing a quality system overlook non-technical considerations with too much emphasis placed on technical issues																✓			
the aim of project managers should be to strive for system simplicity															✓				
the search for ultimate perfection may add more complexity to a system than it is worth														✓					
despite all the rhetoric about quality, systems and TQM, money is the most important material													✓						
systems are only as good as the people responsible for making them work												✓							
leadership is central to the quality improvement process											✓								
the performance standard for quality is zero defects										✓									
when giving work instruction, clarify the true aims of the work									✓										
quality does not only mean the quality of product, but also of after sales service, quality of management, the company itself and the human being								✓											
Feigenbaum highlighted the absolute need for all those in an organisation to work in an integrated way							✓												
inclusion by management of the supply chain and workers in the decision making process						✓													
build-in quality at an early stage					✓														
ensure clear communication of messages because employees at different levels of an organisation speak in different *languages*				✓															
management's job to help employees work smarter, not harder			✓																
Deming pioneered TQM		✓																	
Deming caused major companies in the West to re-visit their ways of working	✓																		

Literature Sources

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Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction (continued)

Key dimensions of QM & TQM in construction — Quality

Key dimension	Sherif (1996)	Peters (1997)	Spekknink (1995)	Cheetham (1998)	Pheng and Omar (1997)	The Financial Times (1997)	Lavender (1996)	Crosby (1980)	McCabe (1998)	EFQM Business Excellence Model (1999)	Arditi and Gunaydin (1997)	Jung and Wang (2006)	Stitt (2002)	Chileshe and Watson (1998)	Kaynak (2003)
TQM as a holistic management philosophy															✓
TQM provides an holistic framework for the operational activities of construction enterprises														✓	
TQM is about the quality of management and to a much lesser extent the management of quality													✓		
management leadership can be considered as the most influential element of QM systems											✓				
a TQM approach is the big picture									✓						
EFQM Business Excellence Model is simple, holistic, dynamic, flexible and innovative										✓					
without quality managers initiatives to bring about organisational change using QM is extremely unlikely to succeed									✓						
quality is the responsibility of everyone in a project team								✓							
QM involves close, trusting and non-confrontational relationships with customers, suppliers and subcontractors						✓									
the more complex the organisational structure, the more effective its QM system is likely to be					✓										
QM systems must be allowed to evolve to accept changes to the internal and external environments through communication, building coalitions, working teams, persistence and perseverance				✓											
the construction industry has been driven to adopt QM systems and procedures in the main by major project owners				✓											
to effectively maintain a QM system in the construction industry, a balance of the technical requirements and theoretical approach is necessary			✓												
ISO 9000 on the company notepaper does not make their product the best available, it just means their systems are good		✓													
ISO standards are about how you do things, not what you do		✓													
construction project benchmarking needs to address the uniqueness of the construction working environment	✓														
benchmarking only works if consistent methods of measuring process performance can be developed and introduced	✓														

Literature Sources

Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction (continued)

Key dimensions of QM & TQM in construction — Quality

Key dimension	Dale et al (1997)	Cook (1996)	Pheng and Peh (1996)	Arditi and Gunaydin (1997)	Shammas-Toma et al (1998)	Olomolaiye et al (1998)	Stamatis (1994)	Barkley and Saylor (2001)	Bryde (1997)	Kets de Vries (1999)	Morrison (1998)	Hawkins and Rajagopal (2005)
natural desire to establish superiority over a project owner or a JV partner should not interfere with overall project success												✓
a relationship needs to be formed with the client to understand their requirements and expectations where openness is an essential ingredient to build trust											✓	
everyone in the project team has a responsibility to satisfy the customer's wishes										✓		
project management can focus on management methods, such as planning, monitoring and controlling									✓			
TQM can provide the vision and goal of benchmarked best practice								✓				
project management principles are recommended as an optimum tool for implementing TQM and managing people with cross-functional and multi-disciplined backgrounds from various organisations							✓					
project managers required more than just traditional QA and QC to deliver a quality project					✓							
Japanese construction companies embraced the TQM approach in the 70s						✓						
project relationships are frequently antagonistic with accusations, recriminations and blame common					✓							
project culture, far from being devoted to quality improvement, is dominated by short-term financial considerations, reflected in uncooperative and suspicious relationships					✓							
cost & profitability are the forces driving the policies					✓							
elements of TQM in the construction process: management commitment & leadership, training, teamwork, supplier involvement & customer service				✓								
the biggest obstacle to the adoption of TQM is the basic forms of construction contracts			✓									
TQM at the construction site is not only possible but has proven to be a success with improved co-operation where a positive team attitude has been developed		✓										
the participation of all the employees is essential for the success of TQM & they should share the same objectives	✓											

Literature Sources

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Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction (continued)

Key dimensions of QM & TQM in construction — Quality

Key dimensions of QM and TQM in construction	Dale et al (1997)	Martin (1995)	Kets de Vries (1999)	Ashford (1989)	Chu (1994)	Imai (1986)	Pheng and Omar (1997)	Clarke and Clegg (1998)	Langford et al (1992)	McCabe (1998)	Crosby (1980)	Bank (2000)	Chaudron (1998)	Johnson and Scholes (1993)	Preece and Tarawneh (1998)	Dti (1992)
the key resource in any company is the people within it																✓
the construction industry traditionally has a poor reputation for customer service															✓	
involvement of contractors with their specialist subcontractors and suppliers at the design stage of a project is of benefit to the project team														✓		
focus on the quality of relationships between every stakeholder who contributes to project success								✓								
many organisations in the construction industry treat subcontractors and suppliers with indifference & hostility													✓			
a project team with a TQM approach requires mutually exclusive individual qualities so that the team members possess opposing qualities with a full range of personal and technical characteristics												✓				
being part of a team is not a natural human function											✓					
teamwork is the best way to achieve project success										✓						
the Asian way for teamwork is based on consensus, however, effective teamwork will be achieved only if team members are bound together by mutually established internal goals rather than just by contractual arrangements									✓							
training as part of a project team and not as individuals within a team is also important								✓								
TQM training plans must be targeted at every level of an organisation							✓									
quality begins and ends with training						✓										
work can be the greatest teacher					✓											
people need to be educated & trained to understand a TQM approach to work effectively & efficiently				✓												
setting simple goals is important to develop a culture of continuous improvement			✓													
processes need continual adjustment to meet continual changes in the environment		✓														
have measures in place to assess the status of customer satisfaction from the viewpoint of the customer	✓															

Literature Sources

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Appendix A.12: Literature based analysis of key dimensions of QM and TQM in construction (continued)

Key dimensions of QM & TQM in construction — Quality

Statement	Dale et al (1997)	Cook (1996)	Puri (1992)	Mortiboys and Oakland (1991)	Oakland (1995)	McCabe et al (1997b)	Olomolaiye et al (1998)	Quazi and Padibjo (1997)	Marinez-Laurente (1998)	Watson (1999a)	Bounds et al (1994)
Team structures should be integrated with flat hierarchy with team emphasis										✓	
reduce complexity										✓	
problem areas in TQM implementation: insufficient commitment by senior management, incorrect corporate culture, no formal implementation strategy, narrowly based training, lack of effective communication; and not concentrating on organisational strengths									✓		
issues related with organisational culture are further compounded by different country cultures as different countries with different cultures apply TQM in different ways								✓			
TQM implementation requires a complete turnaround in corporate culture and management approach							✓				
the toughest obstacle faced by organisations on the road to TQM are not technical issues, but the cultural ones						✓					
a successful TQM programme should have committed leadership, training, teamwork, supplier involvement, improved communication, clearly identified vision, mission and goals & focus on employees							✓				
whilst leadership must come from the top real change will be generated by those at the bottom						✓					
the only way forward for TQM is to maintain the KISS principle and maintain TQM approach simplicity					✓						
successful implementation of TQM requires soft outcomes of TQM, but the soft must be complemented by some hard management necessities such as systems, teams & tools				✓							
TQM approach requires the setting up of management systems for all the processes & continuously improving management systems			✓								
it is substantially harder for the larger organisations to achieve TQM		✓									
procedures used in small family type organisation s are not suitable once the organisation becomes large	✓										

Literature Sources

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Appendix A.13: Literature based analysis of key dimensions of IJVs and consortia – JVs

Key dimensions of IJVs and consortia – JVs

		Adobor (2004)	Raftery et al (1998)	Toews and McGregor (1998)	Hung et al (2002)	Latham (2000)	Baxendale and Pugh (2002)	Palles-Clark (1998)	Porter (1995)	Critchlow (1998)	Pokora and Hastings (1995)	Dalle and Potts (1999)	MPA (2004)	Williams and Lilley (1993)	Norwood and Mansfield (1999)
JVs	an integrated JV is the most acceptable approach for civil engineering works														✓
	JVs do not have to establish a separate legally incorporated company														✓
	JVs tend to work only as long as partners believe there are mutual benefits													✓	
	JVs formed because projects are becoming more complex wide-ranging need for technical knowledge, strength in numbers, spread risk, acquire local knowledge and reduce competition													✓	
	JV organisation structures are not the easiest forms of organisation to manage and operate											✓			
	temporary arrangements for the purpose of usually carrying out a major project											✓			
Partnering	partnering arrangements offer less adversarial relationships, increased openness & trust and improved quality and profitability										✓				
	make the best use of resources in each company to the mutual benefit of both companies							✓							
	seven pillars of partnering — strategy; membership; equity; integration; benchmarks; project processes; and feedback							✓							
	a partnering arrangement is in itself no substitute for a binding contract									✓					
	if partnering is dealt with as just a legal arrangement or a philanthropic relationship, it will fail								✓						
	typical partner selection criteria includes ability to work co-operatively, integrate with others, communicate, understand concept of partnering & shared benefits							✓							
	the construction industry has taken longer than other industries for partnering to become an acceptable method of procurement						✓								
	construction needs a holistic approach based on teamwork, of which the best method is partnering					✓									
	companies in Asia actively seek JV partners that can bring financing, technical, marketing and management skills			✓	✓										
	the easiest way for foreign contractors to operate in domestic markets with local construction companies		✓												
	JVs have become a popular method of entry into foreign markets	✓													

Literature Sources

Appendix A.13: Literature based analysis of key dimensions of IJVs and consortia – JVs (continued)

Key dimensions of IJVs and consortia – JVs — JVs

Dimension	Norwood and Mansfield (1999)	Ozorhon et al (2007)	Chen et al (1994)	Hung et al (2002)	MPA (2004)	Ang et al (2000)	Dalle and Potts (1999)	Williams and Lilley (1993)	Porter (1995)	Haley (1994)	Chen et al (1994)	Luo (2009a)
ownership on IJVs is either symmetric or asymmetric												✓
core features of JV arrangements: joint and several liability & sharing of control over operations and ownership of capital									✓	✓		
business partnerships are generally formed with a view to achieving future profitability								✓				
trust & mutual dependency important for JV partner selection							✓					
important for selecting a JV partner: ability, experience and skills; financial suitability; similar business philosophy and concepts; strength of partner's willingness to form a JV; spoken language; and competiveness gained/resources/track record						✓						
guidelines for choosing the right partners: compatibility, competencies & commitment						✓						
know what you are signing up to					✓							
select the right people					✓							
IJV deadlock resolution structure in place					✓							
give IJV project staff clear leadership and guidance from the very start					✓							
agree the IJV work share					✓							
decide & understand the implications of IJV ownership split					✓							
define your objectives and the project relationships					✓							
fundamentals of the IJV arrangement should be clearly presented, understood and signed-off					✓							
differences in management style between JV partners can be a key issue in failure in PBJVs				✓								
construction is a typical user of PBJVs - predetermined, limited life span, well-defined objectives, rapid decision-making, less time to understand the local environment & culture-related conflicts				✓								
foreign exchange and IJV partner objections being the major problems encountered by IJVs			✓									
failure rate of IJVs is high		✓										
IJV are formed to make use of existing geographical or regional base & to access greater manpower from local partner	✓											
non-integrated JVs are employed frequently within construction	✓											

Literature Sources

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Appendix A.13: Literature based analysis of key dimensions of IJVs and consortia – JVs (continued)

Key dimensions of IJVs and consortia – JVs — JVs

Dimension	Fiol and Lyles (1985)	Lyles (1994)	Chen (2003)	Ang et al (2000)	Swierczek (1997)	Glaister and Buckley (1998)	Chalos (1998)	Lu and Hébert (2005)	Wang et al (1998)	Behrman (1970)	Friedman and Beguin (1971)	Yan and Gray (2001)	Parkhe (1993)	Tretiak and Holzmann (1993)	Schaan (1988)
management control requires knowledge of events														✓	✓
greater equity control may be preferable if a foreign partner has little or no local experience								✓							
decision-making in IJVs is dominated by the chief representative of the majority equity owner													✓		
most important JV control mechanisms: right to appoint general manager										✓					
the more critical resources an IJV partner can position into an IJV, the more powerful they can become												✓			
methods to achieve a certain amount of JV control: the right to veto the decisions of JV managers & representation in JV management bodies										✓	✓				
mechanisms for controlling a JV: majority shareholding; right to appoint personnel to key positions; board meetings; limit issues requiring the unanimous agreement of the board members; capital budgeting and resource allocation & policies and procedures									✓						
ensure the local partners have a high enough level of ownership to generate an incentive for them to properly contribute								✓							
the main mechanism of JV control is through majority ownership or voting control by virtue of majority equity share holdings						✓									
management control between partners is by reference to percentage of equity ownership							✓								
2 fundamental tiers of JV control: at shareholder level and at management level						✓									
process of building a new organisational culture can lead to many conflicts and JV failure					✓										
personal relationships and maintaining mutual benefits far outweigh contractual compliance				✓											
establishment of a hierarchical mechanism as the common frame of reference for promoting communications and adjustments			✓												
contract-based strategic alliance projects are favoured in dynamic and complex environments			✓												
standard informal rules regarding the percentage of equity, levels of JV management participation and decision-making control		✓													
establishment of standard operational rules of thumb	✓														

Literature Sources

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Appendix A.13: Literature based analysis of key dimensions of IJVs and consortia – JVs (continued)

Key dimensions of IJVs and consortia – JVs — JVs

Literature Sources

Key dimension	Wang et al (1998)	Ascot (1994a)	Hawkins and Rajagopal (2005)	Dalle and Potts (1999)	Williams and Lilley (1993)	Schaan (1988)	Pearce (1997)	Shore and Cross (2005)	Cray and Mallory (1998)	Adobor (2004)	Lu and Hébert (2005)	Swierczek (1997)	Hanvanich et al (2003)
cultural differences can over time increasingly create ambiguities and lead to mistrust in a partnership and result to ever increasing conflict													✓
the majority of problems encountered on IJVs with overseas contractors arose from cultural difficulties				✓									
worldwide trends of JVs are increasing, but with very unsatisfactory results												✓	
address the large knowledge barriers at play regarding local culture and social norms											✓		
culture plays a significant part in determining the shape of IJVs, the partners involved and, most importantly, their chances of success									✓	✓			
many JV partners from the West perceive themselves to be superior to their Asian counterparts								✓					
many megaprojects have failed because foreigners approach situations based on the assumption that what worked at home will work anywhere			✓										
individuals from different countries and different cultures can work together								✓					
the more partners involved in a JV the more likelihood there is for differing company politics to be at play							✓						
where different nationalities with differing mother-tongues are involved language problems can greatly effect both spoken and written situations						✓							
above all other JV management problems is the issue of communication and feedback where language and culture can become insurmountable barriers to project success					✓								
main JV problem factors: lack of strong and effective leadership; the preliminary agreement; the partner selection; and lack of trust between partners				✓									
projects allowed appropriate degree of autonomy so that the interests of the project are served			✓										
when challenged by internal agendas and priorities, managers seconded to JVs do not see the project as their prime responsibility			✓										
many companies are not truly prepared to accept the *joint* aspect of JVs		✓											
right to appoint key positions will enable the JV partner to implement their chosen systems to manage and operate the JV	✓												

Appendix A.13: Literature based analysis of key dimensions of IJVs and consortia – JVs (continued)

Key dimensions of IJVs and consortia – JVs

JVs

Dimension	Ascot (1994a)	Pheng and Leong (2000)	Chiao et al (2009)	Breen (2004)	Grisham (2008)	Van Maanen and Barley (1985)	Van Marrewijk and Veenswijk (2006)	Kaufmann and O'Neill (2007)	Shore and Cross (2005)	Pokora and Hastings (1995)	Pang et al (1998)	Hawkins and Rajagopal (2005)
it is a general rule of thumb in recent times for Western companies not to impose their ways of working on their international partners												✓
project managers need to understand that when country and project cultures come into conflict, the first is likely to override values in the second											✓	
there can still be significant differences between company cultures within the same country										✓		
look beyond stereotypical cultural views and discover the real beliefs of project team members					✓							
national culture plays an important role in how project managers think and make decisions									✓			
IJVs are notoriously difficult to manage								✓				
complex projects with their varying JV partner cultures can result in a project culture which is totally unique with difficulties to manage						✓	✓					
construction is about temporary organisations where culture also develops at a project level					✓							
Koreans expect more logic and fairness from a Western person than from a Korean				✓								
foreigners in Asia often feel that they can never really be accepted as anything but an outsider				✓								
impact of cultural distance upon IJV partner relationship needs to be addressed			✓									
sufficient amount of time and attention should be paid to identify the cultural differences		✓										
agree on the definition of short, medium and long-term with JV partners	✓											

Literature Sources

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Appendix A.14: Literature based analysis of IJVs and consortia – dimensions of project success (JVs)

IJVs and Consortia - Dimensions of Project Success (JVs)

Category	Dimension	Palles-Clark (1998)	Child and Faulkner (1998)	Williams and Lilley (1993)	Ang et al (2000)	Spekman et al (1996)	Cray and Mallory (1998)	Adobor (2004)	McCabe (1998)
Partnering	selection of the most appropriate partner for any given situation	✓							
Partnering	initial cooperation between the partners requires clarity amongst the team of the partnering goals		✓						
Partnering	realistic set of goals in a partnering charter		✓						
Partnering	selection of an appropriate partner is of paramount importance			✓					
Partnering	relying upon a cooperative relationship which has been fostered between the partners rather than reliance on legal obligations				✓				
JVs	essential to properly support initial organisational stage					✓			
JVs	critical that teamwork between JV partners is sponsored by senior management						✓		
JVs	teamwork requires project goals to be consistent between JV personnel without interference from the home office						✓		
JVs	attitude of JV personnel needs to be positive and consist of a mindset that home office influences should not override ultimate project success for the JV						✓		
JVs	JV manager needs good political skills, particularly related to influence tactics							✓	
JVs	important is to ensure that an organisation's culture matches the environment in which it operates								✓
JVs	cross-cultural management skills and the ability to adapt to the challenges of working in a multi-cultural project environment							✓	
JVs	project managers to have an unbiased understanding of their own national culture & knowledge of the local country culture and business systems of JV partners							✓	

Literature Sources

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Appendix A.15: Literature based analysis of key dimensions of IJVs and consortia – Multi-national teams

Key dimensions of IJVs and consortia – Multi-national teams

Dimension	Tan and Chong (2003)	Machiavelli (1515)	Davis and Schulte (1997)	Van Donk and Riezebos (2005)	Drucker (1999)	Harrison et al (1996)	Kasvi et al (2003)	Fong (2003)	Damm and Schindler (2002)	Hanvanich et al (2003)	Hales (2008a)	Hawkins and Rajagopal (2005)
not only do different people have to managed differently but different groups of people in the project team have to be managed differently, and that same group of people even have to be managed differently at different times					✓							
common on megaprojects to have major disputes which arise based simply on personal preferences of two opposing individuals												✓
there will be differences of opinion between people												✓
people do not think alike											✓	
management style and knowledge processes are inclined to follow the host-country partner's existing practices										✓		
build a database/system for sharing knowledge between JV partners									✓			
knowledge management in a project also consists of knowledge creation, administration and dissemination							✓					
processes for knowledge creation in multidisciplinary project teams: boundary crossing; knowledge sharing; knowledge generation; knowledge integration & collective project learning								✓				
the collaborative nature of such multidisciplinary project teams is essential								✓				
megaprojects and their organisations require exceptionally efficient knowledge management							✓					
self-efficacy and self-monitoring are key expat attributes to assist with cross-cultural adjustment						✓						
expat personality characteristics generally need to include: broad- or open-mindedness and cultural empathy; creativity and a sense of humour; integrity and sincerity; and stress tolerance						✓						
knowledge worker expats need to be mobile and know more about their job than their project manager boss does					✓							
PBIJVs need to know the knowledge inventory available in the JV				✓								
project managers do not have an induction period to learn about their new environment			✓									
the only real way to learn about another country with its differing language, customs, or laws is to reside there		✓										
to survive one has to adapt to the surroundings	✓											
Literature Sources												

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Appendix A.15: Literature based analysis of key dimensions of IJVs and consortia – Multi-national teams (continued)

Key dimensions of IJVs and consortia – Multi-national teams

Dimension	Tan and Chong (2003)	Cascio and Shurygailo (2003)	MPA (2006b)	Kasvi et al (2003)	Eskerod and Blichfeldt (2005)	Seijts and Gandz (2009)	Norwood and Mansfield (1999)	Wong and Cheung (2004)	Black et al (2000)	Hawkins and Rajagopal (2005)	Dalle and Potts (1999)	Adobor (2004)	Gale and Luo (2004)	Rooke and Seymour (1995)	Ng et al (2007)
trust not greatly reflected in IJV performance even when partners culturally compatible															✓
the temporary nature of projects with their temporary working relationships presents obstacles to the development of trust and co-operation														✓	
continuous display of cooperative behaviour should facilitate the building of trust in a JV												✓			
absolute need for language fluency between the partners												✓			
trust is a very important aspect of cross-cultural JVs													✓		
a technically competent manager will find it easier to build a trusting relationship with his or her counterparts on the JV team												✓			
get to know the partner before entering into the agreement to develop trust											✓				
trying to maintain open dialogue with partners maintaining confidentiality is a challenge										✓					
the most important factor in the JV is to capture trust								✓	✓						
team building will positively promote the development of the project team, which can be assisted at the outset through training courses to prepare people for working on JVs							✓								
one-teaming is required to achieve an integrated project team & requires team leadership; team composition; extensive practice as a coherent team & clear team norms around communication and process								✓							
project team composition is *not* static and project managers need to actively manage variations in project team compositions					✓										
people in megaprojects are not only organisationally but also geographically dispersed and with their diverse backgrounds may speak several languages				✓											
dispersed project teams tend to work best where team knew each other previously or have the time to get to know each other; shared background of knowledge; common task focus and clear project identify; robust procedures for planning, executing, monitoring and improving; and technologies are used to support work			✓												
team members must interact; work toward common, specified goals that they value; & they must adapt to circumstances in order to reach these goals		✓													
people at all levels of a project need to feel valued	✓														

Literature Sources

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Appendix A.15: Literature based analysis of key dimensions of IJVs and consortia – Multi-national teams (continued)

Key dimensions of IJVs and consortia – Multi-national teams

	de Man and Roijakkers (2009)	Luo (2009a)	Luo (2009b)	Kets de Vries (1999)		
boundary spanners protect the integrity and well-being of the project, their company and the IJV		✓				
boundary spanners need to bridge the cultural divide		✓				
communication, competence, credibility, consistency, support, respect & honesty are key parts of the trust equation				✓		
companies and people are rarely not opportunistic when participating in IJVs, but opportunism can be controlled if DJ is in place			✓			
DJ provides an *ex post* way for overcoming ambiguities and limitations of contracts			✓			
contracts provide an *ex ante* framework, which can guide cooperation between partners			✓			
formal procedures and criteria used in the decision-making process need to be transparent, adjustable and correctable; unbiased, representative and non-discriminatory to each party, and in accordance with contractual specifications		✓				
companies use complex combinations of control and trust in a complementary way	✓					
Literature Sources						

Appendix A.16: Literature based analysis of key dimensions of IJVs and consortia – Information, communication & coordination

Key dimensions of IJVs and consortia – Information, communication & coordination

Statement	Kaufmann and O'Neill (2007)	Love et al (2000)	Cheetham (1998)	Edum-Fotwe et al (2000)	Hawkins and Rajagopal (2005)	Pindur et al (1995)	MPA (2006b)	Ling et al (2007)	Kets de Vries (1999)	Morris and Hough (1997)	Back et al (1995)	Williams and Lilley (1993)	Lyons (2009a)	Whyte et al (1999)	Hossain and Wu (2009)	Drucker (1999)	Reiss (1995)	Tseng et al (2004)
the age of e-projects in the e-world on megaprojects is becoming more commonplace																		✓
too much information can destroy communication																	✓	
IT so far has been a producer of data rather than a producer of information																✓		
individuals centrally positioned in a network show more coordination															✓			
essential that computer system compatibility is achieved within the PBIJV for effective project coordination														✓				
IT provides a sound platform for great benefits in both improved productivity and improved communications													✓					
the greater the cultural gap between the potential PBIJV partners, the more difficult it will be to achieve project success												✓						
partners to be on same page: integrated information communication; controlled flow of information; and optimisation of information flow											✓							
effective project managers must place the issue of communication at the top of their list of concerns					✓													
communication is not just about the constant flow of good information but about the quality and pattern of information flow										✓								
common project language should be established									✓									
possible misunderstandings can simply arise from language differences								✓										
establishment of effective communication within teams is essential in managing and motivating dispersed teams on global projects							✓											
constant communication is vital					✓													
effective communications are required up, down and across the organisation in a matrix configuration and are critical when dealing with project teams					✓													
information is a vital resource in order to carry out operational tasks in an effective & efficient manner				✓														
construction industry suffers greatly to maintain contemporaneous project records			✓															
contract documents often have missing, conflicting and erroneous information resulting in major rework & customer dissatisfaction		✓																
good information through clear communication and coordination on projects is essential	✓																	

Literature Sources

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Appendix A.16: Literature based analysis of key dimensions of IJVs and consortia – Information, communication & coordination (continued)

Key dimensions of IJVs and consortia – Information, communication & coordination

Dimension	MPA (2007c)	Kasvi et al (2003)	Brister (1995)	Baldwin (1996)	Pietroforte (1997)	Back et al (1995)	Witty (2008)	Wang et al (2009)	Sullivan and Beach (2009)	Biggs (2000)	MPA (2006b)	Lyons (2009b)	Seijts and Gandz (2009)	Zaccaro and Bader (2003)	Lee (2009)
uncertainty and misunderstandings can occur over a short time period in virtual environments due to the absence of FTF communication															✓
allocate office space for visiting e-team members															✓
important that e-leaders provide the same level of communication and access to both groups of the team to maintain one-teaming principles															✓
commonplace on PBIJVs to have a hybrid of remote and non-remote team members															✓
facilitating an effective exchange of information on an e-project can reduce any feelings of isolation there may be within certain quarters of the e-team															✓
e-leadership is for leaders who have to carry out leadership through electronic channels and virtual communication														✓	
a leader must constantly communicate with team													✓		
project intranets, dashboards and e-mails are clear favourites forms of CM communication												✓			
Web 2.0 collaborative systems are dynamic and can be continually modified											✓				
companies are increasingly relying on CM communication for collaboration among employees										✓					
PMIS offers consistency of reporting and information to all project team members based on project access rights									✓						
e-mail communication has become an essential part of day-to-day project operations & is an important vehicle for both organisational & interpersonal communication									✓						
to send e-mails on megaprojects can facilitate quick communications with multiple team members							✓								
electronic communication is the means of establishing better project integration					✓	✓									
construction has a lack of standardisation which at times leads to poor communication & integration				✓											
systems be they paper or paperless are still managed by people			✓												
the management of computer files is as unsystematic as document management		✓													
IT is simply a tool of management and should be seen and used as such	✓														

Literature Sources

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Appendix A.16: Literature based analysis of key dimensions of IJVs and consortia – Information, communication & coordination (continued)

Key dimensions of IJVs and consortia – Information, communication & coordination	Zaccaro and Bader (2003)	Hill et al (2009)	Cranford (1996)	Ariss et al (2002)	Pierce and Henry (1996)	Lee (2009)
ethical decisions related to computer use were in the first instance influenced by an individual's own personal code					✓	
ultimate ethical behaviour should be the responsibility of all e-team members						✓
a formal code of computer ethics can have an impact on ethical decision-making					✓	
ensure there is no unethical use of project data by e-team members who have access to sensitive and confidential materials				✓		
the ease with which e-team members can dispatch communications, at times needs restraint and reflection			✓			
e-leader has to build sufficient trust in the e-team so that a proper exchange of information can take place	✓					
trust and collaborative behaviours are the two enabling conditions for success in CM groups		✓				
development of trust takes time and for e-teams in different geographic locations it will take longer than if in the same geographic location	✓					
Literature Sources						

Appendix A.17: Literature based analysis of IJVs and consortia – dimensions of project success (Information, communication & coordination)

IJVs and Consortia - Dimensions of Project Success (Information, communication & coordination)

JVs

Dimension	Dow (2006)	Norwood and Mansfield (1999)	Dale and Potts (1999)	Kets de Vries (1999)	MPA (2007a)	Eskerod and Blichfeldt (2005)	Richards (1995)	Hawkins and Rajagopal (2005)	Seijts and Gandz (2009)	Tam (1999a)	Stockdale (1998b)
two-way communication and feedback											✓
communication is always the key factor leading to the success or failure of a construction project										✓	
hire or promote people who have proven track records									✓		
integration of the project activities of people in a dispersed project team									✓		
project manager establishes the initial core project team								✓			
project teams are given full responsibility and trust, and empowered to define their own objectives and limitations							✓				
the management of HR and facilitating team-building exercises						✓					
people principles for success: define your goal; create a flexible strategy; have confidence; overcome fear of failure; motivation; the need to be appreciated; and celebrate success					✓						
key people must have integrity, enthusiasm and humour				✓							
continuous review of JV performance			✓								
outstanding level of communication			✓								
effective leader in whom the parties have the utmost confidence			✓								
team formed on project specific basis working in the same office			✓								
correct structuring of the management team			✓								
identification of limit of powers of personnel			✓								
early establishment of management hierarchy			✓								
good communication links must be maintained between partners		✓									
management must not allow an 'us and them' attitude to develop within a JV		✓									
JV management must keep control of a JV at all times		✓									
project managers with past experiences on IJVs and in particular with regard to contextual ambiguity	✓										

Literature Sources

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APPENDIX A.18

Key dimensions of construction

The Industry has the following characteristics and is part of the backdrop of what needs to be managed:

1. traditional **INFLEXIBLE**
2. conservative **INFLEXIBLE**
3. pragmatic **INFLEXIBLE**
4. dirty **INEFFICIENT**
5. low **skill**ed **INEFFICIENT**
6. accident prone **INEFFICIENT**
7. dynamic and **complex** environments **COMPLEX**
8. **unique COMPLEX**
9. many products **COMPLEX**
10. broad range of **people COMPLEX**
11. **fragmented** nature of delivery e.g. subcontractors **COMPLEX**
12. reluctant to change **INFLEXIBLE**
13. clients at the core **COMPLEX**
14. domain of men **INFLEXIBLE**
15. strongly classed **INFLEXIBLE**
16. military in structure **INFLEXIBLE**
17. **complex** structure **COMPLEX**
18. rework is an accepted common practice **INFLEXIBLE**
19. project stakeholders with own aspirations/agendas **NON-COLLABORATIVE**
20. activities take place in an uncontrolled environment **COMPLEX**
21. activities are discontinuous, dispersed, diverse and distinct **COMPLEX**
22. construction contracts are problematical **COMPLEX**
23. culture of confrontation and conflict **NON-COLLABORATIVE**
24. adversarial **NON-COLLABORATIVE**
25. inadequacies in project management **skill**s **INEFFICIENT**
26. unethical practices **INEFFICIENT**

Organisations, Management and Leadership have the following characteristics and are part of the backdrop of what needs to be managed:

1. organisational project structures in pyramid format **STRUCTURED**
2. organisation structures with functional departments **STRUCTURED**
3. site operatives focused on building not management **AWARENESS**
4. projects frequently undertaken by firms with no formal management **training TRAINED**
5. planning, organising, implementing, controlling **STRUCTURED**
6. typical project is a **complex** system of units and **people HOLISTIC**
7. projects are one-off endeavours **SIMPLE**
8. dynamic organisation structures **DYNAMIC**
9. collaboration of different disciplines **COLLABORATIVE**
10. **people** tend to work shorter periods for individual companies **ACCEPTANCE**
11. construction projects are **unique FLEXIBLE**
12. life-cycle of a construction project is longer than most manufactured products **AWARENESS**
13. construction projects usually are evaluated subjectively **AWARENESS**
14. participants differ for each project **ACCEPTANCE**
15. projects range from minor works to **complex** megaprojects **ADAPTIVE**
16. most megaprojects overrun on costs and behind schedule **STRUCTURED**
17. **unique**ness of construction made project management a distinct discipline **SIMPLE**
18. project management pulls together functional disciplines **COLLABORATIVE**
19. project management finds optimum way to **integrate** the **team** with complication of alliances/ partnerships **COLLABORATIVE**
20. project management services often provided by companies that have not had any educational **training** to provide such a service **TRAINED**
21. project managers tend to put more effort into task-related activities **AWARENESS**
22. project managers have many project management standards and techniques **STRUCTURED**
23. project managers have to be managers and leaders **CORRECT RECRUITING**
24. recognition that project managers need better management and leadership **skill**s rather than technical **skill**s **RECRUITMENT SAVVY**
25. project management leadership **skill**s cannot be taught **RECRUITMENT SAVVY**

The environment has the following characteristics and is part of the backdrop of what needs to be managed:

1. projects, organisations, **people** and contracts do not exist in a vacuum **AWARENESS**
2. many construction projects overrun because of circumstances external to the project **FLEXIBLE**
3. construction is influenced by and constantly interacting with the environment **AWARENESS**

4. internal environments are every bit as **complex** as external environments **SIMPLE**
5. many differences between project and organisational environments **FLEXIBLE**
6. managers can 'control' (to some degree) the work environment **SYSTEMS**
7. project management process is controlled largely from outside of the project organisation **CLARITY & UNDERSTANDING**
8. everyone is part of the same **complex**, increasingly interlinked world **COLLABORATIVE**
9. construction is on a path towards globalisation **AWARENESS**

Dimensions of construction project success

The Industry has the following characteristics associated with project success:

1. project partnering **COLLABORATIVE**
2. alternative dispute resolution **COLLABORATIVE**
3. JVs between developers and contractors **COLLABORATIVE**
4. non adversarial contracts **COLLABORATIVE**
5. committed leadership **COMMITED**
6. focus on the customer **COLLABORATIVE**
7. **integrate**d processes and **team**s **COLLABORATIVE**
8. **quality** driven agenda **STRUCTURED**
9. commitment to **people** **COMMITED**
10. clients set clear objectives **CLARITY & UNDERSTANDING**
11. **integrate**d approach with common goals **COLLABORATIVE**
12. more standardisation to improve communication **SIMPLE**
13. **integrate**d **team**s **COLLABORATIVE**
14. construction contracts that justly reward performance **RIGHTEOUSNESS**
15. construction contracts need to be properly administered **CORRECT RECRUITING**
16. **trust** is the cornerstone of any successful contract **COLLABORATIVE**
17. collaborating more effectively **COLLABORATIVE**
18. properly defining the project requirements at the outset **CLARITY & UNDERSTANDING**
19. the **people** involved in making the project happen **RECRUITMENT SAVVY**
20. reversal of adversarial relationships and practices **COLLABORATIVE**
21. achieve understanding of what clients expect **CLARITY AND UNDERSTANDING**

Organisations, Management and Leadership have the following characteristics associated with project success:

1. organisation structure needs a hierarchy **STRUCTURED**
2. organisational structure from the outset of a project **STRUCTURED**
3. transparent and clear chains of command **CLARITY AND UNDERSTANDING**
4. project matrix for project management effectiveness **STRUCTURED**
5. project **team**-based organisations for project management effectiveness **STRUCTURED**
6. network structures for flexibility and return of experience **COLLABORATIVE**
7. **people** to apply 'soft' interpersonal **skill**s and underlying attitudes **COLLABORATIVE**
8. organisational transparency and someone in command **CLARITY AND UNDERSTANDING**
9. **quality** is an essential part of modern management **STRUCTURED**
10. dedication and hard work of **people** **RECRUITMENT SAVVY**
11. clear communication **CLARITY AND UNDERSTANDING**
12. continuous loop of feedback **CLARITY AND UNDERSTANDING**
13. no one way to manage an organisation **FLEXIBLE**
14. different **people** have to be managed differently **AWARENESS**
15. total project orientation is required rather than present **fragmented** approach **COLLABORATIVE**
16. participants to own and be accountable for project deliverables **COLLABORATIVE**
17. project properly defined and appropriately scoped **CLARITY AND UNDERSTANDING**
18. project management must take a **holistic** view of the project and anticipate rather than react to situations **FLEXIBLE**
19. project managers need to be decisive and have **trust**, respect, commitment and passion **DECISIVENESS**
20. project managers manage and build **team**s, are technically **skill**ed, coordinate, lead, communicate, negotiate, solve problems and **integrate** **RECRUITMENT SAVVY**
21. pick the right project manager with knowledge, **skill**, motives, traits and self-concept **RECRUITMENT SAVVY**
22. project managers to have both *hard* and *soft* **skill**s **RECRUITMENT SAVVY**
23. act quickly to resolve internal/external conflicts **DECISIVENESS**
24. project managers to understand the importance of organisational politics **AWARENESS**
25. successful organisations have dynamic and effective leadership **RECRUITMENT SAVVY**
26. leaders armed with a style which meets the demands of any given situation **AWARENESS**
27. project manager leadership qualities are critical **RECRUITMENT SAVVY**
28. successful project managers have firstly leadership **skill**s **RECRUITMENT SAVVY AND TRAINED**

The environment has the following characteristics associated with project success:

1. efficiency effectiveness of construction depends upon how project managers scan the external environment and identify the critical factors and adapt their organisations accordingly **AWARENESS**
2. project manager **skill**s and the ability to relate to their external environment and the **people** around them **AWARENESS**
3. create the right internal environment where project **team**s can motivate themselves **COLLABORATIVE**
4. **team** environments to be supported **COMMITED**
5. ensure organisational ambience is conductive to effective **team**work when imposing external project management processes **COLLABORATIVE**
6. organisations and project managers to have a more **holistic** perspective on the big picture **AWARENESS**
7. PBIJV project managers to be global managers with an awareness and understanding of national cultural issues **AWARENESS**
8. global managers with open minds, respect how different countries do things, generous and patient and handle the frustrations of language barriers **RECRUITMENT SAVVY**
9. instil global mind-set at all levels of organisation **AWARENESS**
10. build a transnational top management with **people** of different nationalities, with their different backgrounds and experience **COLLABORATIVE**

APPENDIX A.19

Key dimensions of the Asian Way

Asian ways have the following characteristics and is part of the backdrop of what needs to be managed:

1. rapid economic growth from 60s through to mid-90s **DYNAMIC**
2. financial crisis in Asia in mid 90s **DYNAMIC**
3. financial crisis in mid 90s had devastating impact on the economies of Thailand and South Korea **DYNAMIC**
4. Asia is a tremendously diverse region with all world religions and host of cultures **COMPLEX**
5. Asia has over 50% of the world's population **DIVERSE**
6. Asia is unlike the West and has fundamentally different ways of working **INFLEXIBLE**
7. Asian businesses have a strong commitment to their staff, suppliers and customers **LOYAL**
8. open criticism discouraged where open **confrontation** and losing *face* are taboos **NON-CONFRONTATIONAL**
9. popular mode to carry out big business in Asia is through **conglomerates** **CONGLOMERATE-BASED**
10. culture of harmony, dependence and community is the Asian Way **COLLECTIVE**
11. Asian employees **trust** each other **LOYAL**
12. the Asian way is team orientated **COLLECTIVE**
13. Asians avoid public **confrontation** **NON-CONFRONTATIONAL**
14. *face* is particularly important in China and Thailand **RESPECTFUL**
15. saying no is often avoided **NON-CONFRONTATIONAL**
16. avoiding direct questions **NON-CONFRONTATIONAL**
17. business and **politics** are intertwined in Asia **HOLISTIC**

Korea and Korean ways have the following characteristics and is part of the backdrop of what needs to be managed:

1. Koreans are predatory, nationalistic and xenophobic **PROTECTIVE**
2. Koreans are a very proud, **complex** and distinct people **COMPLEX**
3. Koreans maintain this isolationistic mentality **PROTECTIVE**
4. Koreans value prestigious colleges, connections, wealth, family background and good looking faces *GUANXI-BASED*
5. Koreans consider bluffing and sugar-coating skills more important than honesty **WINNING**
6. leading Korean *chaebols* have a better global reputation than their country **CONGLOMERATE-BASED**
7. Korean managers more accustomed to and more tolerant of conflict in their business relations **COMPETITIVE**
8. multi-religious society **DIVERSE**
9. Koreans as Confucians display an instinct for harmonious relationships **COLLECTIVE**
10. Korea can be full of bureaucratic red tape and cumbersome procedures **BUREAUCRATIC**
11. Koreans are the most individualistic of all East Asians **INDIVIDUALISTIC**
12. Koreans can be surprisingly aggressive, as opposed to being assertive, in their business dealings **COMPETITIVE**
13. anyone from the outside of the corporate family receives an extremely low level of **trust** **PROTECTIVE**
14. Korean *chaebols* are not among the most profitable companies in the world and pursue market share over profitability **DOMINANT**
15. Korea has a top-down management style **AUTHORITARIAN**
16. personal relations take precedence over competence *GUANXI-BASED*
17. Koreans decision-making prowess in business is fast through hard work and long hours **HARD-WORKING**
18. working environment is highly competitive, causing excessive strain and stress among employees **COMPETITIVE**
19. typical Korean approach to work is quantity not quality **SPEED**
20. Korea is a third tier quality leader **SPEED**
21. Korea needs to globalise its business practices and standards **PROTECTIVE**
22. Korean standards commonly used in Korea are very different from internationally certified ones **INDIVIDUALISTIC**
23. the Confucian ethic is part of the business culture in Korea **CONFUCIANISM-BASED**

Thailand and Thai ways have the following characteristics and is part of the backdrop of what needs to be managed:

1. Thailand is considered as one of the Four Farms **WILLING TO LEARN**
2. only country in SE Asia to escape colonial rule in the 19th and 20th centuries **TRADITIONAL**
3. centralised and paternalistic state **PATERNAL**
4. Thai people hold back unless directly asked a question **NON-CONFRONTATIONAL**
5. Thai population are Buddhists, which is a faith based on reason **REALISTIC**
6. Thailand has a pro-business government with potentially good partners and responsive suppliers **POLITICAL POWER**
7. two-fifths of companies listed in the Thai stock market have **political** links **POLITICAL POWER**
8. ordinary people still look up to government officials as patrons or masters **PATERNAL**

9. the King of Thailand one of the richest men in the world **PATERNAL**
10. most Thai managements report to a single family or **trust** **PATERNAL**
11. Thai managements have paternalistic responsibilities **PATERNAL**
12. Thai management style is authoritarian **STRUCTURED**
13. deference to elders **PATERNAL**
14. Thai staff are not empowered and will usually not take initiatives **PATERNAL**
15. Thai are managers friendly and show a caring attitude towards staff to ensure none of the team loses *face* **PATERNAL**
16. choice of managers in Thailand is based upon experience and network **CORRECT RECRUITING**
17. TQM has had little impact and except for a handful of large Thai-owned groups **NOT QUALITY FOCUSED**

Asian culture has the following characteristics and is part of the backdrop of what needs to be managed:

1. cultural differences are a nuisance at best and often a disaster **COMPLEX**
2. Korea's highest Hofstede dimension is Uncertainty Avoidance and lowest is Individualism **COLLECTIVE**
3. Thailand's highest Hofstede dimension is for both Uncertainty Avoidance and Power Distance and lowest is Individualism **COLLECTIVE**
4. Korea is not a culture in which diversity is seen as a value or an ideal **COLLECTIVE**
5. Korean business culture is typified by the status of seniority of men **STRUCTURED**
6. Koreans devote themselves to family and ascribe to collective values **COLLECTIVE**
7. fundamental culture of doing business in South Korea is gift giving and hospitality **COLLECTIVE**
8. Korean networks work on **trust**, although instant **trust** will rarely be achieved **TRUST**
9. honesty is valued by Koreans, although not as highly as loyalty **LOYAL**
10. Thai culture is based on the patronage system **LOYAL**
11. time is based on Buddhist beliefs and not viewed as linear but as an infinite cycle of seasons **HOLISTIC**
12. Thais' can work practically nonstop this may be because an important cultural point is that for Thais, fun and cooperation are interrelated with work **COLLECTIVE**
13. construction projects in Thailand have inadequate and ineffective control strategies for project management problems **HOLISTIC**
14. Asians think Westerners are rigid on agreements, individualistic, insensitive and uncultured **HOLISTIC**
15. signed contracts may often begin, rather than end, negotiations **HOLISTIC**
16. avoidance of litigation is predominant in Asia **COLLECTIVE**
17. Asian business style concentrates on avoidance of **confrontation** and conflict **NON-CONFRONTATIONAL**
18. gift giving is acceptable and considered important in Asia **COLLECTIVE**
19. **corrupt**ion in Korea and Thailand is significant **CORRUPT**

Overseas Chinese influences have the following characteristics and is part of the backdrop of what needs to be managed:

1. China and Korea share a common cultural tradition centred in China **HARMONY**
2. China has never been a democracy **BUREAUCRATIC**
3. global power is moving from the West to the East **DYNAMIC**
4. Chinese believe success is only achieved if one is at harmony with oneself and one's peers **HARMONY**
5. Chinese place virtue over technical ability **VIRTUE**
6. in business the Chinese have certain protocols and cultural traits such as respect, ambiguity, self-control and relentless patience **RESPECT / AMBIGUITY/ SELF-CONTROL**
7. ambiguities - Chinese say *yes* to foreigners even though they mean *no* **AMBIGUITY**
8. time is not viewed as a cost **AWARENESS**
9. self-restraint by controlling emotions **SELF-RESTRAINT**
10. patience but the ability to endure the unendurable **PATIENT**
11. Asia's OC are the most commercially successful minority group the world has ever seen and are at the fore of what happens in Asia **AWARENESS**
12. OC command their local economies in countries dominated by other ethnic groups **AWARENESS**
13. there are dominant groups within the OC **AWARENESS**
14. close links to the **political** elite **AWARENESS**
15. an exchange of money for **political** protection should not be considered as a **corrupt** practice **AWARENESS**
16. Thai business is dominated by five big OC business families **CONGLOMERATE-BASED**
17. founders of OC companies had little formal education **AWARENESS**
18. relied on basic family-based business practices **SIMPLE**
19. OC businessmen stay hands-on **AWARENESS**
20. OC core competencies include their decision-making styles, control over information and networks **DECISIVE / INFORMATION / *GUANXI-BASED***
21. **trust**ing, long-term friendship is important in Chinese business ***GUANXI-BASED***
22. cultural influences greatly impact business activities between OC **AWARENESS**
23. OC family businesses operate as centralised dictatorships **BUREAUCRATIC**
24. the OC tend to establish property-related businesses **TRADITIONAL**
25. speed and knowledge **SPEED-BASED / KNOWLEDGE**
26. importance of friends ***GUANXI-BASED***
27. development of the right business connections ***GUANXI-BASED***
28. *Guanxi* for personal relationships or influential connections ***GUANXI-BASED***

29. for the Chinese ethical behaviour is about the 'proper way' to relate with one another **HARMONY**
30. *OC businesses are based around negotiating relationships not contracts* ***GUANXI-BASED***
31. OC business practices do not differ from Western practices strategically, but operationally **AWARENESS**
32. OC lobby for or against laws, regulations, and privileged positions **AWARENESS**
33. rapid growth of many OC family businesses in Asia has been built upon their amazing speed of decision-making **SPEED-BASED**
34. **Confucianism** has been the root of the Chinese mind-set for more than 2500 years **AWARENESS**
35. **Confucianism** forms the basis of most business practices in China **AWARENESS**
36. **Confucianism** has at its core distinct ethics – dignity and respect; harmony and loyalty; righteousness and honour **AWARENESS**
37. OC businesses are built on family and as such nepotism is a necessity **FAMILY**
38. when OC companies grow into **conglomerates** the OC family business model is in danger **CONGLOMERATE-BASED**
39. most of the major OC companies have survived only as far as the second generation **AWARENESS**
40. foreign companies have no legitimate position within the OC family because they are not related **PROTECTIONIST**
41. the OC network is held together by ties of kinship and mutual **trust** of family members **LOYAL**
42. Chinese networks view morality as contextual **HARMONY**
43. OC network companies exhibit substantial weaknesses and lack procedural controls, processes and structures **UN-STRUCTURED**
44. the primary factor required for the formation of OC networks is **trust** **TRUST**
45. OC companies buy the loyalty of their managers through substantial annual performance bonuses, generous retirement schemes **LOYAL**
46. paternalistic management style **PATERNALISTIC**
47. workers lack the concept of quality **SPEED-BASED**
48. military concepts have gained acceptance in the business environment and management generally **AWARENESS**
49. **holistic** way to approach the world with no divisions between business, the art of war, philosophy and spirituality **HOLISTIC**
50. clear reporting hierarchy where members are properly trained **BUREAUCRATIC**
51. orders need to be consistent **CONSISTENCY**
52. a good general is prudent**,** though not hesitant **DECISIVE**
53. be wise and flexible in the face of countless changes **FLEXIBLE**
54. do not over complicate the situation **SIMPLE**
55. necessary to have local guides, good intelligence and plans of neighbouring states **AWARENESS**
56. information is very important **INFORMATION**
57. maintain structured lines of communication **STRUCTURED**
58. the 36 Strategems comprise of advantageous, opportunistic, offensive, confusion, deception and desperate stratagems **AWARENESS**
59. do not drive an enemy into a corner **HARMONY**
60. become acquainted with every art **HOLISTIC**
61. understanding for everything **HOLISTIC**
62. perceive those things which cannot be seen **AWARENESS**

Dimensions of construction project success in Asia

Asia has the following characteristics associated with project success:

1. an understanding by Westerners that things can be done in different ways **FLEXIBLE**
2. help Asians to win *face* **FLEXIBLE**
3. good awareness and understanding of cultural issues **AWARENESS**
4. cultural differences need to be taken as a positive not a negative **FLEXIBLE**
5. the importance of *kriengchai* in Thai culture needs to be understood **AWARENESS**
6. four principle parameters for any negotiation in Asia is location, agenda, timing and approach and the optimum grouping for any negotiation **AWARENESS**
7. focus on compromise and collaboration **HARMONY / COLLABORATION**
8. project team to be trained to at least understand the cultural reasoning behind ethical decision-making **TRAINED**
9. understand the Chinese way to run business **AWARENESS**
10. *to survive and thrive in Asia businesses must forge good* **political** *connections* ***GUANXI-BASED***
11. foreign companies need to display friendship and **trust** in negotiations with OC **AWARENESS**
12. acceptance of OC business practices such as the importance of verbal promises **ACCEPTANCE**
13. remember that the older OC people often enjoy significantly greater power and influence than their official titles may indicate **AWARENESS**
14. follow the **Confucian** code for social conduct - obedience to, and respect for, superiors and parents; duty to the family; loyalty to friends; hierarchy at work; reverence to age, rank and status; and sincerity, humility and courtesy **CONFUCIANISM-BASED**
15. sincere towards others with no deception and always seeking for mutual benefits, **trust**worthy and kind **TRUST**
16. develop patience, harmony and being humble to gain respect **HARMONY**
17. *the importance of good connections has to be recognised at an early stage* ***GUANXI-BASED***

18. *build non-commercial ties of friendship or family in the short-term to build a good business relationship in the long-term* **GUANXI-BASED**
19. contacts and networks are built by people not companies **AWARENESS**
20. do not repeatedly ask same question to an OC partner on issues that have already been responded to; can be interpreted as mis**trust** **NON-CONFRONTATIONAL**
21. attain personal **trust** to enable communication which will be open, candid and emotional **TRUST**

APPENDIX A.20

Key dimensions of QM and TQM in construction

Quality has the following characteristics and is part of the backdrop of what needs to be managed:

1. **problems** in quality are caused by management and the systems they create **CORRECT SYSTEMS**
2. challenge is to understand the needs of the customer and the customer's definition of quality **AWARENESS**
3. quality is a moving target and in order to meet **dynamic** customer needs, the organisation itself must be **dynamic DYNAMIC**
4. quality has several facets such as quality of design, materials, workmanship, performance and service provided to customers **HOLISTIC**
5. construction has many different **people** looking after and supposedly sharing responsibility for quality **COLLECTIVE / ONE-TEAMING**
6. management of the quality process through all stages of off and on-site production should prevent errors to eradicate defects, reworking and ultimate waste **CORRECT SYSTEMS**
7. project quality does not start on site, it starts at the beginning of a project with the formation of the owner's core technical project management **team CORRECT INITIAL SET-UP**
8. quality must be designed and manufactured into the project because it cannot be inspected into the project **CORRECT SYSTEMS**
9. if a formal policy is not established by the management of the organisation, then the personnel will individually select their own **CORRECT INITIAL SET-UP**
10. quality systems are desirable **CORRECT SYSTEMS**
11. it is essential to have a QA system in place from the start of projects **CORRECT INITIAL SET-UP**
12. provide design walk-throughs at strategic points **CORRECT SYSTEMS**
13. important to apply QC to services as it is to apply QC to products **HOLISTIC**
14. QC is more easily applied to the mass production environment of the manufacturing industry rather than unique construction projects **AWARENESS**
15. to attain project quality it is essential that project owners liaise closely with designers and contractors during both the design and construction phases **COLLABORATION**
16. quality gurus: QM needs both top management support and to recognise the importance of customer relationships **COLLECTIVE / ONE-TEAMING / COLLABORATION**
17. the rise of Japanese dominance in terms of quality owes much to the influence of quality gurus like Deming and Juran **AWARENESS**
18. Deming caused major companies in the West to re-visit their ways of working **AWARENESS**
19. Deming pioneered TQM **AWARENESS**
20. management's job to help employees work smarter, not harder **COLLECTIVE / ONE-TEAMING**
21. ensure clear communication of messages because employees at different levels of an organisation speak in different *languages* **COLLECTIVE / ONE-TEAMING**
22. build-in quality at an early stage **CORRECT INITIAL SET-UP**
23. inclusion by management of the supply chain and workers in the decision making process **COLLECTIVE / ONE-TEAMING**
24. Feigenbaum highlighted the absolute need for all those in an organisation to work in an integrated way **COLLECTIVE / ONE-TEAMING**
25. quality does not only mean the quality of product, but also of after sales service, quality of management, the company itself and the human being **HOLISTIC**
26. when giving work instruction, clarify the true aims of the work **CLARITY**
27. the performance standard for quality is zero defects **CORRECT SYSTEMS**
28. leadership is central to the quality improvement process **DECISION-MAKING**
29. systems are only as good as the **people** responsible for making them work **CORRECT RECRUITING / CORRECT TRAINING**
30. despite all the rhetoric about quality, systems and TQM, money is the most important material **AWARENESS**
31. the search for ultimate perfection may add more complexity to a system than it is worth **SIMPLE**
32. the aim of project managers should be to strive for system **simplicity CORRECT SYSTEMS / SIMPLE**
33. many organisations implementing a quality system overlook non-technical considerations with too much emphasis placed on technical issues **HOLISTIC**
34. a **holistic** understanding of a system is a precondition to understanding any part of that system and a proper understanding is the only way to deliver a KISS based system **HOLISTIC / SIMPLE**
35. 5-S is an Asian quality system approach based upon the fundamentals of **simplicity SIMPLE**
36. average company requires up to ten years to set up a complete quality system **HARDWORK**
37. benchmarking only works if consistent methods of measuring process performance can be developed and introduced **CORRECT SYSTEMS**
38. construction project benchmarking needs to address the uniqueness of the construction working environment **UNIQUE / AWARENESS**
39. ISO standards are about how you do things, not what you do **AWARENESS**
40. ISO 9000 on the company notepaper does not make their product the best available, it just means their systems are good **AWARENESS**

41. to effectively maintain a QM system in the construction industry, a balance of the technical requirements and theoretical approach is necessary **HOLISTIC**
42. the construction industry has been driven to adopt QM systems and procedures in the main by major project owners **CORRECT SYSTEMS**
43. QM systems must be allowed to evolve to accept changes to the internal and external environments through communication, building coalitions, working **teams**, persistence and perseverance **CORRECT SYSTEMS**
44. the more complex the organisational structure, the more effective its QM system is likely to be **COMPLEX**
45. QM involves close, **trusting** and non-confrontational relationships with customers, suppliers and subcontractors **COLLECTIVE / ONE-TEAMING**
46. quality is the responsibility of everyone in a project **team COLLECTIVE / ONE-TEAMING**
47. without quality managers initiatives to bring about organisational change using QM is extremely unlikely to succeed **CORRECT SYSTEMS**
48. EFQM Business Excellence Model is **simple**, **holistic**, **dynamic**, **flexible** and innovative **SIMPLE / HOLISTIC / DYNAMIC / FLEXIBLE**
49. a TQM approach is the big picture **HOLISTIC**
50. management leadership can be considered as the most influential element of QM systems **CORRECT SYSTEMS**
51. TQM is about the quality of management and to a much lesser extent the management of quality **CORRECT TRAINING / CORRECT RECRUITING**
52. the participation of all the employees is essential for the **success** of TQM and they should share the same objectives **COLLECTIVE / ONE-TEAMING / CLARITY**
53. TQM at the construction site is not only possible but has proven to be a **success** with improved co-operation where a positive **team** attitude has been developed **COLLECTIVE / ONE-TEAMING**
54. the biggest obstacle to the adoption of TQM is the basic forms of construction contracts **COLLABORATIVE**
55. elements of TQM in the construction process: management commitment and leadership, **training**, **team**work, supplier involvement and customer service **COLLECTIVE / ONE-TEAMING / CORRECT TRAINING / COLLABORATIVE**
56. cost and profitability are the forces driving the policies **AWARENESS / REALISTIC**
57. project culture, far from being devoted to quality improvement, is dominated by short-term financial considerations, reflected in uncooperative and suspicious relationships **COLLABORATION / AWARENESS**
58. project relationships are frequently antagonistic with accusations, recriminations and blame common **COLLECTIVE / ONE-TEAMING**
59. Japanese construction companies embraced the TQM approach in the 70s **AWARENESS**
60. project managers required more than just traditional QA and QC to deliver a quality project **AWARENESS / HOLISTIC**
61. project management principles are recommended as an optimum tool for implementing TQM and managing **people** with cross-functional and multi-disciplined backgrounds from various organisations **CORRECT SYSTEMS**
62. TQM can provide the vision and goal of benchmarked best practice **AWARENESS**
63. project management can focus on management methods, such as planning, monitoring and controlling **CORRECT SYSTEMS**
64. everyone in the project **team** has a responsibility to satisfy the customer's wishes **COLLECTIVE / ONE-TEAMING**
65. a relationship needs to be formed with the client to understand their requirements and expectations where openness is an essential ingredient to build **trust AWARENESS / COLLABORATION**
66. natural desire to establish superiority over a project owner or a JV partner should not interfere with overall project **success COLLABORATION**
67. have measures in place to assess the status of customer satisfaction from the viewpoint of the customer **AWARENESS / OPENNESS**
68. processes need continual adjustment to meet continual changes in the environment **FLEXIBLE**
69. setting **simple** goals is important to develop a culture of continuous improvement **SIMPLE**
70. **people** need to be educated and trained to understand a TQM approach to work effectively and efficiently **CORRECT TRAINING**
71. work can be the greatest teacher **HARD WORK**
72. quality begins and ends with **training CORRECT TRAINING**
73. TQM **training** plans must be targeted at every level of an organisation **CORRECT TRAINING**
74. **training** as part of a project **team** and not as individuals within a **team** is also important **COLLECTIVE / ONE-TEAMING**
75. the Asian way for **team**work is based on consensus, however, effective **team**work will be achieved only if **team** members are bound together by mutually established internal goals rather than just by contractual arrangements **CORRECT INITIAL SET-UP**
76. **team**work is the best way to achieve project **success COLLECTIVE**
77. being part of a **team** is not a natural human function **COLLECTIVE / ONE-TEAMING**
78. a project **team** with a TQM approach requires mutually exclusive individual qualities so that the **team** members possess opposing qualities with a full range of personal and technical characteristics **CORRECT RECRUITING**
79. many organisations in the construction industry treat subcontractors and suppliers with indifference & hostility **COLLABORATION**
80. focus on the quality of relationships between every stakeholder who contributes to project **success COLLECTIVE**

81. involvement of contractors with their specialist subcontractors and suppliers at the design stage of a project is of benefit to the project **team CORRECT INITIAL SET-UP**
82. the construction industry traditionally has a poor reputation for customer service **AWARENESS**
83. the key resource in any company is the **people** within it **CORRECT RECRUITING**
84. procedures used in small family type organisation s are not suitable once the organisation becomes large **DYNAMIC**
85. it is substantially harder for the larger organisations to achieve TQM **AWARENESS**
86. TQM approach requires the setting up of management systems for all the processes and continuously improving management systems **CORRECT SYSTEMS**
87. **success**ful implementation of TQM requires *soft* outcomes of TQM, but the *soft* must be complemented by some *hard* management necessities such as systems, **teams** and tools **HOLISTIC**
88. the only way forward for TQM is to maintain the KISS principle and maintain TQM approach **simplicity SIMPLE**
89. whilst leadership must come from the top real change will be generated by those at the bottom **COLLECTIVE / ONE-TEAMING**
90. a **success**ful TQM programme should have committed leadership, **training**, **team**work, supplier involvement, improved communication, clearly identified vision, mission and goals and focus on employees **CORRECT TRAINING / COLLECTIVE / ONE-TEAMING / CLARITY**
91. the toughest obstacle faced by organisations on the road to TQM are not technical issues, but the cultural ones **AWARENESS**
92. TQM implementation requires a complete turnaround in corporate culture and management approach **FLEXIBLE**
93. issues related with organisational culture are further compounded by different country cultures as different countries with different cultures apply TQM in different ways **FLEXIBLE / AWARENESS**
94. **problem** areas in TQM implementation: insufficient commitment by senior management, incorrect corporate culture, no formal implementation strategy, narrowly based **training**, lack of effective communication; and not concentrating on organisational strengths **HOLISTIC**
95. reduce complexity **SIMPLE**
96. **team** structures should be integrated with flat hierarchy with **team** emphasis **COLLECTIVE / ONE-TEAMING / SIMPLE**

APPENDIX A.21

Key dimensions of IJVs and consortia

JVs have the following characteristics and are part of the backdrop of what needs to be managed:

1. JVs have become a popular method of entry into foreign markets **AWARENESS**
2. the easiest way for foreign contractors to operate in domestic markets with local construction companies **AWARENESS**
3. companies in Asia actively seek JV partners that can bring financing, technical, marketing and management skills **AWARENESS**
4. construction needs a holistic approach based on **teamwork**, of which the best method is partnering **HOLISTIC / COLLECTIVE / COLLABORATION**
5. the construction industry has taken longer than other industries for partnering to become an acceptable method of procurement **AWARENESS**
6. typical partner selection criteria includes ability to work co-operatively, integrate with others, communicate, understand concept of partnering and **shared benefits COLLECTIVE / ONE-TEAMING / COLLABORATION / REALISTIC**
7. if partnering is dealt with as just a legal arrangement or a philanthropic relationship, it will fail **COLLABORATION**
8. a partnering arrangement is in itself no substitute for a binding contract **AWARENESS**
9. seven pillars of partnering – strategy; membership; equity; integration; benchmarks; project processes; and feedback **HOLISTIC / CORRECT SYSTEMS**
10. make the best use of resources in each company to the mutual benefit of both companies **COLLABORATION**
11. partnering arrangements offer less adversarial relationships, increased openness and **trust** and improved quality and profitability **AWARENESS**
12. temporary arrangements for the purpose of usually carrying out a major project **AWARENESS**
13. JV organisation structures are not the easiest forms of organisation to manage and operate **AWARENESS**
14. JVs formed because projects are becoming more **complex** wide-ranging need for technical knowledge, strength in numbers, spread risk, acquire local knowledge and reduce competition **AWARENESS**
15. JVs tend to work only as long as partners believe there are **mutual benefits REALISTIC**
16. JVs do not have to establish a separate legally incorporated company **AWARENESS understanding**
17. an integrated JV is the most acceptable approach for civil engineering works **AWARENESS**
18. non-integrated JVs are employed frequently within construction **AWARENESS**
19. IJV are formed to make use of existing geographical or regional base and to access greater manpower from local partner **AWARENESS**
20. failure rate of IJVs is high **AWARENESS**
21. foreign exchange and IJV partner objections being the major problems encountered by IJVs **AWARENESS**
22. construction is a typical user of PBJVs - predetermined, limited life span, well-defined objectives, rapid decision-making, less time to understand the local environment and culture-related conflicts **AWARENESS**
23. differences in management style between JV partners can be a key issue in failure in PBJVs **FLEXIBLE**
24. fundamentals of the IJV arrangement should be clearly presented, understood and signed-off **CLARITY / CORRECT INITIAL SET-UP**
25. define your objectives and the project relationships **CLARITY / CORRECT INITIAL SET-UP**
26. decide and understand the implications of IJV ownership split **CORRECT INITIAL SET-UP**
27. agree the IJV work share **CORRECT INITIAL SET-UP**
28. give IJV project staff clear leadership and guidance from the very start **CORRECT INITIAL SET-UP**
29. IJV deadlock resolution structure in place **CORRECT INITIAL SET-UP**
30. select the right **people CORRECT RECRUITING**
31. know what you are signing up to **CLARITY / AWARENESS**
32. guidelines for choosing the right partners: compatibility, competencies and commitment **CORRECT INITIAL SET-UP**
33. important for selecting a JV partner: ability, experience and skills; financial suitability; similar business philosophy and concepts; strength of partner's willingness to form a JV; spoken language; and competiveness gained/resources/track record **CORRECT INITIAL SET-UP**
34. **trust** and mutual dependency important for JV partner selection **AWARENESS**
35. business partnerships are generally formed with a view to achieving future profitability **REALISATION**
36. core features of JV arrangements: joint and several liability and sharing of control over operations and ownership of capital **AWARENESS / REALISTIC**
37. ownership on IJVs is either symmetric or asymmetric **AWARENESS**
38. establishment of standard operational rules of thumb **CORRECT SYSTEMS**
39. standard informal rules regarding the percentage of equity, levels of JV management participation and decision-making control **CORRECT SET-UP SYSTEMS**
40. contract-based strategic alliance projects are favoured in dynamic and **complex** environments **CORRECT INITIAL SET-UP**

41. establishment of a hierarchical mechanism as the common frame of reference for promoting **communications** and adjustments **CORRECT INITIAL SET-UP**
42. personal relationships and maintaining mutual benefits far outweigh contractual compliance **COLLABORATION**
43. process of building a new organisational culture can lead to many conflicts and JV failure **AWARENESS / COLLABORATION**
44. 2 fundamental tiers of JV control: at shareholder level and at management level **AWARENESS**
45. management control between partners is by reference to percentage of equity ownership **AWARENESS**
46. the main mechanism of JV control is through majority ownership or voting control by virtue of majority equity share holdings **CORRECT INITIAL SET-UP**
47. ensure the local partners have a high enough level of ownership to generate an incentive for them to properly contribute **CORRECT INITIAL SET-UP**
48. mechanisms for controlling a JV: majority shareholding; right to appoint personnel to key positions; board meetings; limit issues requiring the unanimous agreement of the board members; capital budgeting and resource allocation and policies and procedures **AWARENESS / CORRECT INITIAL SET-UP / CORRECT SYSTEMS**
49. methods to achieve a certain amount of JV control: the right to veto the decisions of JV managers and representation in JV management bodies **AWARENESS / REALISTIC**
50. the more critical resources an IJV partner can position into an IJV, the more powerful they can become **AWARENESS / REALISTIC**
51. most important JV control mechanisms: right to appoint general manager **AWARENESS**
52. decision-making in IJVs is dominated by the chief representative of the majority equity owner **AWARENESS / REALISTIC**
53. greater equity control may be preferable if a foreign partner has little or no local experience **AWARENESS**
54. management control requires knowledge of events **COLLABORATION / CORRECT SYSTEMS**
55. right to appoint key positions will enable the JV partner to implement their chosen systems to manage and operate the JV **AWARENESS / REALISTIC**
56. many companies are not truly prepared to accept the *joint* aspect of JVs **AWARENESS / REALISTIC / COLLABORATION**
57. when challenged by internal agendas and priorities, managers seconded to JVs do not see the project as their prime responsibility **AWARENESS / REALISTIC / COLLABORATION**
58. projects allowed appropriate degree of autonomy so that the interests of the project are served **CORRECT INITIAL SET-UP**
59. main JV problem factors: lack of strong and effective leadership; the preliminary agreement; the partner selection; and lack of **trust** between partners **CORRECT RECRUITMENT / CORRECT INITIAL SET-UP / COLLABORATION**
60. above all other JV management problems is the issue of **communication** and feedback where language and culture can become insurmountable barriers to project success **COLLABORATION / CORRECT INITIAL SET-UP**
61. where different nationalities with differing mother-tongues are involved language problems can greatly effect both spoken and written situations **CORRECT INITIAL SET-UP**
62. the more partners involved in a JV the more likelihood there is for differing company politics to be at play **AWARENESS**
63. individuals from different countries and different cultures can work together **COLLABORATION**
64. many megaprojects have failed because foreigners approach situations based on the assumption that what worked at home will work anywhere **AWARENESS / FLEXIBLE**
65. many JV partners from the West perceive themselves to be superior to their Asian counterparts **AWARENESS**
66. culture plays a significant part in determining the shape of IJVs, the partners involved and, most importantly, their chances of success **AWARENESS**
67. address the large knowledge barriers at play regarding local culture and social norms **CORRECT TRAINING**
68. worldwide trends of JVs are increasing, but with very unsatisfactory results **AWARENESS**
69. the majority of problems encountered on IJVs with overseas contractors arose from cultural difficulties **CORRECT TRAINING**
70. cultural differences can over time increasingly create ambiguities and lead to mis**trust** in a partnership and result to ever increasing conflict **COLLABORATION / CORRECT TRAINING**
71. agree on the definition of short, medium and long-term with JV partners **CORRECT INITIAL SET-UP**
72. sufficient amount of time and attention should be paid to identify the cultural differences **COLLABORATION / CORRECT TRAINING**
73. impact of cultural distance upon IJV partner relationship needs to be addressed **COLLABORATION / CORRECT TRAINING**
74. foreigners in Asia often feel that they can never really be accepted as anything but an outsider **COLLABORATION**
75. Koreans expect more logic and fairness from a Western person than from a Korean **AWARENESS**
76. construction is about temporary organisations where culture also develops at a project level **AWARENESS**
77. **complex** projects with their varying JV partner cultures can result in a project culture which is totally unique with difficulties to manage **AWARENESS**
78. IJVS are notoriously difficult to manage **CORRECT RECRUITMENT**
79. national culture plays an important role in how project managers think and make decisions **AWARENESS**
80. look beyond stereotypical cultural views and discover the real beliefs of project **team** members **FLEXIBLE**

81. there can still be significant differences between company cultures within the same country **AWARENESS / CORRECT TRAINING**
82. project managers need to understand that when country and project cultures come into conflict, the first is likely to override values in the second **AWARENESS / CORRECT TRAINING**
83. it is a general rule of thumb in recent times for Western companies not to impose their ways of working on their international partners **AWARENESS / CORRECT TRAINING**

Multi-national teams have the following characteristics and are part of the backdrop of what needs to be managed:

1. to survive one has to adapt to the surroundings **FLEXIBLE**
2. the only real way to learn about another country with its differing language, customs, or laws is to reside there **AWARENESS / CORRECT TRAINING**
3. project managers do not have an induction period to learn about their new environment **CORRECT INITIAL SET-UP**
4. PBIJVs need to know the knowledge inventory available in the JV **COLLABORATION**
5. knowledge worker expats need to be mobile and know more about their job than their project manager boss does **AWARENESS / CORRECT RECRUITMENT**
6. expat personality characteristics generally need to include: broad- or open-mindedness and cultural empathy; creativity and a sense of humour; integrity and sincerity; and stress tolerance **AWARENESS / CORRECT RECRUITMENT**
7. self-efficacy and self-monitoring are key expat attributes to assist with cross-cultural adjustment **AWARENESS / CORRECT RECRUITMENT**
8. megaprojects and their organisations require exceptionally efficient knowledge management **CORRECT SYSTEMS**
9. the collaborative nature of such multidisciplinary project **teams** is essential **COLLABORATION**
10. processes for knowledge creation in multidisciplinary project **teams**: boundary crossing; knowledge sharing; knowledge generation; knowledge integration and collective project learning **COLLABORATION / CORRECT SYSTEMS**
11. knowledge management in a project also consists of knowledge creation, administration and dissemination **COLLABORATION / CORRECT SYSTEMS**
12. build a database/system for sharing knowledge between JV partners **COLLABORATION / CORRECT SYSTEMS**
13. management style and knowledge processes are inclined to follow the host-country partner's existing practices **AWARENESS / FLEXIBLE**
14. **people** do not think alike **AWARENESS / FLEXIBLE**
15. there will be differences of opinion between **people AWARENESS / FLEXIBLE**
16. common on megaprojects to have major disputes which arise based simply on personal preferences of two opposing individuals **AWARENESS / COLLABORATION**
17. not only do different **people** have to managed differently but different groups of **people** in the project **team** have to be managed differently, and that same group of **people** even have to be managed differently at different times **AWARENESS / FLEXIBLE**
18. **people** at all levels of a project need to feel valued **COLLECTIVE / ONE-TEAMING**
19. **team** members must interact; work toward common, specified goals that they value; and they must adapt to circumstances in order to reach these goals **CLARITY / COLLECTIVE / ONE-TEAMING / FLEXIBLE**
20. dispersed project **teams** tend to work best where **team** knew each other previously or have the time to get to know each other; shared background of knowledge; common task focus and clear project identify; robust procedures for planning, executing, monitoring and improving; and technologies are used to support work **CORRECT RECRUITMENT / CORRECT TRAINING / CORRECT INITIAL SET-UP / CORRECT SYSTEMS**
21. **people** in megaprojects are not only organisationally but also geographically dispersed and with their diverse backgrounds may speak several languages **AWARENESS / CORRECT SYSTEMS**
22. project **team** composition is *not* static and project managers need to actively manage variations in project **team** compositions **AWARENESS / CORRECT RECRUITMENT**
23. **one-teaming** is required to achieve an integrated project **team** and requires **team** leadership; **team** composition; extensive practice as a coherent **team** and clear **team** norms around **communication** and process **ONE-TEAMING**
24. **team** building will positively promote the development of the project **team**, which can be assisted at the outset through training courses to prepare **people** for working on JVs **CORRECT INITIAL SET-UP / CORRECT TRAINING**
25. the most important factor in the JV is to capture **trust COLLABORATION**
26. trying to maintain open dialogue with partners maintaining confidentiality is a challenge **REALISTIC / COLLABORATION**
27. get to know the partner before entering into the agreement to develop **trust CORRECT INITIAL SET-UP**
28. a technically competent manager will find it easier to build a **trust**ing relationship with his or her counterparts on the JV **team CORRECT RECRUITMENT**
29. **trust** is a very important aspect of cross-cultural JVs **COLLABORATION**
30. companies use **complex** combinations of control and **trust** in a complementary way **AWARENESS / CORRECT INITIAL SET-UP**
31. formal procedures and criteria used in the decision-making process need to be transparent, adjustable and correctable; unbiased, representative and non-discriminatory to each party, and in accordance with contractual specifications **CORRECT SYSTEMS / FAIRNESS**
32. contracts provide an *ex ante* framework, which can guide cooperation between partners **AWARENESS / FLEXIBLE**

33. DJ provides an *ex post* way for overcoming ambiguities and limitations of contracts **FAIRNESS / UNDERSTANDING**
34. companies and **people** are rarely not opportunistic when participating in IJVs, but opportunism can be controlled if DJ is in place **FAIRNESS / UNDERSTANDING**
35. **communication**, competence, credibility, consistency, support, respect and honesty are key parts of the **trust equation COLLABORATION / CORRECT RECRUITMENT**
36. boundary spanners need to bridge the cultural divide **COLLABORATION / CORRECT RECRUITMENT**
37. boundary spanners protect the integrity and well-being of the project, their company and the IJV **COLLABORATION / CORRECT RECRUITMENT**

Information, communication and coordination have the following characteristics and are part of the backdrop of what needs to be managed:

1. good information through clear **communication** and coordination on projects is essential **CORRECT SYSTEMS / COLLABORATION**
2. contract documents often have missing, conflicting and erroneous information resulting in major rework and customer dissatisfaction **CORRECT INITIAL SET-UP**
3. construction industry suffers greatly to maintain contemporaneous project records **CORRECT SYSTEMS / CORRECT RECRUITMENT**
4. information is a vital resource in order to carry out operational tasks in an effective and efficient manner **CORRECT INITIAL SET-UP / CORRECT SYSTEMS**
5. effective **communications** are required up, down and across the organisation in a matrix configuration and are critical when dealing with project **teams COLLABORATION / CORRECT INITIAL SET-UP / CORRECT SYSTEMS**
6. constant **communication** is vital **COLLABORATION**
7. establishment of effective **communication** within **teams** is essential in managing and motivating dispersed **teams** on global projects **COLLABORATION / CORRECT INITIAL SET-UP / CORRECT SYSTEMS**
8. possible misunderstandings can simply arise from language differences **AWARENESS / COLLABORATION**
9. common project language should be established **CORRECT INITIAL SET-UP**
10. **communication** is not just about the constant flow of good information but about the quality and pattern of information flow **CORRECT SYSTEMS**
11. effective project managers must place the issue of **communication** at the top of their list of concerns **CORRECT SYSTEMS**
12. partners to be on same page: integrated information **communication**; controlled flow of information; and optimisation of information flow **COLLABORATION / CORRECT SYSTEMS**
13. the greater the cultural gap between the potential PBIJV partners, the more difficult it will be to achieve project success **AWARENESS / COLLABORATION**
14. IT provides a sound platform for great benefits in both improved productivity and improved **communications CORRECT SYSTEMS**
15. essential that computer system compatibility is achieved within the PBIJV for effective project coordination **CORRECT SYSTEMS**
16. individuals centrally positioned in a network show more coordination **AWARENESS**
17. IT so far has been a producer of data rather than a producer of information **AWARENESS / CORRECT SYSTEMS**
18. too much information can destroy **communication AWARENESS / CORRECT SYSTEMS**
19. the age of e-projects in the e-world on megaprojects is becoming more commonplace **AWARENESS**
20. IT is simply a tool of management and should be seen and used as such **AWARENESS / CORRECT SYSTEMS**
21. the management of computer files is as unsystematic as document management **AWARENESS / CORRECT SYSTEMS**
22. systems be they paper or paperless are still managed by **people AWARENESS / CORRECT SYSTEMS**
23. construction has a lack of standardisation which at times leads to poor **communication** and integration **AWARENESS / CORRECT SYSTEMS**
24. electronic **communication** is the means of establishing better project integration **AWARENESS**
25. to send e-mails on megaprojects can facilitate quick **communications** with multiple **team** members **AWARENESS / CORRECT SYSTEMS**
26. e-mail **communication** has become an essential part of day-to-day project operations and is an important vehicle for both organisational and interpersonal **communication AWARENESS**
27. PMIS offers consistency of reporting and information to all project **team** members based on project access rights **AWARENESS**
28. companies are increasingly relying on CM **communication** for **collaboration** among employees **AWARENESS / CORRECT SYSTEMS**
29. Web 2.0 collaborative systems are dynamic and can be continually modified **AWARENESS**
30. project intranets, dashboards and e-mails are clear favourites forms of CM **communication AWARENESS**
31. a leader must constantly communicate with **team COLLECTIVE / ONE-TEAMING**
32. e-leadership is for leaders who have to carry out leadership through electronic channels and virtual **communication AWARENESS**
33. facilitating an effective exchange of information on an e-project can reduce any feelings of isolation there may be within certain quarters of the e-**team AWARENESS / ONE-TEAMING**

34. commonplace on PBIJVs to have a hybrid of remote and non-remote **team** members **AWARENESS / CORRECT INITIAL SET-UP**
35. important that e-leaders provide the same level of **communication** and access to both groups of the **team** to maintain one-**teaming** principles **COLLABORATION**
36. allocate office space for visiting e-**team** members **ONE-TEAMING**
37. uncertainty and misunderstandings can occur over a short time period in virtual environments due to the absence of FTF **communication CLARITY / CORRECT INITIAL SET-UP / COLLABORATION**
38. development of **trust** takes time and for e-**teams** in different geographic locations it will take longer than if in the same geographic location **AWARENESS / CORRECT TRAINING / ONE-TEAMING**
39. **trust** and collaborative behaviours are the two enabling conditions for success in CM groups **AWARENESS / ONE-TEAMING**
40. e-leader has to build sufficient **trust** in the e-**team** so that a proper exchange of information can take place **AWARENESS / ONE-TEAMING**
41. the ease with which e-**team** members can dispatch **communications**, at times needs restraint and reflection **AWARENESS / CORRECT SYSTEMS**
42. ensure there is no unethical use of project data by e-**team** members who have access to sensitive and confidential materials **CORRECT SYSTEMS**
43. a formal code of computer ethics can have an impact on ethical decision-making **CORRECT SYSTEMS**
44. ultimate ethical behaviour should be the responsibility of all e-**team** members **ONE-TEAMING**
45. ethical decisions related to computer use were in the first instance influenced by an individual's own personal code **CORRECT RECRUITMENT**

Dimensions of construction project success for IJVs and consortia

JVs have the following characteristics associated with project success:

1. selection of the most appropriate partner for any given situation **CORRECT INITIAL SET-UP**
2. initial cooperation between the partners requires clarity amongst the **team** of the partnering goals **CLARITY / CORRECT INITIAL SET-UP**
3. realistic set of goals in a partnering charter **REALISTIC / CORRECT INITIAL SET-UP**
4. selection of an appropriate partner is of paramount importance **CORRECT INITIAL SET-UP**
5. relying upon a cooperative relationship which has been fostered between the partners rather than reliance on legal obligations **COLLABORATION**
6. essential to properly support initial organisational stage **CORRECT INITIAL SET-UP**
7. critical that **teamwork** between JV partners is sponsored by senior management **COLLABORATION / ONE-TEAMING**
8. **teamwork** requires project goals to be consistent between JV personnel without interference from the home office **COLLABORATION / ONE-TEAMING**
9. attitude of JV personnel needs to be positive and consist of a mindset that home office influences should not override ultimate project success for the JV **COLLABORATION / ONE-TEAMING**
10. JV manager needs good political skills, particularly related to influence tactics **CORRECT RECRUITMENT**
11. important is to ensure that an organisation's culture matches the environment in which it operates **AWARENESS / FLEXIBLE**
12. cross-cultural management skills and the ability to adapt to the challenges of working in a multi-cultural project environment **CORRECT RECRUITMENT / AWARENESS / FLEXIBLE**
13. project managers to have an unbiased understanding of their own national culture and knowledge of the local country culture and business systems of JV partners **CORRECT RECRUITMENT / AWARENESS / FLEXIBLE**

Information, communication and coordination have the following characteristics associated with project success:

1. project managers with past experiences on IJVs and in particular with regard to contextual ambiguity **CORRECT RECRUITMENT / AWARENESS / FLEXIBLE**
2. JV management must keep control of a JV at all times **CORRECT SYSTEMS**
3. management must not allow an 'us and them' attitude to develop within a JV **COLLABORATION**
4. good **communication** links must be maintained between partners **COLLABORATION**
5. early establishment of management hierarchy **CORRECT INITIAL SET-UP**
6. identification of limit of powers of personnel **CLARITY / CORRECT INITIAL SET-UP**
7. correct structuring of the management **team CORRECT INITIAL SET-UP**
8. **team** formed on project specific basis working in the same office **CORRECT INITIAL SET-UP**
9. effective leader in whom the parties have the utmost confidence **CORRECT RECRUITMENT**
10. outstanding level of **communication COLLABORATION**
11. continuous review of JV performance **CORRECT SYSTEMS**
12. key **people** must have integrity, enthusiasm and humour **CORRECT RECRUITMENT**
13. **people** principles for success: define your goal; create a flexible strategy; have confidence; overcome fear of failure; motivation; the need to be appreciated; and celebrate success **CORRECT INITIAL SET-UP / FLEXIBLE**
14. the management of HR and facilitating **team**-building exercises **CORRECT RECRUITMENT / COLLABORATION**
15. project **teams** are given full responsibility and **trust**, and empowered to define their own objectives and limitations **CORRECT INITIAL SET-UP**

16. project manager establishes the initial core project **team CORRECT INITIAL SET-UP**
17. integration of the project activities of **people** in a dispersed project **team HOLISTIC / CORRECT SYSTEMS**
18. hire or promote **people** who have proven track records **CORRECT RECRUITMENT**
19. **communication** is always the key factor leading to the success or failure of a construction project **COLLABORATION**

APPENDIX A.22

SCREENING PROCESS OPERATIONAL CRITERIA CHECKLIST

The selected project managers and their respective projects for the case study stage of the research process need to meet a number of operational criteria, which should be:

A. Project Manager must

1. accept to participate in screening process
2. be of Western origin
3. have years of project manager experience on construction projects
4. have international experience on projects in Asia
5. accept future participation in research and access to project data.

B. Project Manager must have worked on a construction project

1. run by a PBIJV
2. located in Korea or Thailand
3. of sufficient size to be classified as a megaproject
4. comprising of multi-cultural dispersed teams
5. acting as PBIJV lead.

APPENDIX A.23

RESEARCH

HOW WESTERN PROJECT MANAGERS MANAGE
EAST-WEST MULTI-CULTURAL TEAMS
ON PBIJV CONSTRUCTION MEGAPROJECTS IN ASIA

SCREENING FOR CASE STUDIES

STAGE ONE – EXPLORATORY INTERVIEWS

Interviewee: _____

Project name: _____

Interview date: _____

Interview duration: _____

EXPLORATORY INTERVIEWS FOR CASE STUDY SCREENING

The interviewer, Eric Webb, is pursuing a PhD at Loughborough University in the United Kingdom. The research explores how Western project managers can manage East-West multi-cultural teams on construction megaprojects procured by project-based international joint ventures in Asia.

So far, an extensive review and analysis of published and unpublished literature related to the construction industry, joint ventures, international joint ventures, project-based international joint ventures, management and project management styles, total quality management and Asian culture has been completed by the interviewer.

As part of the research process, initial exploratory interviews have been adopted as part of the multiple-case study research method for case study screening purposes. Initial exploratory interview questions have been developed based upon the extensive literature review and are part of the research process to establish case studies with the assistance of interviewees. The attached list of questions comprises of the following sections:

- section one – personal details;
- section two – project details; and
- section three – interview guide categories and groups.

Sections one and two are in the form of questionnaires and can be completed by the interviewee in advance of the interview. Section three is a guide for the interviewer to ensure the fundamental research issues are addressed during the course of the exploratory interview. It is not intended for the interview to take more than about one hour.

All of the data provided by the interviewee shall remain confidential.

SECTION 1 – PERSONAL DETAILS

Item	Questions	Interviewee responses	Clarifications
1.1	Nationality		
1.2	Sex		
1.3	Age		
1.4	Employer type		
1.5	Project job title		
1.6	Professional qualifications		
1.7	Location during project		
1.8	Number of years as an expatriate		
1.9	Number of years as an expatriate in-country		
1.10	Language ability		
1.11	In-country status (with or without family)		
1.12	Nationality of wife/partner		
1.13	Number of in-country dependents		
1.14	Three words to describe your personality	a)	
		b)	
		c)	
1.15	Three most important personal attributes to manage successfully in Asia	a)	
		b)	
		c)	

Item	Questions	Interviewee responses	Clarifications
2.1	Brief project description		
2.2	Project location		
2.3	Year of JV/consortium inception		
2.4	Number of JV/consortium partners		
2.5	JV/consortium nationalities		
2.6	Direct government involvement in project		
2.7	Lead JV/consortium partner at inception		
2.8	JV/consortium partner shareholding ratio at inception		
2.9	Basic organisation composition of project team		
2.10	Approximate project cost		
2.11	Project master plan approval date (if applicable)		
2.12	Scheduled project duration		
2.13	Number of project phases		
2.14	Contract language		
2.15	Project funding fundamentals		

SECTION THREE – INTERVIEW GUIDE

PART ONE **:** **CONSTRUCTION INDUSTRY, ORGANISATIONS AND MANAGEMENT**

1.1 The Construction and Property Industry

1.1.1 The Client
1.1.2 Professional Consultants and Services
1.1.3 Construction Companies
1.1.4 Characteristics of the Construction Industry

1.2 Organisations, Management and Leadership

1.2.1 Organisations
1.2.2 Management
1.2.3 Projects
1.2.4 Project Management
1.2.5 Project Managers
1.2.6 Leadership

1.3 Environment

1.3.1 Internal Environment
1.3.2 External Environment
1.3.3 Globalisation

PART TWO **:** **THE ASIAN WAY**

2.1 The Asian Way

2.1.1 Asia
2.1.2 Republic of Korea or Thailand

2.2 Asian Culture

2.2.1 Asia
2.2.2 Republic of Korea or Thailand
2.2.3 Construction Industry
2.2.4 Project Contracts
2.2.5 Ethics Management and Corruption

2.3 Overseas Chinese Influences in Asia

3.4.1 Overseas Chinese
3.4.2 Business Culture
3.4.3 Confucianism

APPENDIX A.24

STAGE TWO INTERVIEWS – CASE STUDY QUESTIONNAIRE

RESEARCH

MANAGEMENT OF MULTI-CULTURAL TEAMS
ON INTERNATIONAL JOINT VENTURE
MEGAPROJECTS IN ASIA

CASE STUDY

STAGE TWO – EXPLORATORY INTERVIEWS

STRICTLY CONFIDENTIAL

Interviewee: _____

Project name: _____

Interview date: _____

Interview duration: _____

STAGE TWO EXPLORATORY INTERVIEWS FOR CASE STUDY

The interviewer, Eric Webb, is pursuing a PhD at Loughborough University in the United Kingdom. The research is an investigation to answer the research question, namely, how can Western expatriate project managers best manage and lead the project management of a megaproject from inception to completion and enable the best chance for project success.

So far, an extensive review and analysis of published and unpublished literature related to the construction industry, joint ventures, international joint ventures, project-based international joint ventures, management and project management styles, total quality management and Asian culture has been completed by the interviewer.

Thereafter, the research design requires a two-stage exploratory interview process. The first stage was a screening process to find case studies that were fully compliant with defined operational criteria. This stage is complete.

The second stage is a case study of the selected case studies to gain real insight into the research topic and investigate attitudes and behaviours of experienced professional expatriate Western managers actively involved on construction megaprojects in Asia. Exploratory interview questions have been developed based upon an analysis of the literature review and responses provided during the stage one screening process, in the form of a questionnaire and can be completed by the interviewee in advance of the interview process.

All of the data provided by the interviewee shall remain confidential.

QUESTIONNAIRE

Please mark the answer that comes closest to the way you feel about the issue, leaving answers to non applicable questions blank. It is important to stress that for many of the questions herein there are not "right" or "wrong" answers, but your valued opinion based upon many years of professional experience at a senior management level in the construction sector. If you wish to make additional comments / clarifications about any of the questions, please use the space provided at the end of the questionnaire. The questionnaire is divided into the following sections:

SECTION ONE

A : Company, Joint Venture and Project Data

B : Local Construction Industry and Practices

C : Organizations, Management and Leadership

D : Environment

SECTION TWO

E : Asian Ways

F : TQM in Asia

G : Project-based International Joint Ventures

H : Multi-national Teams

SECTION THREE

I : Information, Communication and Coordination

J : Expatriate Life

K : New Ways of Working

L : Interviewee Additional Comments

Your opinions are extremely important to better understand project management issues on construction megaprojects in Asia. Your valued time is much appreciated and I assure you that the contents of your completed questionnaire will be treated in the strictest of confidence.

SECTION ONE

A.1   Company and JV Data

> Please respond to each of the following questions by ticking the cells,
> which best fits your Company

1. What type of Company do you work for?

    ☐ Sole proprietorship

    ☐ Partnership / Joint Venture (JV)

    ☐ Limited Company

2. What type of Limited Company do you work for?

    ☐ Not applicable

    ☐ Private Limited Company

    ☐ Public Limited Company

3. How long has your Company been operating in Korea?

    ☐ Less than 1 year

    ☐ 1-5 years

    ☐ 5-10 years

    ☐ 10-15 years

    ☐ Over 15 years

4. How many staff does your Company employ and have based in Korea?

    ☐ 1 to 250

    ☐ 250 to 500

    ☐ 500 to 1000

    ☐ 1000 to 3000

☐ More than 3000

5. Is your Company a subsidiary or affiliated company of a parent company that is registered outside of Korea?

Yes ☐   No ☐

6. How long has your parent company been in existence?

☐ Not applicable

☐ Less than 1 year

☐ 1-5 years

☐ 5-10 years

☐ 10-15 years

☐ Over 15 years

7. Does your Company have a partnering agreement and/or a contractor / consultant alliance strategy on the Project?

Yes ☐   No ☐

8. Which of the following partnering and/or alliance arrangements does your Company currently have in place on the Project?

Joint Venture / Consortia   ☐

Project partnering   ☐

Strategic partnering   ☐

Alliances   ☐

9. Does your Company have prior JV experience on a construction-related project in Korea?

Yes ☐   No ☐

10. Which of the following project services does your Company and affiliated companies have as an in-house capability?

Design   Yes ☐   No ☐

Quantity surveying	Yes ☐	No ☐
Project management	Yes ☐	No ☐
Construction management	Yes ☐	No ☐
Facilities management	Yes ☐	No ☐
Other, ……………………………………..	Yes ☐	No ☐

Please respond to each of the following questions by ticking the cells, which best fits the Project

---

11. What is the nationality of your JV partner companies on the Project?

Korean ☐

South-East Asian ☐

Far Eastern ☐

European ☐

American ☐

Australian ☐

Other, please specify………………………………………………….

12. Do you have standard reporting systems for the Project?

Yes ☐   No ☐

13. If yes, who provided the standard reporting systems for the Project?

Parent company ☐

JV partner ☐

Other, …………………………………………………….. ☐

14. If no, have the reporting systems on the Project been developed on a bespoke basis from within the JV?

Yes ☐   No ☐

15. If yes, which part of the JV was the driver to produce the reporting systems for the Project?

      Your Company   ☐

      One of the JV partners   ☐

      Joint effort by the JV as a whole   ☐

> Please respond to the following questions by ticking the cells, which best fits your opinion

16. Is it likely that your Company will proceed with another construction-related project in Korea?

                              Yes   ☐   No ☐

17. Are you aware of any other Western companies that have proceeded with repeat construction-related projects in Korea on a JV basis?

                              Yes   ☐   No ☐

18. Would you recommend other Western companies to enter into a JV-related construction project in Korea?

                              Yes   ☐   No ☐

A.2   Project Data

> Please respond to each of the following questions by ticking the cells, which best fits the Project

1. What was the official language agreed between the JV partners for project-related communications at the outset of the Project?

      Korean   ☐

      Korean with English translation   ☐

      English   ☐

      English with Korean translation   ☐

      Korean and English with translations   ☐

      Other, please specify……………………………………………..   ☐

2. What currently is the official language for both spoken and written project-related communications on the Project?

    Korean   ☐

    Korean with English translation   ☐

    English   ☐

    English with Korean translation   ☐

    Korean and English with translations   ☐

    Other, please specify…………………………………………..   ☐

3. Are all JV meetings to discuss about the Project minuted and officially distributed to the JV partners?

    Yes   ☐   No ☐

4. Was any JV work scope on the Project allocated by the JV partners to any of the Project's JV companies and/or affiliated companies in a pre-contract agreement between the JV partners?

    Yes   ☐   No ☐

5. Has any of the following work scope for the Project has been allocated to JV partners and/or affiliated companies?

Design	Yes ☐	No ☐
Design management	Yes ☐	No ☐
Cost management	Yes ☐	No ☐
Project management	Yes ☐	No ☐
Construction supervision	Yes ☐	No ☐
Construction management	Yes ☐	No ☐
Asset management	Yes ☐	No ☐
Other, ……………………………………	Yes ☐	No ☐

6. Does the senior management of the JV on the Project have a steering committee, which meets on a regular basis to discuss project issues?

    Yes ☐   No ☐

7. If yes, does the JV steering committee include the Project Manager and/or release minutes of meetings to the Project Manager?

    Yes ☐   No ☐

8. Which of the following key documents are applicable to the Project?

    JV partner pre-contract agreement   Yes ☐   No ☐

    Feasibility Study   Yes ☐   No ☐

    Business Plan   Yes ☐   No ☐

    JV partner responsibility matrix   Yes ☐   No ☐

    Implementation Plan   Yes ☐   No ☐

    Financial Close / Loan Agreements   Yes ☐   No ☐

    JV partner services agreements   Yes ☐   No ☐

    Other, please specify……………………………… Yes ☐   No ☐

9. What form of construction contract has been used on the Project?

    Standard international form of contract   ☐

    Local form of contract   ☐

    Parent company form of contract   ☐

    Other, please specify………………………………………………..   ☐

10. What is the location for the JV steering committee meetings to discuss matters related with the Project?

    Project host country   ☐

    Parent company country   ☐

    Combination of both host and parent company countries   ☐

    Other, please specify………………………………………………..   ☐

Please respond to the following questions by ticking the cells, which best fits your opinion

11. Which of the following best describes, on the whole, your feelings after many of the day to day JV team meetings on the Project have finished?

    Exasperated if anything was actually agreed in the meeting   ☐

    Happy after firmly structured meeting with an agenda   ☐

    Happy although fluid with separate meetings within meeting   ☐

    Happy the meeting is finished   ☐

    Un-happy with break-off meetings within meeting   ☐

    Un-happy with un-structured and dis-jointed meeting   ☐

    Other, please specify……………………………………………………

    ……………………………………………………………………………

12. Which of the following terms best describes your management style whilst conducting a JV team meeting on the Project?

    Authoritarian   ☐

    Facilitator   ☐

    Relaxed   ☐

    Structured   ☐

    Other, please specify……………………………………………..   ☐

SECTION B: LOCAL CONSTRUCTION INDUSTRY AND PRACTICES

B.1   Local Construction Industry

> Please indicate your reaction to each statement by ticking the appropriate cell,
> which is on a 1 to 5 scale (1 = strongly agree, 5 = strongly disagree)

1. Local demand in construction has been stable over the past five years.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

2. Innovation, research and development are more prevalent in construction than in most other industries.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

3. Over the past five years, construction has been less profitable than other industries.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

4. There is a serious excess capacity problem in our industry.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

5. Our industry is still in a period of early growth and infancy.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

6. Our industry could be characterised as a high-technology industry.

    1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

7. Give three suggestions where you think the local construction-related industry can be improved.

………………………………………………………………………………………........

………………………………………………………………………………………..…….

………………………………………………………………………………….……………

………………………………………………………………………………….……………..

………………………………………………………………………………………….......

....

Please respond to the following questions by ticking the cells, which best fits your opinion

8. When will the Korea Government implement more internationally recognised regulations or legislation related with construction industry practices in the private sector?

   No need because already international ☐

   In the short-term ☐

   In the medium-term ☐

   In the long-term ☐

   Never as not in the interests of the local private sector ☐

9. Do you consider that the local construction industry would benefit from the standardisation of reporting systems?

   Yes ☐   No ☐

10. How has the Project been impacted by the credit crunch that was prevalent worldwide since 2007?

    No impact ☐

    Minimal impact ☐

    Significant impact ☐

    Other, …………………………………………………………………. ☐

11. How did you motivate your team on the Project during such a difficult period?

    Appraised the team about impacts on a need to know basis ☐

    Fully explained the steps being taken by the JV ☐

    Fully transparent and explained need for possible re-tenching ☐

    No need to motivate as such events are part of business ☐

    Told the team not to worry as their jobs were safe ☐

B.2   Local Construction Industry Practices

Please respond to the following questions by ticking the cells, which best fits your opinion

1. Which of the following best describe the nature of the local construction industry?

     Adversarial ☐

     Conglomerate-based ☐

     Fragmented ☐

     Harmonious ☐

     Opportunistic ☐

     Structured ☐

2. Which of the following are the main differences between the local construction industry work practices and those from your home country on megaprojects?

Answer the question by giving, 1 for the least important and 4 for most important difference

     Competition between JV partners ☐

     Cartel-based appointments by JV partners ☐

     Lack of transparency to JV partners ☐

     Personal work-related networking beyond project boundaries ☐

     No major differences ☐

Please respond to the following questions by ticking the cells, which best fits your opinion

3. For which of the following project-related services did your Company independantly engage the services of a professional consultancy on the Project?

     Concept design   Yes ☐   No ☐

     Post-concept design   Yes ☐   No ☐

Project management   Yes ☐   No ☐

Quantity surveying   Yes ☐   No ☐

Construction supervision   Yes ☐   No ☐

Construction management   Yes ☐   No ☐

Other, ………………………………………….. Yes ☐   No ☐

Other, ………………………………………….. Yes ☐   No ☐

4. For which of the following project-related services did the JV partners collectively engage the services of a professional consultancy on the Project?

Concept design   Yes ☐   No ☐

Post-concept design   Yes ☐   No ☐

Project management   Yes ☐   No ☐

Quantity surveying   Yes ☐   No ☐

Construction supervision   Yes ☐   No ☐

Construction management   Yes ☐   No ☐

Other, ………………………………………….. Yes ☐   No ☐

Other, ………………………………………….. Yes ☐   No ☐

SECTION C: ORGANIZATIONS, MANAGEMENT & LEADERSHIP

C.1   Project Organization

> Please respond to each of the following questions by ticking the cells, which best fits the Project

1. Do you have people working on the Project who are or have been remotely-based outside of Korea?

    Yes ☐   No ☐

2. If yes, which of the following categories represent such project-related people?

    Specialist consultants ☐

    Company senior management ☐

    JV partner senior management ☐

    Company personnel ☐

    JV partner personnel ☐

    Other, …………………………………………………………….. ☐

    None of the above ☐

> Please respond to the following questions by ticking the cells, which best fits your opinion

3. Which one of the following terms best describes the organisational working relationship between the JV personnel working on the Project?

    Fragmented ☐

    Hierarchal ☐

    Matrix ☐

    Siloed ☐

    Other, …………………………………………………………………. ☐

4. Which one of the following terms best describes the organisational working relationship between all of the personnel working on the Project?

    Consensual ☐

    Competitive ☐

    Harmonious ☐

    Networked ☐

    Project-focused ☐

    Strained ☐

5. Which one of the following terms best describes the strategic approach taken by the JV for staffing on the Project?

    In-house ☐

    Lean ☐

    Out-sourced ☐

    Over staffed ☐

    Other, …………………………………………………………….. ☐

C.2   *Project Management*

1. What areas of management did/do you consider has caused the most problems on the Project?

> Please rank your response in numerical order from 1 to 6,
> 1 being the most likely area to incur the most problems
> and make your own comments in the space provided below if necessary

    Management of JV Board management issues ☐

    Management of JV partner project personnel ☐

    Management of remotely-based project personnel ☐

    Management of local Company personnel ☐

    Management of remotely-based project consultants ☐

    Management of local project consultants ☐

…………………………………………………………………………………………

…………………………………………………………………………………………

2. What success criteria do you look for in determining success on the Project?

> Answer the question by giving,
> 1 for the least important and 5 for most important criteria
> and make your own comments in the space provided below if necessary

Achieving a coherent working JV project team ☐

Acheiving a one-teaming philosophy within the JV project team ☐

Completing the project on time, within budget and to schedule ☐

Exceeding JV project objectives ☐

Meeting external client requirements ☐

…………………………………………………………………………………

…………………………………………………………………………………

> Answer questions **C.2.3** ~ **C.2.5** by using the following marking scheme:
> 1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

3. Do you think that people on construction projects should be organised as a fully integrated and cohesive team?

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

4. Project manager evaluation continues to be centred upon the three traditional project measures: budget; schedule; performance.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

5. Do you agree with the theory that the profitability and competitiveness of a company are, more than any other element, driven by the ability of the organisation's leadership to empower it's people to perform to their maximum potential.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

6. Construction industry companies often encounter and undertake a certain amount of risk whilst engaging in a project. Which of the risks listed below has concerned you the most on the Project?

> Please rank your responses in numerical order from 1 to 9,
> 1 being the risk that concerns you the most

Exchange rate volatility ☐

Interest rate fluctuations ☐

Political risk ☐

Risk of inflation ☐

Risk of technical failure to the process of construction ☐

Risk of delay in completion of the works ☐

Risk of the clients inability to pay ☐

Risk of the plain inexperience of a client who makes life difficult ☐

Risk of a reduced profit margin and ultimately the loss of profit ☐

7. Which of the following is most expected of the project manager by the individual members of the project team from your Company on the Project?

> Please rank your response in numerical order from 1 to 6,
> 1 being the most expected from the project manager
> and make your own comments in the space provided below if necessary

Being a good listener ☐   Being paternalistic ☐

Being trustworthy ☐   Praising when praise is due ☐

Showing that you believe in them ☐   Setting realistic goals ☐

…………………………………………………………………………………….

…………………………………………………………………………………….

Please respond to each of the following questions by ticking the cells, which best fits your opinion

8. Do you think that project team motivation is important for achieving project success?

Very important ☐   Important ☐

Not important ☐   Unsure ☐

9. What is the level of training of the local project personnel in the local construction industry?

None ☐

Poor ☐

Satisfactory ☐

Good ☐

Excellent ☐

10. What is the level of training of the local personnel on the Project by your JV partner(s)?

None ☐

Poor ☐

Satisfactory ☐

Good ☐

Excellent ☐

11. Continued professional development ("*CPD*") is required by professional bodies for learning new skills and keeping abreast of new practices. State whether you believe in the following statements:

Answer by using the following marking scheme:
1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

Employees cannot take time away for seminars and symposiums since:

too much competition exists in the industry

1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

profit margins will not allow it

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

CPD is viewed unimportant by the JV

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

project demands will not permit it

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

Cannot invest in training at the Project level because:

individual employment is short-term

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

people have no project loyalty

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

the environment is difficult

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

profit margins do not allow it

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

I encourage CPD and organise sufficient training

1　☐　　　2 ☐　　　3 ☐　　　4 ☐　　　5 ☐

12. Which of the following best describe the basic management philosophies of the local JV management staff on the Project?

Please respond to the following questions by ticking one cell in each row, which best fits your opinion

Aggressive	☐	Non-confrontational	☐	Both	☐
Ambiguous	☐	Non-ambiguous	☐	Both	☐
Complex	☐	Simple	☐	Both	☐
Consensual	☐	Authoritarian	☐	Both	☐

Hardworking	☐	Laid back	☐	Both	☐
Rigid	☐	Flexible	☐	Both	☐
Structured	☐	Un-structured	☐	Both	☐
Team player	☐	Individualistic	☐	Both	☐
Unethical	☐	Ethical	☐	Both	☐

13. Are any of the responses to the above question (**C.2.12**) dependant upon the given situational context at play at any given time on the Project?

Yes ☐ No ☐

If yes, please comment:

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

14. Have you ever been provided with any management training by your Company?

Yes ☐ No ☐

15. Do you consider it is important to have in-house management training provided by your Company?

Yes ☐ No ☐

C.3 Project Leadership

Please respond by ticking the cell, which best fits your opinion

1. Do you consider that a majority shareholder and/or group of majority shareholders on a JV will assume control of a project with their own company interests at the fore rather than that of the JV and the project?

Yes ☐ No ☐

SECTION D: ENVIRONMENT

1. Which of the following happened to the construction industry in Korea as a result of the economic situation in the region over the last five years?

Please tick the cells for each response you feel are relevant to the question or make your own comments in the space provided below

Decrease in the number of new projects that are available ☐

Increase in the number of contracts being re-negotiated ☐

Increase in contracts temporarily or permanently being stopped ☐

Project delays because the necessary funds are not available ☐

………………………………………………………………………………

………………………………………………………………………………

2. What type of basic management strategy do you consider was the most effective on the Project to take due account of the economic situation over the last five years?

Please respond by ticking the cell, which best fits your opinion

Combative ☐

Co-operative ☐

Holistic ☐

Innovative ☐

3. What did you consider to be the priority areas of management focus on the Project during the most recent period of economic uncertainty?

Please rank your response in numerical order from 1 to 7, 1 being the main priority

Downsizing ☐

Increase efficiency ☐

Improve product and service quality ☐

Improve JV partner terms ☐

Increase sales prices ☐

Reduce costs ☐

Slow down the construction activity ☐

4. Which of the following do you consider to be the most important to your Company on the Project?

Please rank your response in numerical order from 1 to 6, 1 being the most important

Achieving the initially budgeted profit margin for the project ☐

Agreeing a mutually acceptable JV Agreement with JV partners ☐

Ensuring a quality project product is provided ☐

Maintaining a good business relationship with JV partner(s) ☐

Maintaining the scheduled time for project completion ☐

Re-negotiating new terms and conditions with JV partner(s) ☐

5. Which of the following has appeared to be the most important to your Asian JV partner(s) on the Project?

Please rank your response in numerical order from 1 to 6, 1 being the most important

Achieving the initially budgeted profit margin for the project ☐

Agreeing a mutually acceptable JV Agreement with JV partners ☐

Ensuring a quality project product is provided ☐

Maintaining a good business relationship with JV partner(s) ☐

Maintaining the scheduled time for project completion ☐

Re-negotiating new terms and conditions with JV partner(s) ☐

6. Which of the following project manager possessions do you consider to be the most valuable for JV project success in Korea?

> Please rank your response in numerical order from 1 to 3,
> 1 being the most valuable

Excellent management skills ☐

Excellent business contacts ☐

Excellent political contacts ☐

> Answer the following questions by using the following marking scheme:
> 1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

Local Entry Barriers

7. The local construction industry is very difficult for new companies to enter successfully.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

8. In the local construction business existing companies have insurmountable advantages over new entrants.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

9. Large local companies have definite cost advantages in the construction industry.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

10. The local construction industry is dominated by a few large conglomerates.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

Rivalry

11. In the local construction industry, customers are loyal. They rarely switch to new firms or competitors.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

12. Competition in the local construction industry is mainly on price, not product or service differentiation.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

13. Compared to other local industries, rivalry in the construction industry is extremely intense.

    1 ☐　　　2 ☐　　3 ☐　　4 ☐　　5 ☐

14. Companies in the local construction industry advertise heavily compared to other industries.

    1 ☐　　　2 ☐　　3 ☐　　4 ☐　　5 ☐

15. Is it necessary for project managers to acquire a more holistic management style to adequately manage the external environment?

Please respond by ticking the cell, which best fits your opinion

Yes　　☐　　No ☐

SECTION TWO

> Please respond to the following question by ticking the cell,
> which best fits your opinion

E.1   Asian Ways

1. Do you consider the Western way is the only real way to properly manage JV construction megaprojects to achieve project success?

    Yes ☐   No ☐

2. Do you consider the Asian way is the only real way to properly manage JV construction megaprojects in Asia to achieve project success?

    Yes ☐   No ☐

3. Do you consider there is only one real way to properly manage JV construction megaprojects regardless of the geographical location in the World?

    Yes ☐   No ☐

4. Have you adpated your home country project management style to suit the demands of an Asian project location in order to achieve project success?

    Yes ☐   No ☐

5. If yes, please explain the fundamental differences between your way of managing in Asia and that expected of you by the locals:

    ……………………………………………………………………………………

    ……………………………………………………………………………………

    ……………………………………………………………………………………

    ……………………………………………………………………………………

    ……………………………………………………………………………………

    ……………………………………………………………………………………

    ……………………………………………………………………………………

6. Which of the following do you consider best reflects the most prominent features of Asian business culture:

Please rank your response in numerical order from 1 to 3, 1 being the most prominent

    Excellent management skills ☐

    Excellent business contacts ☐

    Excellent political contacts ☐

E.2   Korean Ways

1. What is the biggest cultural influence on local way of working on the Project?

Please rank your response in numerical order from 1 to 6, 1 being the most influential

    Company allegiance ☐

    Educational background ☐

    Ethics ☐

    Family ☐

    Politics ☐

    Religion ☐

2. Were you initially surprised by the local ways of working?

    Yes ☐   No ☐

3. If yes, what three local ways of working surprised you the most?

    ☐   ………………………………………………………………………….

    ☐   ………………………………………………………………………….

    ☐   ………………………………………………………………………….

4. Do you consider yourself accustomed to local ways of working?

    Yes ☐   No ☐

Answer the following questions by using the following marking scheme:
1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

5. The JV partners on the Project have faster decision-making processes than those used by your Company.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

6. The JV partners on the Project prefer not to refer to written project agreements.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

7. The systems used by the JV partners on the Project are too bureaucratic in nature.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

8. Local work practices provide a better chance for project success on the Project than the work practices used by your Company.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

9. You prefer local work practices to the work practices used by your Company.

   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

10. What are the three local ways of working that you most like?

   ☐   …………………………………………………………………………….

   ☐   …………………………………………………………………………….

   ☐   …………………………………………………………………………….

   ☐   None

E.3   Cultural influences

1. Were you given an induction course by your Company about Asian culture?

   Yes ☐   No ☐

2. Have you been given training about Asian culture by your Company during the course of the Project?

Yes ☐　　No ☐

3. Do you consider it is important to have in-house Company training about the culture of the country of the Project?

Yes ☐　　No ☐

4. Which of the following is most expected of the project manager by the individual local members of the project team on the Project?

> Please rank your response in numerical order from 1 to 6,
> 1 being the most expected from the project manager
> and make your own comments in the space provided below if necessary

Being a good listener ☐　　Being paternalistic ☐

Being trustworthy ☐　　Praising when praise is due ☐

Showing that you believe in them ☐　　Setting realistic goals ☐

………………………………………………………………………………….

………………………………………………………………………………….

5. Which of the following aspects of local culture do you consider have the most positive influence for project success on the Project?

> Please rank your response in numerical order from 1 to 7,
> 1 being the most positive influence for project success
> and make your own comments in the space provided below if necessary

Face ☐

Family ☐

Local Business relationships ☐

Non-confrontation ☐

Personal networks ☐

Politics ☐

Trust ☐

Other, ………………………………………………………….. ☐

…………………………………………………………………………………….

…………………………………………………………………………………….

Answer the following statement by using the following marking scheme:
1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

---

The following aspect of local culture is far removed from the related culture in the West:

Business ethics	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Collaborative	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Corruption	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Face	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Family	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Flexibility	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Lobbying	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Logic	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Loyalty	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Networking	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Non-confrontational	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Politics	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Respectful	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Speed-based decisions	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
The collective	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Trust-based	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Values	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

SECTION F: TQM IN ASIA

F.1   TQM generally

Please respond to the following questions by ticking the cells, which best fits your Company or JV as may be applicable

1. Does your Company apply TQM principles in it's daily operations?

    Yes ☐   No ☐

2. Does the JV apply TQM principles in it's daily operations on the Project?

    Yes ☐   No ☐

3. Collective attainment of the iron triangle of 'time, cost and quality' is the traditional criteria to measure project success in the West. Do you think that TQM plays an active role in each component part of the iron triangle?

    Yes ☐   No ☐

4. To what degree, if at all, do you consider TQM to effect the following deliverables on the Project:

Answer by using the following marking scheme: 1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

Quality   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Management   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Price   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Cost   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Competitiveness 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Effectiveness   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

5. Do any of your JV partners implement TQM principles?

    Yes ☐   No ☐

6. Do your Company employees conduct or attend training seminars concerning:

    ISO 9000 series   Yes ☐   No ☐

TQM	Yes	☐	No	☐
Re-engineering	Yes	☐	No	☐
Constructability	Yes	☐	No	☐
Partnering	Yes	☐	No	☐
Value engineering	Yes	☐	No	☐
Value management	Yes	☐	No	☐
Risk management	Yes	☐	No	☐

7. In your opinion, what are the benefits to the Project of practicing TQM to achieve project success?

    …………………………………………………………………………….

    …………………………………………………………………………….

    …………………………………………………………………………….

Please respond to the following questions by ticking a cell in each row, which best fit the Project

8. Do you have a project systems in place to monitor the performance on the Project related with the following deliverables?

Time	Yes	☐	No	☐
Cost	Yes	☐	No	☐
Quality	Yes	☐	No	☐

Please respond to the following questions by ticking the cell, which best fits your opinion

9. Have any of your local JV partners ever stated that your Company must have an ISO 9000 series Quality System in place in order to be considered as a partner in Korea?

    Yes ☐   No ☐

10. Are you aware if any of your foreign competitors in the local market have certified ISO 9000 systems in place?

Yes ☐   No ☐

11. Why do you think your JV partner chose to partner with your Company?

Excellent management skills ☐

Excellent business contacts ☐

Excellent political contacts ☐

12. What is your Company considering to do next to improve the chances of project success on the Project?

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

F.2   TQM-related factors in Asia

> Please indicate to what level your Company has implemented on the Project the TQM-related factors given below, on a 0 to 5 scale
> (5 = highly advanced in implementation; 1= have not begun implementation but intend to; 0 = do not intend to implement)

Closer to JV partners

1. Increasing the Company's direct personal contacts with JV partners.

0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

2. Actively seeking JV partner inputs to determine mutual benefits.

0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

3. Working more closely with JV partner project-based personnel.

0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

Benchmarking

4. An active competitive benchmarking programme.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

5. Researching best management practices of other companies in the region.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

6. Visiting other companies in the region to investigate best management practices.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

Training

7. Management training in cultural awareness.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

8. Employee training in one-teaming.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

Open organisation

9. A more open, trusting organisational culture.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

.
10. Less bureaucracy.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

11. Frequent use of cross-departmental teams.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

12. Use of empowered work teams.

    0 ☐   1 ☐   2 ☐   3 ☐   4 ☐   5 ☐

13. Which of the following do you consider as the most important to achieve project success on the Project?

Please rank your response in numerical order from 1 to 4, 1 being the most important

Excellent planning □

Good project systems □

Hard work □

People with correct qualities □

All of equal importance □

Please respond to the following question by ticking the cell, which best fits your opinion

14. Do you consider there is any fundamental difference between Western and Asian management styles?

Yes □   No □

15. If yes, how would you define the difference?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

F.3   Hard and soft project management skills

1. Which of the following *hard* project management issues would you generally focus on the most in the pursuit of project success?

Please rank your response in numerical order from 1 to 8, 1 being the item requiring the most focus

Cost reporting ☐

Detailed matrix of JV responsibilities ☐

Project and JV business plans ☐

Project and JV feasibilities and budgeting ☐

Project scheduling ☐

Project systems ☐

Signed Contract Agreements ☐

Training of technical topics to the local staff on the Project ☐

No ranking required, as all of the above are of equal importance ☐

2. Which of the following *soft* project management issues would you generally focus on the most in the pursuit of project success?

Please rank your response in numerical order from 1 to 7, 1 being the item requiring the most focus

Develop a trust-based environment within the JV project team ☐

Develop an integrated culturally aware JV project team ☐

Develop collaborative working between all JV personnel ☐

Ensure appropriate staffing allocation by JV from outset of project ☐

Ensure clarity of direction provided to all parts of the project JV ☐

Ensure remotely-based JV personnel are part of the project team ☐

Maintain a respectful interaction between JV partners   at all levels ☐

No ranking required, as all of the above are of equal importance ☐

> Please respond to the following questions by ticking the cells,
> which best fits your opinion

3. Should project managers focus on *hard* project management skills more than *soft* skills in the pursuit of project success?

    Yes ☐

    No ☐

    Of equal importance ☐

4. Can a project manager be taught *soft* management skills?

    Yes ☐   No ☐

SECTION G: MEGAPROJECTS AND PROJECT-BASED INTERNATIONAL JOINT VENTURES

G.1   Megaprojects

Please respond to the following question by ticking the cells, which best fits your opinion

1. Do you consider the Project to be a megaproject?

Yes ☐   No ☐

2. What project value do you consider defines a megaproject?

In excess of USD 100 million   ☐

In excess of USD 500 million   ☐

In excess of USD 1,000 million   ☐

Based on project management complexity not monetary value   ☐

Other, …………………………………………………………….. ☐

3. Which one of the following best describes a megaproject?

☐ Megaprojects are characterized by conflict and uncertainty and poor cooperation between partners.

☐ Megaprojects are motivated by vested interests which operate against the public interest.

☐ Megaprojects are too a complex and fail to meet costs estimations, time schedules and project outcomes.

☐ Megaprojects spread risk and obtain local knowledge and contacts.

☐ Other, …………………………………………………………………….

4. Do you consider that the culture of construction JVs is unique and the control of them is complex due to their very nature?

Yes ☐   No ☐

G.2   PBIJVs

1. What were the main objectives for your Company in having JV partners for the Project?

Please rank your response in numerical order from 1 to 4, 1 being the most important objective

Entry to local market ☐

Obtain local knowledge ☐

Spread risk ☐

Utilisation of local contacts ☐

Other, …………………………………………………………………… ☐

2. What has been the main risk for your Company in having JV partners on the Project?

Please rank your response in numerical order from 1 to 3, 1 being the biggest risk

No prior working relationship with JV partners ☐

JV partners have majority ownership of JV ☐

JV partners too powerful in local market ☐

Other, …………………………………………………………………… ☐

3. Which of the following typical risks were the most prevalent on the Project for your Company with the JV partners from another country?

Please rank your response in numerical order from 1 to 4, 1 being the most prevalent

Differences between East and West cultures and beliefs ☐

Differing corporate cultures ☐

Differing corporate ways of working ☐

Differing national cultures ☐

Other, ………………………………………………………………………. ☐

┌───┐
│ Please respond to the following questions by ticking the cells, │
│ which best fits your opinion │
└───┘

4. Who were the key players in the JV negotiation for the Project?

   Middle management of JV partners ☐

   Middle management of JV partners including project manager ☐

   Project Manager ☐

   Senior management of JV partners ☐

   Senior management of JV partners including project manager ☐

   Other, …………………………………………………………………. ☐

5. Did the JV negotiations include discussions about the following important project issues?

   Communication Yes ☐ No ☐

   Coordination Yes ☐ No ☐

   Information Yes ☐ No ☐

   Integration Yes ☐ No ☐

   Trust Yes ☐ No ☐

   Do not know if any of the above topics were discussed ☐

6. Did the JV negotiation involve any of the people who subsequently actually worked on the Project?

   Yes ☐ No ☐

7. Have the government's of the respective JV partners had any involvement on the Project?

   Yes ☐ No ☐

8. How many success stories are you aware of for similar JVs in Korea?

   ☐ One

☐ Two

☐ Three

☐ Four

☐ Five or more

SECTION H: MULTI-NATIONAL TEAMS

H.1   People and Culture

> Please respond to the following question by ticking the cells,
> which best fits your opinion

1. Is the study of culture relevant to the project management process?

    Yes ☐   No ☐

2. Which of the following local national cultural dimensions has affected management processes the most on the Project?

    Ambiguity   ☐

    Company rather than project loyalties   ☐

    Differences between corporate cultures   ☐

    Differences between national cultures   ☐

    Face   ☐

    Religion   ☐

    Other, …………………………………………………………………. ☐

3. Does non-compliance with local national culture by a project manager more likely to result in project failure?

    Yes ☐   No ☐

4. Can awareness of cultural issues be helpful to project managers in the pursuit of project success?

    Yes ☐   No ☐

H.2   *Multi-national project teams*

> Please respond to each of the following questions by ticking the cells,
> which best fits the Project

1. How many consultancy companies provided services to the JV on the Project?

    ☐   1 to 5

    ☐   5 to 10

    ☐   10 to 15

    ☐   15 to 20

    ☐   More than 20

2. How many different nationalities are directly involved in the Project?

    ☐   One

    ☐   Two

    ☐   Three

    ☐   Four

    ☐   Five or more

3. How many different nationalities are directly involved in the Project and based full-time in the host country?

    ☐   One

    ☐   Two

    ☐   Three

    ☐   Four

    ☐   Five or more

4. Have any of your Company staff previously worked for one of the JV partners?

    Yes ☐   No ☐

5. In terms of the total project workforce, what is the approximate percentage of specialist expatriate knowledge workers working on the Project?

    ☐   Less than 1%

    ☐   1 – 5%

    ☐   5 – 10%

    ☐   10 – 25%

    ☐   More than 25%

6. Which of the following terms best describe the project team on the Project?

Dispersed (remote and locally project-based) ☐

Multi-cultural dispersed ☐

Globally dispersed ☐

Locally project-based ☐

Multi-national dispersed ☐

Other, ……………………………………………………………. ☐

7. What are the most problematical issues related with managing dispersed JV project teams?

Please rank your response in numerical order from 1 to 9, 1 being the most problematical

Achieving a team spirit within the project team ☐

Acheiving clarity of communication ☐

Acheiving open communication between the project team people ☐

Achieving trust between all of the project team ☐

Conference calls instead of face to face meetings ☐

Document transmittals ☐

Fragmented discussions with language translations ☐

Language misunderstandings ☐

Structured communications ☐

Other, …………………………………………………………………………. ☐

None of the above, there are no particular problems ☐

SECTION THREE

SECTION I: INFORMATION, COMMUNICATION & COORDINATION

I.1   General

Please respond to the following questions by ticking the cells, which best fits your opinion

1. How is the relationship between your Company and JV partner(s) on the Project?

Very good   ☐

Very good but only lasted during the initial project stages   ☐

Good   ☐

Good but only lasted during the initial project stages   ☐

Defensive and geared to maximise profit   ☐

Other, …………………………………………………………………   ☐

2. Do you think that an effective communication system between your Company and external customers such as JV partner(s), consultants and suppliers is important?

Very important   ☐

Important   ☐

Not important   ☐

Please respond to each of the following questions by ticking the cells, which best fits the Project

3. How often do you gain feedback from JV partner(s) on the Project about your personal performance of the Project?

Never ☐   Some of the time ☐   Often ☐   Always   ☐

4. How often do the JV partners appraise the performance of key project personnel?

Never ☐   Some of the time ☐   Often ☐   Always   ☐

5. For what purposes is the feedback referred to in questions **I.1.3 and I.1.4** used?

Career development	☐	Improve service	☐
Business planning	☐	Image purposes	☐
Blame management	☐	Other	☐

…………………………………………………………………………………

…………………………………………………………………………………

6. Which of the following IT communication systems have been implemented on the Project?

Computer automated design (CAD)	☐
Company e-mail system	☐
Company Intranet	☐
Company server system	☐
Large file sending / sharing website	☐
Project Intranet	☐
Video conferencing	☐
Web-based collaborative PMIS	☐

Other, please specify…………………………………………………

7. What are the most problematical issues related with managing dispersed JV project e-teams?

Please rank your response in numerical order from 1 to 9, 1 being the most problematical

Achieving a team spirit within the project team	☐
Acheiving clarity of communication	☐
Acheiving open communication between the project team people	☐
Achieving trust between all of the project team	☐

Conference calls instead of face to face meetings ☐

Document transmittals ☐

Fragmented discussions with language translations ☐

Language misunderstandings ☐

Structured communications ☐

Other, ……………………………………………………………………… ☐

None of the above, there are no particular problems ☐

I.2 Documents

> Please respond to each of the following questions by ticking the cells, which best fits the Project

1. Which of the following IT document control systems have been adopted on the Project?

Company server system ☐

Company Intranet ☐

Large file sending / sharing website ☐

Web-based collaborative PMIS ☐

Other, please specify…………………………………………… ☐

J.1   Additional Personal Data

> Please respond to the following questions by ticking the cells,
> which best fits your personal profile

1. Which of the following best describe your core principle for project-based management in Asia?

   Consensus-based approach ☐

   Delegator ☐

   Fair but firm ☐

   Helicopter view approach (not interested in detail) ☐

   Need to know everything as the devil is in the detail ☐

   Strict disciplinarian ☐

   Other, ……………………………………………………………. ☐

2. Did you start your overseas career in Asia by applying these core management principles in the workplace?

   Yes ☐   No ☐

3. Have you adapted these core principles of management since working in Asia?

   Yes ☐   No ☐

4. If yes, a) after how long in Asia, b) why, and c) in what ways?

   a) …………………………………………………………………………

   b) …………………………………………………………………………

   …………………………………………………………………………

   …………………………………………………………………………

   c) …………………………………………………………………………

   …………………………………………………………………………

5. Do you have any basic philosophy to handle the management of dispersed teams and multiple project shareholders?

Yes ☐   No ☐

6. If yes, please explain:

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

7. Do you have any basic philosophy to manage the Project?

Yes ☐   No ☐

8. If yes, please explain:

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

J.2   Nexus between personal life and work life

Please respond to the following questions by ticking the cells, which best fits your opinion

1. What are the most challenging aspects of being a project-based expatriate living overseas?

   Being apart from the family household and friends back home   ☐

   Dependants having to constantly change schools   ☐

   Family having to constantly adapt to new surroundings   ☐

   Family adapting to a nomadic lifestyle   ☐

   Other, ……………………………………………………………….   ☐

2. What are the predominate personality traits of your family as a group?

   Adventurous   ☐

Conseravtive ☐

Inquisitive ☐

Social ☐

Other, …………………………………………………………………… ☐

3. What are the three main difficulties you encountered in settling your family in Korea?

   ☐ ………………………………………………………………….

   ☐ ………………………………………………………………….

   ☐ ………………………………………………………………….

4. How important is it for you to have your family with you during your project-based assignment in Korea?

   ☐ Very important

   ☐ Important

   ☐ Not important

5. Which of the following has given you more stress and pressure on overseas assignments?

   ☐ Maintaining a happy family in-country

   ☐ Managing project-related issues

   ☐ Neither, both equally pressurised

6. What are the most challenging aspects of working overseas?

   Communicating with the local people on the Project ☐

   Timely familiarisation with requirements of the Project ☐

   Timely familiarisation with the Project team ☐

   Understanding the local ways of working ☐

   Other, ……………………………………………………………. ☐

7. What are the three main differences you have encountered in the work place that differ between working in your home country and in Korea?

    ☐   …………………………………………………………………………….

    ☐   …………………………………………………………………………….

    ☐   …………………………………………………………………………….

8. How would you compare your current management style with your management style prior to your arrival in Asia?

    ☐   Not changed my style

    ☐   Slighty adapted style to suit the Korean environment

    ☐   Adapted style to suit the Korean environment

    ☐   Not sure

SECTION K: NEW WAYS OF WORKING

K.1 Return of experience (from the Project)

1. In order of importance, which of the following *hard* management-related topics was the most important for project success on the Project?

> Please rank your response in numerical order from 1 to 8,
> 1 being the most important

Cost reporting ☐

Detailed matrix of JV responsibilities ☐

Project and JV business plans ☐

Project and JV feasibilities and budgeting ☐

Project scheduling ☐

Project systems ☐

Signed Contract Agreements ☐

Training of technical topics to the local staff on the Project ☐

No ranking required, as all of the above are of equal importance ☐

2. In order of importance, which of the following *soft* management issues needed the most attention on the Project?

> Please rank your response in numerical order from 1 to 7,
> 1 being the most important

Develop a trust-based environment within the JV project team ☐

Develop an integrated culturally aware JV project team ☐

Develop collaborative working between all JV personnel ☐

Ensure appropriate staffing allocation by JV from outset of project ☐

Ensure clarity of direction provided to all parts of the project JV ☐

Ensure remotely-based JV personnel are part of the project team ☐

Maintain a respectful interaction between JV partners at all levels ☐

No ranking required, as all of the above are of equal importance ☐

3. Which of the following sporting analogies best describes your management responsibilities on the Project?

Please respond by ticking the cell, which best fits your opinion

☐ American football quarterback

☐ Boxing referee

☐ Cricket all rounder

☐ Last leg relay runner

☐ Premier league football manager

☐ All the above

Other, please specify……………………………………………

4. How do you manage and lead the project management on the Project?

………………………………………………………………………………

………………………………………………………………………………

………………………………………………………………………………

Please rank your response to the following in numerical order from 1 to 4, 1 being the most problematical

5. What are the most problematical project management issues you have most regularly faced on the Project?

Mis-communication between project people ☐

Non-compliance with written agreements ☐

Project people not following project manager directives ☐

Project-related discussions not being recorded in writing ☐

Other, ……………………………………………………………. ☐

6. In hindsight, would you set-up the staff organisation differently at the outset of another similar project?

<div align="right">Yes ☐   No ☐</div>

7. If yes, please explain why:

    …………………………………………………………………………………………..

    …………………………………………………………………………………………..

    …………………………………………………………………………….…………

    …………………………………………………………………………….…………

    …………………………………………………………………………………………..

K.2   Return of experience (from working overseas as a full-time expatriate)

1. Is it important for a foreign JV manager to have prior working experience in any given country before being a project manager in that country?

<div align="right">Yes ☐   No ☐</div>

2. If yes, please explain why?

    ………………………………………………………………………………………

    ………………………………………………………………………………………

    ………………………………………………………………………………………

3. Which of the following do you consider the most important management factors to acheive project success on construction megaprojects in Asia?

Please rank your response in numerical order from 1 to 9, 1 being the most important management factor

Awareness of all matters related with the project   ☐

Decisiveness when making project decisions   ☐

Ensuring the project has an appropriate initial organisational set-up ☐

Ensuring the project team is technically well-trained   ☐

Flexibility of thought to adapt to any given project situation ☐

Giving clear unambiguous instructions to the project team ☐

Interacting in a collaborative way with all project related people ☐

Making sure project team recruitment is well thought out ☐

Positively committed to the project at all times ☐

No need to rank, all of the above are of equal importance ☐

4. Which of the following do you consider a project manager on a JV construction megaproject in Korea needs to focus on the most to best ensure the project is less likely to be a failure for the foreign JV partner?

Please rank your response in numerical order from 1 to 9, 1 being the most necessary to focus on

Acceptance that change is inevitable ☐

Compromising your ethics to comply with local practices ☐

Having a consensual approach with the JV project team ☐

Having exemplary professional behaviour on the project ☐

Having personable negotiation skills ☐

Listening to JV project team members ☐

Openly showing respect to senior personal of JV partners ☐

Tolerant of other cultures ☐

Understanding the local culture ☐

No need to rank, all are of equal importance ☐

5. Do you consider it is more important for project managers to focus on *hard* management issues rather than *soft* management issues?

Please respond by ticking the cells, which best fits your opinion

Yes ☐

No ☐

Neither, the two management principles are interlinked ☐

6. If yes or no, please explain why.

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

7. Which of the following *soft* management principles do you consider the most important for a project manager to apply to successfully manage a construction megaproject in Asia?

Please respond by ticking 9 cells, which you consider the most important to achieve project success

Awareness	☐	Champion of one-teaming	☐
Clarity in communicating	☐	Collaborative in nature	☐
Cross-cultural awareness	☐	Decisive decision-making	☐
Diligent	☐	Fair but firm	☐
Hard working	☐	Harmonious	☐
Non-confrontational	☐	Political awareness	☐
Realistic	☐	Simplicity of thought	☐
Situational flexibility	☐	Structured in thought	☐
Trusted-based ethics	☐	Understanding of situation	☐

No response as all of the above are of equal importance ☐

8. Which of the following *soft* management principles do you consider the least important for a project manager to apply to successfully manage a construction megaproject in Asia?

Please respond by ticking 9 cells, which you consider the least important to achieve project success

Awareness	☐	Champion of one-teaming	☐
Clarity in communicating	☐	Collaborative in nature	☐
Cross-cultural awareness	☐	Decisive decision-making	☐
Diligent	☐	Fair but firm	☐
Hard working	☐	Harmonious	☐
Non-confrontational	☐	Political awareness	☐
Realistic	☐	Simplicity of thought	☐
Situational flexibility	☐	Structured in thought	☐
Trusted-based ethics	☐	Understanding of situation	☐
No response as all of the above are of equal importance			☐

Please respond by ticking the cells,which best fits your opinion

9. Which of the following terms best describe the Western expatriates in management positions that you have a working knowledge of in construction in Asia and consider to be very good at achieving project success?

Confident	☐
Curious	☐
Good communicator	☐
Individualistic	☐
Laid back	☐
Open to new challenges	☐
Professionally competent	☐
Sensible	☐

Serious ☐

Social ☐

Team player ☐

Other(s), please specify

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K.3   *Looking to the future*

1. Which of the following do you consider the most important management factors to acheive project success on construction megaprojects in Asia?

Please rank your response in numerical order from 1 to 9, 1 being the most important management factors

Be aware of all matters related with the project ☐

Be decisive when making project decisions ☐

Be positively committed to the project at all times ☐

Ensure the project has an appropriate initial organisational set-up ☐

Ensure the project team is technically well-trained ☐

Give clear unambiguous direction to the project team ☐

Have the flexibility to adapt to any given project situation ☐

Make sure project team recruitment is well thought out ☐

Interact in a collaborative way with all project related people ☐

2. Which of the following do you consider the most critical areas of mis-management that needs to be addressed to avoid project failure on construction megaprojects in Asia?

Please rank your response in numerical order from 1 to 8, 1 being the most critical areas of mis-management

Allowing a JV partner to take key staff positions at project outset ☐

Deviating away from the JV agreement ☐

Getting bogged down with minutae ☐

Hiring project people based on language rather position suitability ☐

Mis-understanding local national culture ☐

Not establishing a matrix of responsibilities for JV partner people ☐

Not establishing a strong initial core team on the Project ☐

Pandering to the needs of the company rather than the Project ☐

3. Which of the following personal attributes do you consider the most important for a project manager to have to successfully manage a construction megaproject in Asia?

Please rank your response in numerical order from 1 to 5, 1 being the main attribute

Adaptable ☐

Culturally sensitive ☐

Open-minded ☐

Patience ☐

Professionally expert ☐

4. The following management approach is important for a project manager to have to successfully manage a construction megaproject in Asia.

Answer by using the following marking scheme: 1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

Dynamic   1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Flexible	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Holistic	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Simple	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

5. The following personal trait is important for a project manager to have to successfully manage a construction megaproject in Asia.

> Answer by using the following marking scheme:
> 1 – strongly agree, 2 – agree, 3 – unsure, 4 – disagree, 5 – strongly disagree

Affable	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Aggressive	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Compassionate	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Confident	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Curious	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Customer centric	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Good communicator	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Good sense	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Honest	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Laid back	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Leader	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Open to challenges	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Open-minded	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Personable	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Rigorous	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Serious	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Social	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

6. Do you think it would be of benefit to Western project managers to have a framework to improve project management skills on PBIJV construction megaprojects in Asia?

    Yes ☐   No ☐

7. What if anything would you have done differently in your expatriate adventure?

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8. What advice would you give to another expatriate embarking on an expatriate lifestyle in the construction?

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SECTION L: INTERVIEWEE ADDITIONAL COMMENTS

Please take the opportunity to make any comments you may have here:

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I appreciate your assistance, please complete the questionnaire in advance of possible follow-up interviews for clarification and additional in-sight purposes.

Thank You Very Much for your time and highly valued professional opinions.

APPENDIX A.25

VALIDATION QUESTIONNAIRE

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

A FRAMEWORK ASSESSMENT

1 Factors identified in the Framework help Western PMs improve how to project manage in Asia

2 The key to project success for Western PMs in Asia is understanding the National Culture

3 Neither the Western Way nor the Eastern Way is the only way to project manage

4 Project management has at its core a combination of *hard* and *soft* management principles and skills

5 The Framework is easy to understand and follow

6 The inclusion of the first column of data, starting with *Project Success* improves the Framework

7 The inclusion of the last column of data, starting with *Roof / Gondola* improves the Framework

8 It is clear that the *Elevators* column depicts the PM skillset in order of importance from entry

9 It is clear that the *Roof / Gondolas* row depicts the Key to Factor for Project Success in Asia

10 It is clear that the *Dampers* row depicts the Key Factor for PMs to project manage in Asia

11 It is clear that the data in the *Tower Work Areas* depict the Key Dimensions for PBIJV & JV PMs

12 The Factors & Dimensions in the Framework are familiar

13 The Framework provides a sound basis for future research into project management in Asia

14 The Framework could be implemented for project management in Asia without much training

15 Your senior management would use the Framework on projects in Asia for awareness purposes

16 Please comment on how you consider the framework could be enhanced:

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	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

B FRAMEWORK ENHANCEMENT

B.1 PBIJV SUCCESS FACTORS

1 Include *Important for PM to live with family during project-based assignment* in *PBIJV* data column

| ☐ | ☐ | ☐ | ☐ | ☐ |

2 Include A*chieving a coherent working team with a one-teaming philosophy* in *PBIJV* data column

| ☐ | ☐ | ☐ | ☐ | ☐ |

3 If you consider a Key Dimension(s) is missing from the *PBIJV* data column, please comment:

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B.2 MAIN PBIJV PROBLEMS

1 Include *Having conference calls instead of face-to-face meetings* in *PBIJV* data column

| ☐ | ☐ | ☐ | ☐ | ☐ |

2 If you consider a Key Dimension(s) is missing from the *PBIJV* data column, please comment:

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B.3 PBIJV MAIN RISKS

1 Include *Politics* in *PBIJV* data column

| ☐ | ☐ | ☐ | ☐ | ☐ |

2 Include *Differences between East and West culture and beliefs* in *PBIJV* data column

| ☐ | ☐ | ☐ | ☐ | ☐ |

3 If you consider a Key Dimension(s) is missing from the *PBIJV* data column, please comment:

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	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
C PROJECT-BASED INTERNATIONAL JOINT VENTURES (PBIJVs)					
1 Excellent planning involves the daily input of all members of the project team	☐	☐	☐	☐	☐
2 Motivation of the project team is only necessary in times of difficulty	☐	☐	☐	☐	☐
3 The only real act of motivation appreciated by project team members is a salary increase	☐	☐	☐	☐	☐
4 The only real measure of project success is for the JV to cleectively exceed the budgeted profit margin	☐	☐	☐	☐	☐
5 Achieving clear and transparent communications on projects is always a problem on projects	☐	☐	☐	☐	☐
6 It is not necessary to have remotely-based project consultants on megaprojects	☐	☐	☐	☐	☐
7 There is no downside in having video conferencing on projects instead of face-to-face meetings	☐	☐	☐	☐	☐
8 The difference between Asian ways and Western ways of working in the workplace is minimal	☐	☐	☐	☐	☐
9 Expatriate families can adapt with the minimum of fuss to any location	☐	☐	☐	☐	☐
10 JV partner companies from different countries will not have the same corporate culture	☐	☐	☐	☐	☐
11 Common international standards and regulations do not exist in construction in the industrialised world	☐	☐	☐	☐	☐
12 All companies in construction have the same corporate culture of existing to make a profit	☐	☐	☐	☐	☐
13 It is possible to have a project team on a JV to work towards project success with a one-team ethic	☐	☐	☐	☐	☐
14 Family life for an expatriate is a release from the stress of the workplace	☐	☐	☐	☐	☐

15 Comments (if any):

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	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
D LEAD JV COMPANY WESTERN PROJECT MANAGER (PM) IN ASIA					
1 Good project management is best suited to a standard way of working	☐	☐	☐	☐	☐
2 PMs need to be open-minded to adequately address the daily variables, which occur on projects	☐	☐	☐	☐	☐
3 PMs should be technically professionally competent in project management	☐	☐	☐	☐	☐
4 PMs need to be strong-willed characters to ensure the project team follow the PMs lead	☐	☐	☐	☐	☐
5 PMs need to be flexible characters to cater for the idiosyncrasies of the local environment	☐	☐	☐	☐	☐
6 PMs should not focus on any set of particular project dimensions	☐	☐	☐	☐	☐
7 PM skills in construction in Asia need to improve more than in the West	☐	☐	☐	☐	☐
8 Korean project staff have consistent and predictable ways of working	☐	☐	☐	☐	☐
9 Man management skills are more important than technical project management skills for a PM	☐	☐	☐	☐	☐
10 The economic environment should not affect the long-term project management strategy on a megaproject	☐	☐	☐	☐	☐
11 Managing megaprojects with multi-cultural teams require the same PM skillset regardless of location	☐	☐	☐	☐	☐
12 PMs cannot be both structured and have situational flexibility	☐	☐	☐	☐	☐
13 PMs need to be aware of all project-related matters	☐	☐	☐	☐	☐
14 PMs need more than one management style to successfully project manage in Korea	☐	☐	☐	☐	☐

15 Comments (if any):

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