

**FACTORS AFFECTING MALAYSIA–CHINA  
CONSTRUCTION JOINT VENTURE PROJECTS**

**by**

**MO XUAN**

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for the degree of  
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**FAKTOR YANG MEMPENGARUHI PROJEK USAHA SAMA  
PEMBINAAN MALAYSIA–CHINA**

**oleh**

**MO XUAN**

**Teisi yang diserahkan untuk  
memenuhi keperluan bagi  
Ijazah Sarjana Sains**

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## LIST OF ABBREVIATIONS

AGC	:	Associated General Contractors of America
AIA	:	American Institute of Architects
ASEAN	:	Association of South-East Asian Nations
BOO	:	Build, Own and Operate
BOOT	:	Build, Own, Operate and Transfer
BOT	:	Build, Operate and Transfer
CEAM	:	China Enterprises Association in Malaysia
CIDB	:	Construction Industry Development Board
CJV	:	Construction Joint Venture
CNC	:	China's Contractor
Dept.	:	Department
DRM	:	Dispute Resolution Method
EPC	:	Engineering, Procurement and Construction
FAM	:	Financial and Accounting Management
FIDIC	:	International Federation of Consultant Engineers
ICE	:	Institute of Civil Engineers
ICJV	:	International Construction Joint Venture
IJV	:	International Joint Venture
JV	:	Joint Venture
MCCJV	:	Malaysia-China Construction Joint Venture
MNC	:	Multinational Corporation
MYC	:	Malaysia's Contractor
MYJV	:	Malaysia's Joint Venture
No.	:	Number
PMT	:	Project Management Team
PPP	:	Public Private Partnership
R&D	:	Research and Development

RII : Relative Importance Index  
RM : Malaysia Ringgit  
SD : Standard Deviation  
SPSS : Statistical Package for Social Science  
USD : U.S. Dollar

# **FAKTOR YANG MEMPENGARUHI PROJEK USAHA SAMA**

## **PEMBINAAN MALAYSIA–CHINA**

### **ABSTRAK**

Pertumbuhan pesat ekonomi dunia sejak beberapa tahun kebelakangan ini, menjadikan usaha sama di peringkat antarabangsa (international joint venture, IJV) semakin popular di kebanyakan negara, begitu juga dalam bidang industri. Dalam usaha berkongsi risiko, penyempurnaan atau integrasi sumber, pengawalan autoriti, dan sebagainya, IJV telah digunakan secara meluas sebagai suatu bentuk saingan oleh syarikat multinasional dan organisasi lain yang memasuki saingan global. Justeru, IJV telah lama menarik perhatian para sarjana, dan sebilangan kecil mereka mendapati bahawa hampir separuh daripadanya tidak menunjukkan prestasi yang memuaskan, teruk dan ada yang gagal. Berbeza dengan literatur lalu, yang kebanyakannya menekankan tentang IJV di negara maju dan negara sedang membangun, kajian ini menjalankan penyelidikan tentang integrasi IJV di dalam industri pembinaan di Malaysia, iaitu di antara Malaysia dan China. Faktor yang mempengaruhi prestasi IJV dikelaskan kepada empat (4) kumpulan: institusi, struktur, rakan kongsi dan setiap projek terdiri daripada beberapa subfaktor. Dari sudut persektif pengurusan projek, penyelidikan ini bertujuan mengenal pasti faktor yang mempunyai kesan negatif terhadap prestasi projek usaha sama pembinaan Malaysia-China (MCCJV). Penyelidikan ini menggunakan kaedah kuantitatif dan kualitatif. Soal selidik kajian menggunakan skala Likert 5-poin dijalankan dalam kalangan populasi yang terdiri daripada personnel pengurusan di 29 buah kontraktor



di Malaysia dan 12 kontraktor di China. Sebanyak 46 soal selidik yang diterima diproses menggunakan SPSS (version 17.0). Ujian statistik deskriptif, indeks yang relatifnya penting, dan sampel berpasang digunakan. Bagi kajian kualitatif, kajian kes yang mengkaji 2 projek yang melibatkan MCCJV dijalankan. Data sekunder diperoleh daripada pelbagai saluran seperti literatur, penerbitan, arkib, sumber berita dan sebagainya. Ditemui bahawa projek MCCJV secara negatifnya dipengaruhi terutamanya oleh keadaan politik dan makroekonomi, jurang budaya, kontrak JV yang tidak lengkap, struktur yang tidak sesuai, kekurangan pengalaman, hubungan antara rakan kongsi yang lemah, pengurusan sumber manusia dan kewangan, ketidakserasian dan sebagainya. Di samping itu, status rakan kongsi China sebagai sekutu yang strategik tidak dimanfaatkan, sebaliknya dianggap sebagai rakan kongsi subkontraktor. Justeru, beberapa kesimpulan dan cadangan dibentangkan, yang bertujuan meningkatkan prestasi MCCJV pada masa depan. Begitu juga dengan batasan dan saranan penyelidikan bagi kajian masa depan.

**FACTORS AFFECTING MALAYSIA–CHINA  
CONSTRUCTION JOINT VENTURE PROJECTS**

**ABSTRACT**

With the world's economic globalization growing at a rapid pace over the past years, the international joint ventures (IJVs) have been popular increasingly in a large number of countries, as well as many industries. For the purposes of sharing risk, complementing or integrating resources, authority regulatory etc., the IJVs have been widely utilized as a competitive form by the multinational enterprises and other organization entering into global cooperation. Therefore IJV has long been drawing attention by so many scholars, a few of whom found that more than half of the past IJVs performed unsatisfactorily or poorly, even failed. Differentiating from the majority of past literatures that focused on the IJVs between developed and developing economies, this study conducts the research on the integrated IJVs in Malaysia's construction industry created by 2 emerging economies, Malaysia and China. The negative factors that influence the performance of IJVs are classified into 4 groups: institutional, structural, partner-related and project-specific each comprising a few sub-factors. From the perspective of project management, the research aims to identify the factors that have negative effects on the performance of Malaysia-China construction joint venture (MCCJV) projects. The research deploys both quantitative and qualitative methods. The questionnaire survey using 5-point Likert scale is conducted among the population comprising managerial personnel of both 29 Malaysia's and 12 China's contractors across the nation, with the data of 46

response questionnaires processed by SPSS (version 17.0). The tests of descriptive statistic, relative importance index and paired-samples are deployed. The qualitative study is by means of case studies that examine 2 projects both involving MCCJVs. Secondary data has been gained from multiple channels such as literatures, publication, archives, news and so on. It is found that the MCCJV projects are negatively influenced mainly by the political and macroeconomic condition, culture distance, incomplete JV contract, inappropriate structure, experience shortage, poor inter-partner relation, financial and human resources management, incompatibility etc. Additionally the Chinese partners' status as strategic ally was downgraded, instead performing like their partners' sub-contractors. Accordingly, a number of conclusions and recommendations are presented, aiming to improve the performance of MCCJVs in the future. At last are the research's limitation and suggestion for future study.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Research Background**

As the world economy globalizes increasingly, the strategic alliance has been developing since 1970s. As a form of strategic alliance, the international joint venture (IJV) is the creation of a separate organization whose stock is shared by 2 or more cross-border partners in which they both hold equity ownership (Contractor and Lorange, 1988). Geringer and Hebert (1989) defined an IJV as a joint venture that involves at least 2 organizations that contribute equity and resources to a semi-autonomous legally separate entity with at least one partner headquartered outside the JV's country of operation.

Malaysia has experienced skyrocketing economic growth during the early 1990s of about 8 % per year (Ainuddin et al., 2007), and is expected to infuse more investment in building new infrastructures in the future. In order to seek accesses in overseas markets where the capital, construction capacity and technology can be transferred, a large number of multinational corporations from North America, West Europe, Japan and Korea which are highly industrialized have been engaging in the construction market for dozens of years in Southeast Asia including Malaysia.

China has always remained close ties in nearly all economic sectors with Malaysia which in ASEAN first normalized diplomatic relationship with China. ASEAN-China free trade area that has been formally founded in the early of 2010 will better enhance the relationship between the 2 parties and boost the cooperation in trade and construction. China's contractors have been involved in the Southeast Asia market for dozens of years. For instance, the second cross-strait bridge being built in Penang is contracted by the Malaysia-China construction joint venture, with

the loan of 800 million USD offered by China Import & Export Bank. Over the next decades, Malaysia will have considerable potential in cooperation of infrastructure construction, and form ICJVs with China.

## **1.2 Problem Statement**

Though evolving for dozens of years and with a few advantages, the IJVs still have a number of drawbacks that have not been overcome yet and restrain the operations, summarized as follows:

- (1) multi-hierarchy structure which adds the complexities to the management, lowers the efficiency, and finally incurs the cost overrun or profit loss;
- (2) divergences and disputes induced by the parties with different strategies, objectives and ideologies;
- (3) responsibilities and obligations not classified in the agreement before the formation of the IJVs resulting in the slowdown of progress, disorder, eventually the breakdown or failure of the IJVs;
- (4) managers, personnel and labour from different nations leading to cross-culture disputes, misunderstandings, even conflicts.

Due to these major factors listed above and others, less than half of all alliances perform satisfactorily (Das and Teng, 2000) and more than 60% of these partnerships failed (Spekman et al., 1996). For instance, in the middle of 1990s Singapore's House Development Bureau awarded a project of residential buildings valued at 120 million Singapore dollars to an ICJV involving a local company and a China contractor which entered in overseas market for the first time. However, the problems immediately arose after the commencement of project. The applications for employment passes for China company's staff were rejected by the Singapore

Immigration Department. It was very difficult for the ICJV to obtain the right staff in a timely manner, leading to the serious delay of progress and poor quality. What was worse, when the China company provided initial funds for setting up the JV, it transferred USD to the Singapore dollar. By April 1998, the exchange rate had dropped 25% due to the Asian currency crisis. It was estimated that China's company lost at least 1 million USD in this JV project due to the cost overruns, possible liquidated damages, and foreign exchange losses (Li et al., 1999).

In Malaysia, a huge hydroelectric project has been completed by the ICJV established by 6 host contractors and a China's contractor, each holding 70% and 30% equity, respectively. With respect to the structure, under the ICJV there also existed 2 sub-JVs formed by the 6 local partners, largely complicating the structure of ICJV. Additionally, the labour came from different nations including Malaysia, China, Indonesia, Pakistan and Bangladesh (He, 2007). During the construction process all the problems noted above arose time by time, which though were resolved by the ICJV's effort, eventually resulted in the delay of completion and overrun of cost.

### **1.3 Research Aim and Objectives**

The aim of this research is to explore the influential factors of the integrated joint ventures in Malaysia's construction sector, which are jointly created by Malaysia's and China's contractors. To achieve this aim, the following 2 objectives are proposed:

- (1) to identify the factors affecting the performance of MCCJV projects, especially the existing obstacles and barriers which probably have negative impacts on the performances or even cause the failure;

(2) to propose recommendations and solutions that can effectively help the MCCJVs overcome these problems and promote the performances.

#### **1.4 Research Questions**

(1) What are the factors that negatively affect MCCJVs?

(2) Are there any improvements or strategies that can be made to promote the performance of MCCJVs?

#### **1.5 Brief on Research Methodology**

The targeted group of this dissertation is mainly on both Malaysia's and China's construction companies in Malaysia. The methodology of this research divided into 2 sources. These are as following:

##### **1.5.1 Primary Data**

The primary data will be mainly obtained through questionnaire survey. Questionnaire method will be chosen because of the area of study can be wide and data obtain is from more variety. A number of samples will be distributed to both countries' construction contractors within Malaysia.

##### **1.5.2 Secondary Data**

Secondary data will be gathered through literature reviews from references such as books, local and international journals, published proceeding conferences (local or international) reports, online database etc.

## **1.6 Data Analysis and Techniques**

The analysis will focus on the data collected via the questionnaire and from the various sources mentioned in the above section. All data will be analyzed using the SPSS software (Version 17.0).

## **1.7 Research Scope**

This study was conducted across Malaysia that consists of 2 parts, the West and East, both having incorporated China's construction companies as well as their CJV projects. The research focused on both Malaysia's and China's construction companies that have the experience of performing JV projects, from which the data could be collected.

## **1.8 Outline of the Thesis**

This thesis is comprised of 7 chapters, following chapter 1, the rest is divided into another 6 chapters denoted as follows:

### **Chapter 2—Literature Review**

This section overviews the literatures associated with the area that the research focuses on, ranging from the ones published at the time when the IJVs started emerging to the most newly revealed ones;

### **Chapter 3—Research Methodology**

The method, theories about conceptual framework, quantitative and qualitative techniques, as well as resources for acquiring the primary data and secondary data respectively are presented in this chapter.



#### Chapter 4—Survey Results

With the quantitative data collected by questionnaires, the population of sample is described, and the data is processed by deploying the designed method, then generating the results that are the rankings of negative factors;

#### Chapter 5—Case Studies

Besides the survey, the qualitative method is also introduced by means of case studies, in which 2 projects both involving the MCCJVs are deeply examined;

#### Chapter 6—Findings and Discussions

Based on the survey and case studies, this part identifies and discusses the factors that negatively affect the performance of MCCJV projects;

#### Chapter 7—Conclusions and Recommendations

Finally, regarding the research questions previously raised and the expected research objectives, the conclusions are drawn in the last chapter which also proposes a number of relevant recommendations.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Strategic Alliance

Driven by gradually growing economic globalization, since 1970s the form of strategic alliance has been emerging and rapidly spreading around the world. Tsang (1998) defined the strategic alliance as a long-term cooperative arrangement between 2 or more independent firms that engage in business activities for mutual economic gain. In principle, all strategic alliances may be thought of as co-alignments between 2 or more firms in which the partners seek to learn and acquire from each other products, skills, technologies, and knowledge that are not available to other competitors (Lei et al., 1997).

Strategic alliances are now a central strategic component and a core offensive and/or defensive competitive weapon (Holmberg and Cummings, 2009). With increased globalization, alliances between multinational firms are becoming popular (Harrigan, 1988). For instance, more than one third of the revenues of the top 2,000 U.S. and European companies come from alliances (Harbison et al., 1997).

The past researches classified the form of strategic alliance into many diverse types including marketing and distribution agreements, franchising, co-production agreements, licensing, joint ventures, research and development arrangements, project-oriented alliances and so on (Tsang, 1998; Holmberg and Cummings, 2009). Besides there exist a few other different classification ways, which however have no substantial difference from the former one.

## **2.2 Definition of Joint Venture**

As one type of the strategic alliance, joint ventures have been widely deployed by a growing number of companies and organizations in many industries. The number of joint ventures formed between firms from different countries has increased dramatically in the past 3 decades (Hambrick et al., 2001). When the JV started to emerge, Pfeffer and Nowak (1976) defined that a joint venture exists as results of legally and economically distinct formal entities created by 2 or more parent firms that collectively invest capital and other resources to pursue certain strategic objectives.

With the JVs evolving and spreading during the past decades, scholars and organizations have drawn other conclusion of JV's definition. Geringer and Hebert (1989) defined that a joint venture involves at least 2 organizations that contribute equity and resources to a semi-autonomous legally separate entity. Barringer and Harrison (2000) concluded that a JV is an entity that is created when 2 or more firms pool a portion of their resources to create a separate jointly owned firm.

As long as at least one partner of a JV is headquartered outside the JV's country of operation, it can be called an international joint venture (Geringer and Hebert, 1989). In the opinion of Beamish and Berdrow (2003), IJVs are a form of international cooperative agreement which bring together 2 or more firms to engage in a joint activity, to which each member contributes resources and hopes to extract resources of higher value.

Lukas (2007) defined that a joint venture is an agreement between 2 or more legally independent companies, which pool their capabilities and resources together to a shared business. The joint venture becomes an international joint venture if at least one foreign partner is involved. DePamphilis (2010) concluded 5 key characteristics of JVs, described as follows:

- (1) independent entity involving 2 or more parties;
- (2) may be organized as a corporation, partnership, or other legal or business organization selected by the parties;
- (3) ownership, responsibilities, risks, and rewards allocated to parties;
- (4) each party retains corporate identity and autonomy;
- (5) created by parties contributing assets for a specific purpose and for a limited duration.

### **2.3 Motives of Creating International Joint Ventures**

Under the background of globalization the firms or multinational corporations are motivated by various factors to create IJVs in the world markets. The dizzying pace of international competition increased the demand for alliances and IJVs to enable companies to enter markets in which they lack production or distribution channels or in which laws prohibit 100% foreign ownership of a business (DePamphilis, 2010). This is a classic explanation with respect to the motives of creating JVs. In consistent with this viewpoint, the motives driving the formation and growth of IJVs are categorized as 2 major aspects, namely the resource- and entry-based motives.

### **2.3.1 Resource-Based Motive**

It is noted that all the JV's definitions of previous literatures mentioned above all refer to that in a JV each partner contributes respective resources or aims at acquiring the resources it lacks. Based on Resource-Advantage (R-A) theory of competition (Hunt, 2000), Deitz et al. (2010) concluded that the distinctive competences held by JVs result from resources contributed by 2 or more parent firms. Pooling of similar assets is known as a scale alliance, by contrast pooling of complementary assets is known as a link alliance (Dussauge et al., 2004; Daniels and Perez, 2007).

#### **2.3.1.1 Resource Integration**

Under the circumstances of increasing global competition, the emergence of new markets, and rapid technological change, it is difficult for a single firm to possess all resources needed to develop and sustain existing competitive advantages while simultaneously trying to build new ones (Dyer and Singh, 1998). A common reason for joint ventures is the need to pool resources when no single company can effectively self-handle all operational aspects (Das and Teng, 2000).

When it comes to a complex international business activity which involves huge investment, extremely sophisticated technologies, high level managerial knowledge and other resources, neither a corporation nor a country is able to achieve it alone. For example, the Hong Kong International Airport (HKIA) project, with the contract sum of 10.1 billion Hong Kong dollars, involved a considerable number of newly developed technologies and workmanships. Sometimes the quantity of works valued

at 500 to 600 million dollars had to be completed per month. In accordance with the contract, the owner could refuse payment and even exert fine if the contractor loses the milestone, hence requiring the contractor should have qualified capacity of financing, technological competences etc. No single contractor was able to complete the massive works and withstand the greatly high risk alone. Eventually it was constructed by a number of local and foreign contractors which integrated their resources together, simultaneously sharing the high risk of failure (Lu, 2006).

### **2.3.1.2 Resource Complementary**

Lambe et al. (2002) defined resource complementary as the extent to which partners are able to eliminate deficiencies in each other's portfolio of resources and thereby bolster each party's ability to achieve business goals. Resource-Advantage theory suggests that resource complementary between partners provides firms with access to idiosyncratic resources and resource combinations, enabling JV parents to gain (counter) competitive resource (dis) advantages (Deitz et al., 2010). The resource complementary has been playing a key role in motivating the IJVs, especially between developing and developed nations.

Usually in the IJVs the developed countries contribute the capitals, technologies, management etc. while indigenous partners in developing economies form a bridge to local political and commercial circles and to the public, to facilitate the access to the market (Ahn and Bochum, 1980). IJVs with local firms emerge as the most preferred mode of foreign market entry for multinational corporations entering

developing country markets (Lee and Beamish, 1995).

JV project based companies exist both as a mode of foreign investment and as a means of technology transfer. They have increasingly become the dominant form of international business growth for multinational enterprises seeking expansion opportunities in both developing and developed markets (Gale and Luo, 2004). It is widely argued that IJVs provide a platform for organizational learning, creating opportunities for firms to access the skills and competencies of their partners (Kogut, 1988). Successfully establishing a JV not only offers opportunities for expansion but also brings both parties' valuable skills together to carry out projects effectively and efficiently (Gale and Luo, 2004).

### **2.3.2 Entry-Based Motive**

In many countries, wholly owned foreign contracting or consulting firms are not allowed to establish. As a result creating IJVs with local partners is the prerequisite for entering the markets. For instance, in India any foreign firm aspiring to contract engineering project has to found a JV with Indian partners holding the equity ownership of more than 60%. Pakistan Engineering Council mandates that foreign contractors should form JVs, with local corporations holding at least 30% equity ownership; as long as the local partner holds more than 51% equity, the IJV can be entitled to the 7.5% preference of bidding price (Lu, 2006).

In developing countries the attractiveness of foreign investment through JVs is that they are a means of stimulating market development, acquiring advanced

technology and developing managerial skills necessary to create further economic growth (Gale and Luo, 2004). Even in the highly developed nations (i.e. United States), the regulatory authorities are prone to favorably encourage JVs, because they are viewed as the alternatives to mergers or acquisitions which may lead to the decline in number of firms and monopoly in the industries.

#### **2.4 Classification of Joint Ventures**

Though as one mode of strategic alliance, JVs is further classified into various types by different ways. In terms of equity Contractor and Lorange (1988) grouped the JVs into 2 broad types, namely the equity joint ventures which involve each parent company investing equity in a new entity-the JV company, in contradistinction to the non-equity joint ventures (Glaister et al., 2003).

JVs is classified into 8 types of agreements-licensing, technology, exploration, manufacturing, marketing, and R&D, supply, and equipment manufacturing/value added reseller by the Thomson Financial SDC Platinum Alliances/Joint Ventures database which defines that licensing agreement JVs arise when one partner grants an exclusive, simple or cross licensing agreement to another partner; technology agreement JVs are created when an existing or new technology is transferred from one partner to another; exploration agreement JVs are formed in order to explore natural resources, such as oil, gas or minerals; manufacturing, marketing, and R&D agreement JVs are deals which are based on some kind of manufacturing, marketing or R&D agreement among the partners; in supply agreement JVs, one or more



participants supply materials to other participants who then make use of the materials to create finished products; in equipment-manufacturing/value-added reseller agreement JVs, the original manufacturer supplies a product to create and add value to a final product, usually computer equipment or software (Moskalev and Swensen, 2007). This way of classification is based upon the combination of industry and how the JV is operated.

In the construction markets, there are generally 2 kinds, which are contractual JVs and incorporated JVs. The contractual form has been employed the most widely, because this form is relatively straight-forward to set up and bring to close without the need to establish a separate legally incorporated company, unlike the later ones. Furthermore, the contractual CJVs are classified into 2 forms, namely the integrated JV and non-integrated JV (Norwood and Mansfield, 1999). Ho et al. (2009) defined the 2 forms completely as follows:

In integrated JV, all partners jointly share profits and risks and the JV officers make most of the decisions, which will be followed by all partners. Plus, close coordination and frequent communications are extended to all levels of a JV organization; by contrast, in non-integrated JV, a project is divided into a few distinctive sub-tasks and each partner is primarily responsible, technically and/or financially, for its assigned tasks and makes decisions directly without formal consent from other partners. Compared with the former one, the advantage of non-integrated form is that for the contractors entering into the partnership, each can complement the others skills. However, there is a disadvantage that some contractors

have to put in more effort than others, thus leading possibly to internal conflicts at a later stage (Norwood and Mansfield, 1999).

By means of investigating dozens of contractors in UK, Norwood and Mansfield (1999) found that more than 3 quarters of the companies viewed integrated JVs as the most acceptable approach for civil engineering works. Surprisingly, non-integrated JVs were not that popular amongst the managers interviewed, even though this form of partnership is employed frequently within construction. Ho et al. (2009) maintained that the choice of CJV governance structure (integrated or non-integrated forms) can be largely influenced by 4 major factors, namely, corporate cultural difference, trust, needs for procurement autonomy, and motivation for learning.

## **2.5 Criteria for Measuring Joint Venture's Performance**

### **2.5.1 Joint Venture's Performance**

One of the key aspects of the researches on JVs is the performance assessment. Despite their increasing importance, the JVs' rate of success or extent of satisfactory can hardly be compatible with their highly growing speed. Previously, from various perspectives lots of researches have surveyed the overall performance of JVs or alliances. Spekman (1996) found that more than 60% of partnerships failed. Beamish and Delios (1997) revealed that an average of 2 in 5 IJVs are perpetual strugglers or outright failures. Das and Teng (2000) disclosed less than half of all alliances perform satisfactorily. According to Boateng and Glaister's finding (2002), a

considerable number of IJVs are reported to have performed poorly with estimated rates of instability and unsatisfactory performance ranging from 37% to over 70%.

### **2.5.2 Criteria for Performance**

Though these scholars' findings are in common with regard to the JVs' performance, the criterias they used for indicating the performance are diverse and controversial. Hence a question needs to be addressed-how to assess whether a JV performs successfully or poorly or fails? However, as of now there is yet no universal criteria. For instance, it is suggested that a JV can be viewed as successful if it improves the competitive position of parent firms (Harrigan, 1985). Some scholars argued that technology transfer is the key objective of a firm in entering into the JV and that the JV will be regarded as successful if the parent firm learns from its partner about technology and management know-how (Kogut, 1988) Dymsha (1988) defined the successful JVs as those which survive over a reasonable period of time (generally over 8 years), with the major parties involved perceiving sufficient benefits in relation to costs.

Gale and Luo (2004) offer a further criterion for successful JVs: both partners and host government perceive sufficient benefits in relation to costs, as well as satisfying their strategic objectives. Geringer and Hebert (1991) categorized the existing studies into 3 groups depending on a variety of criteria used to assess IJV performance:

- (1) early studies relying on a variety of traditional financial indicators such as profitability, growth and cost position;
- (2) other studies using objective measures of performance such as the survival of the IJV, its duration, instability of its ownership, renegotiation of the IJV contract, and dissolution;
- (3) subjective assessment of a parent's satisfaction with IJV performance.

From these viewpoints cited above there is yet no consensus on the issue. There are 3 main difficulties in evaluating the success of IJVs. The first one is to decide whose performance should be assessed, i.e., a partner, the IJV itself, or the operation/project; the second difficulty is to decide whether IJV performance should be measured using subjective or objective indicators or a combination; the third is to identify a complete and valid list of determinants of performance and to define the relationships between these determinants (Ozorhon et al., 2010). However, that is not surprising in that JVs are established for a number of different reasons in a variety of circumstances (Killing, 1983; Contractor and Lorange, 1988; Porter and Fuller, 1986). The assessment of performance is related to the objectives under which a JV is formed (Beamish and Delios, 1997), and varies according to the type of JVs and industry (Holmberg and Cummings, 2009). What is more, the performance of JVs can be evaluated in terms of the criteria that are tangible or intangible, objective or subjective, qualitative or quantitative etc., making the evaluation so complex that it is impossible to define the standard criteria for measuring the performance of JVs, which is applicable in all nations, industries, partners, and all the times.

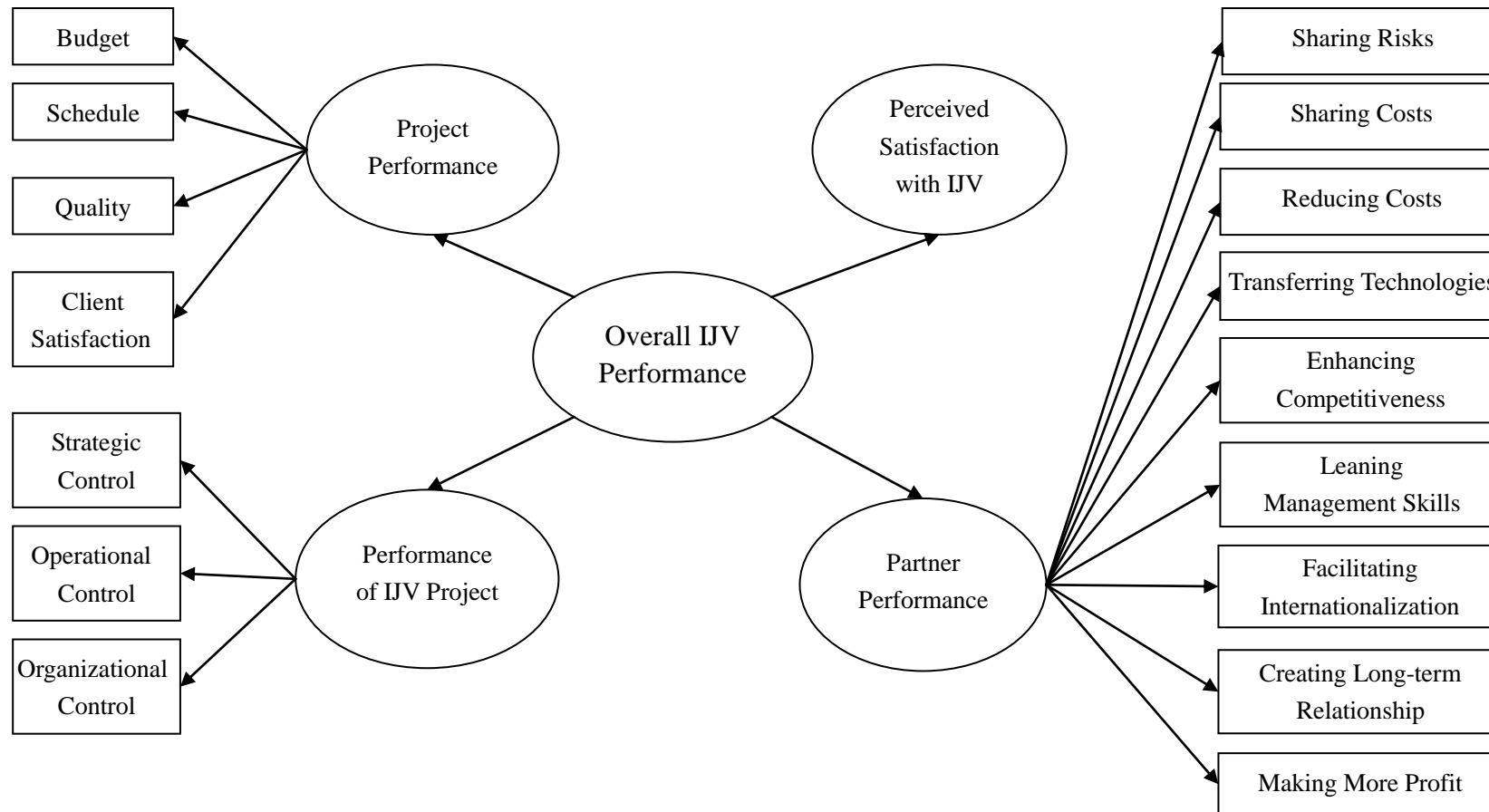
### **2.5.3 Criteria for Construction Joint Venture**

Fundamentally, in construction industry what is utilized to measure the performance of a project is a 3-dimension criteria that consists of cost, time and quality. The contractor successfully completing a construction project generally has

- (1) controlled the cost under the budget, gaining expected profit; and
- (2) completed all the works within the time stated in the contract; and
- (3) ensured the quality that meets the client's requirements.

Usually, the client's satisfactory is also dependent upon the criteria above. While evaluating the performance of a CJV, the 3-dimension criteria is not enough, other measurements need to be taken into account, including the win-win situation, establishing relationship with partners over the long run, learning success, gaining market share etc.

For measuring the performance of ICJVs, Ozorhon et al. (2010) developed a model, in which the measurement is defined by a 4-dimensional construct that considers the performance of the project, the JV partners, the JV organization itself, and the perceptions of the JV partners. The model was then tested and proved to be valid. Its structure is shown in the following chart (Figure 2.1):



**Figure 2. 1: The Model for Measuring CJV Performance**

**Source:** Ozorhon et al. (2010)

## **2.6 Factors Influencing Joint Ventures' Performance**

With the JVs' performance and measurement criteria examined, another question needs to be deeply addressed: what are the factors affecting the JVs' performance? This is definitely the most significant theme for scholars and researchers to explore. Beyond assessing whether a JV is operated successfully or poorly, or eventually fails, it is the factors behind JV's performance that cause the success, unsatisfactory or failure that should be clearly identified. The firms or corporations can never better manage the JVs and further promote the performance until this issue is addressed. Given the importance of these factors, a considerable number of researches have been conducted regarding this topic.

### **2.6.1 Classification**

Because of the complexity of JVs there are a variety of influences that affect the performance and differentiate according to the operation environments, as well as the criteria of measurements. Analyzing from various perspectives, the researchers yield different classifications. In identifying the key factors affecting the performance of JVs, it is also proposed by some scholars that the factors should be categorized in terms of the stages of JV's life cycle, which is in sequence divided into formation/start-up stage, operation stage and termination stage. In terms of selecting good partners at the inception stage, Luo (1998) provided 3 categories of factors:

- (1) operation or task related factors (strategic fit), including marketing competences, industrial experience, strategic orientation and so on;
- (2) cooperation or partner related factors (organizational fit), such as organizational leadership, ownership type, human resources skills etc.;
- (3) cash related factors (financial fit) including profitability, liquidity, leverage and asset efficiency.

Gale and Luo (2004) argued that previous researches were generally concerned with the critical success factors of the whole JV life cycle rather than focusing on each single stage of the JV life cycle, resulting in the practical problems or confusions when practitioners tried to implement the strategies recommended by the researchers. And their research proposed 7 critical factors at the formation stage, denoted as:

- (1) obtaining adequate information about potential partner before negotiation;
- (2) selection of a suitable partner;
- (3) clear identification of the partner's objectives;
- (4) a long-term commitment to the partner rather than short-term profit;
- (5) clear statement of JV agreement (i.e. both parties' rights, obligations, distribution of profits and settlement of conflicts);
- (6) compatibility of partners' management culture;
- (7) The control of majority capital ownership.

However, what is limited is that they did not explore the JVs' success factors at the following stages.



According to Demirbag and Mirza (2000), the literature concerning JV formation can be categorized into 5 major theoretical areas, namely, the transaction costs approach (Williamson, 1975; Hennart 1988, 1991), the internalization approach (Buckley and Casson, 1976; Buckley 1991, 1993; Beamish and Banks, 1987), the competitive strategy approach (Porter, 1980; Lyons, 1991; Harrigan 1984, 1985), the organizational knowledge and learning approach (Hamel, 1991; Lyles, 1988), and the resource dependence approach (Pfeffer and Nowak, 1976; Pfeffer and Salancik, 1978; Anderson and Kheam, 1998). Each of these approaches makes predictions about the conditions under which joint ventures will be formed.

Based on the researches outcomes from 1980s to 2000s, Merchant (2005) systematically categorized the numerous influences into 4 groups each including a few detailed constructs. In the first group, labeled task-related factors, belong factors such as partner-venture business relatedness and type(s) of functional activity to be undertaken via JVs; The second group, labeled partner-related factors, includes factors such as firm size, previous JV experience, and type of JV partner; Factors such as equity distribution among JV partners and JV decision-making structure denote the third group of influences, labeled JV structural factors; Factors such as cultural distance, political risk and industry-specific conditions represent the fourth group of influences that can be labeled institutional factors. Comparing Merchant's and Luo's classifications, what overlaps and differs can be observed in Table (2.1).

**Table 2. 1: Comparison of Merchant’s and Luo’s Classification**

<b>No.</b>	<b>Merchant</b>	<b>Luo</b>
1	task-related factors	operation or task related factors (strategic fit)
2	partner-related factors	cooperation or partner related factors (organizational fit)
3	structural factors	cash related factors (financial fit)
4	institutional factors	-

**Source:** Merchant (2005) and Luo (1998)

In contrast to the perspectives of JV’s stage and factors’ properties or characteristics, another one in context of the JV’s interior and exterior is offered by Ozorhon et al. (2007) to classify these factors affecting JVs’ performance. According to this perspective, the influences on the JVs’ success consist of the external ones dubbed ‘host country conditions’ including political stability, macroeconomic conditions, strength of the legal system and relations with the host government; and internal ones defined as project-related factors which vary from project to project. Ozorhon et al. (2010) further supplement the prior classification by defining that external factors include:

- (1) host country conditions,
- (2) familiarity with conditions in host country, and
- (3) project-related factors.

And internal factors are comprised of:

- (1) the strategic and organizational fit;
- (2) the national culture fit;
- (3) the organizational culture fit between IJV partners;
- (4) the quality of inter-partner relations, and
- (5) structural IJV characteristics.

Evidently, neither Luo nor Gale and Luo provide(s) the success factors that are complete enough, since the influences on JV's performances at the following stages are lacked. By contrasting the factors identified by Merchant and Ozorhon et al., respectively, it is found that both researches could involve the relatively complete critical factors influencing JV's performance. In spite of the different perspectives from which the explorations are conducted, both parties' factors can nearly overlap with each other.

Overall, it is more reasonable and complete to identify the critical factors using Merchant's means rather than it is to do that using Ozorhon's, because the former one explores more details in terms of these factors' properties or characteristics. However, Merchant's outcome is not yet perfect enough as it lacks a few influences that other researches have highlighted, including the trust, inter-partner and so on.

## **2.6.2 Critical Factors**

Based on the identification of Merchant, the critical sources of factors influencing construction JVs in Malaysia are conceptualized into 4 dimensions, and denoted as follows. Later, a total of 28 factors are proposed, with the details in the questionnaire (Appendix A).

### **2.6.2.1 Institutional Factors**

#### **1) Political Condition**

From a political point of view, the country's inconsistency in policies, changes in laws and regulations, instability in government (such as weakening of the State, instability of political institutions, etc.) all have significant effects on the operation of JVs (Li et al., 1999; Meschi and Riccio, 2008). The political risk is perceived to be the likelihood of unfavourable changes in the governmental regime of a country or in the policies issued by this regime, and other unexpected things such as corruption, strikes, unrest, terrorism, riots and even wars (Slangen and Tulder, 2009). The higher this likelihood is, the higher the propensity of MNCs to enter through JVs rather than through wholly owned subsidiaries (Agarwal and Ramaswami, 1992).

#### **2) Macroeconomic Condition**

Macroeconomic condition is also critical to the performance of JVs. In general, the uncertainties over the economic condition (economic fluctuation, inflation or deflation, foreign exchange rates and so on) in the host country adversely affect the