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PROBLEMS OF OVERSEAS VENTURES FOR SINGAPORE CONSTRUCTION SMEs

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**SCHOOL OF CIVIL & ENVIRONMENTAL ENGINEERING
NANYANG TECHNOLOGICAL UNIVERSITY
2006**

PROBLEMS OF OVERSEAS VENTURES FOR SINGAPORE CONSTRUCTION SMEs

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in fulfillment of the requirement for the degree of
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TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
ABSTRACT	vi
LIST OF TABLES	viii
LIST OF FIGURES	x
 CHAPTER 1 INTRODUCTION	
1.1 Background.....	1
1.2 Research Objectives	3
1.3 Delimitation of Scope.....	4
1.4 Outline of the Research Report.....	4
 CHAPTER 2 LITERATURE REVIEW	
2.1 Introduction.....	6
2.2 Overview of Potential Overseas Construction Markets.....	6
2.3 Overview of International Construction.....	11
2.4 Internationalization of Singapore Construction Firms.....	13
2.5 Challenges for Singapore Companies in Overseas Markets.....	17
2.6 Critical Success Factors.....	23
2.7 Chapter Summary.....	26
 CHAPTER 3 RESEARCH METHODOLOGY	
3.1 Introduction.....	27
3.2 Methodology for Case-Study Interviews.....	27

3.2.1	Justification of the Number of Cases Presented.....	30
3.3	Methodology for Survey Questionnaire.....	31
3.4	Justification of Methodologies.....	31
3.5	Method of Analysis.....	32

CHAPTER 4 INTERVIEW RESULTS AND DISCUSSION

4.1	Introduction.....	33
4.2	Details of Case-Study Companies.....	33
4.3	Analysis of Research Issues.....	37
4.3.1	Major Problems in Overseas Ventures.....	38
4.3.2	Role of Government in Construction Export.....	46
4.3.3	Critical Success Factors.....	48
4.4	Chapter Summary.....	59

CHAPTER 5 CONCLUSIONS

5.1	Introduction.....	61
5.2	Conclusions about the Research Issues.....	61
5.2.1	Conclusion about Problems of Construction SMEs in Overseas Ventures.....	61
5.2.2	Conclusion about the Critical Success Model.....	63
5.3	Limitation.....	67
5.4	Recommendation for Future Research.....	69

CHAPTER 6 PROPOSED SOLUTIONS TO IMPROVE CONSTRUCTION EXPORT CONDITION

6.1	Introduction.....	71
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6.2	Proposed Solutions.....	71
	REFERENCES.....	77
	APPENDIX A	A1
	APPENDIX B.....	B1
	APPENDIX C.....	C1

ABSTRACT

Owing to its small domestic market and lukewarm construction demand, Singapore contractors are increasingly forced to seek their opportunity for growth and revenue in overseas markets. These push factors are further complemented with the strong pull factors in the regions where most of the developing countries are achieving strong growth and offering attractive investment schemes for foreign investments. However, not many Singapore contractors, especially the construction SMEs, were successful in overseas construction. Very little attention was focused on their problems in construction export and the reasons for their failures. As a result, this research was initiated to fill the literature gap.

The main objective of this research is to identify the problems of Singapore contractors in overseas ventures and with hindsight formulate the essential framework to assist Singapore contractors to succeed overseas. In order to gain the in-depth understanding of Singapore contractors' performance overseas, both the case-study approach and survey questionnaire were adopted. The major problems and critical success factors were successfully determined from qualitative analysis. However, effort to complement the qualitative findings through the quantitative analysis was abandoned owing, to the low response rate received from the survey questionnaires.

The result of qualitative analysis determined three major problems in the entry stage and one major problem in the operational stage. Out of these four problems, the most critical problem which impeded the respondents' firms from successfully exporting construction is their smallness in size and limited resources. A preliminary research model was first developed based on the findings from the case interviews. A final model incorporating the critical success factors across the three different stages in overseas construction ventures and the strategy for growth was formulated after triangulating the research findings with the experiences of SMEs from other industries.

Due to some limitation of this study, this report recommended several pertinent topics which could further deepen the research on the study of Singapore construction export in the future.

Last but not least, this study proposed six solutions to improve construction export condition in which the government is deemed to play a vital role in the success of their implementation.

LIST OF TABLES

Table	Caption	Page
Table 2.1	Changes in Vietnam.....	10
Table 2.2	Opportunities in Vietnam.....	10
Table 4.1	Characteristics of Companies A to H.....	34
Table 4.2a	Extent of Overseas Presence for Companies A to H.....	35
Table 4.2b	Extent of Overseas Presence for Companies A to H.....	35
Table 4.2c	Extent of Overseas Presence for Companies A to H.....	36
Table 4.3	Classification of Companies A to H.....	36
Table 4.4	Strategy Adopted for the Maiden Project Overseas.....	37
Table 4.5	The Four Most Critical Problems for Singapore Contractors in Overseas Ventures.....	39
Table 4.6	Sub-factors of Problem of Smallness in Size.....	40
Table 4.7	Measures for Difficulty in Handling External Stakeholders..	41
Table 4.8	Government Incentives for Construction Export by Other Countries.....	43
Table 4.9	Perception of Respondents on Role of Government in Construction Industry	47

Table 4.10	Critical Success Factors for Overseas Construction.....	49
Table 4.11	Examples of Diversified Operation of the Companies Interviewed.....	55
Table 4.12	Summary of Critical Success Factors.....	59
Table 5.1	Major Problems in the Different Stages.....	61
Table 6.1	Impact of TLCs’/GLCs’ Assistance to Singapore Construction SMEs in Overseas Ventures.....	73

LIST OF FIGURES

Figure	Caption	Page
Figure 1.1	Domestic Contracts Awarded 1991-2004.....	1
Figure 2.1	International Construction Market Share by Contractors' Nationality (in US\$ bil.).....	12
Figure 2.2	Regional Shares by Contractors' Nationality in Revenue....	13
Figure 2.3	Value of Construction Exports by Singapore Contractors 1984-2004.....	14
Figure 2.4	Overseas Construction Exports in 2004 by Region	15
Figure 2.5	Number of Exporting Firms and Markets Accessed 1986-2004.....	15
Figure 2.6	Overseas Construction Exports in 2004 by Sector	16
Figure 2.7	The External and Internal Levels of Challenges in a Construction Joint Venture.....	18
Figure 2.8	The Interaction between Internal Challenges, External Challenges and JV Performance.....	19
Figure 2.9	Critical Success Factors from 40 Successful Singapore Companies in China.....	24
Figure 2.10	Critical Success Factors from 14 Temasek-Linked Companies in China.....	25
Figure 3.1	Internal and External Stakeholders of JV or Partnering.....	28
Figure 3.2	Process of Identifying Major Problems and Success Factors for Singapore Contractors in Overseas Ventures....	29
Figure 4.1	Preliminary Model of Critical Success Factors for Singapore Construction SMEs in Overseas Construction....	60
Figure 5.1	Comparison of Success Factors and Strategy for Overseas Ventures between General SMEs and Construction SMEs from Singapore.....	64
Figure 5.2	Final Critical Success Model for This Research (items in <i>italics</i> are <i>additions</i> to the initial model).....	66
Figure 6.1	Assistance by TLCs/GLCs for Singapore Contractors in Overseas Ventures.....	72

CHAPTER 1 INTRODUCTION

1.1 Background

Since the 1997 Asian Economic Crisis, Singapore construction industry not only has not fully recovered but continued to record negative growth. Domestic contracts awarded for both private and public sectors have fallen sharply from S\$24.4 billion in 1997 to S\$10 billion in 2004 (figure 1.1). According to the latest data released by the Building and Construction Authority (BCA), the outlook for construction demand in 2005 remained lukewarm and is likely to be between S\$10 billion and S\$11 billion.

Figure 1.1 Domestic Contracts Awarded 1991-2004

(Source: BCA 2004)

On the contrary, Singapore construction companies secured relatively more jobs in overseas markets. Total construction export value increases more than eight-fold from S\$0.3 billion in 2000 to S\$2.5 billion in 2004 (BCA 2005a). However, most of the successful Singapore companies in overseas ventures are Temasek-Linked companies (TLCs). (TLCs are the companies under Temasek Holdings; Temasek

Holdings is the investment arm of the Singapore government which is managing a diversified S\$129 billion (US\$80 billion) portfolio of investments principally in Asia and the Organization for Economic Co-operation and Development (OECD) economies.) Although the construction SMEs represented over 90% of the whole Singapore construction industry, these SMEs contributed very little to the success in the construction export. The number of exporting firms only increases slightly from 51 in 2003 to 53 in 2004 (BCA 2005a). These figures explicitly show that only a small percentage of Singapore contractors are doing well overseas, whereas a substantial portion of these firms, particularly the SMEs, are having difficulty venturing abroad and establishing themselves in overseas markets.

This situation is alarming as researchers have concluded that internationalization is the strategy for company survival and growth (El-Higzi 2001; Usman and Rashid 2002; Ling et al. 2005). Furthermore, it is acknowledged that the domestic construction market cannot support the growth of the existing number of firms (Economic Committee 1986).

While Singapore construction companies are being increasingly urged to internationalize their activities, they are said to be lacking an export culture. This is particularly true when decision makers in a company decide to internationalize their products or services, they are faced with a number of market regions and target countries to choose from (Ostler 1998). They are deterred further by the resources commitment and investment risks inherent in such international ventures. However, their efforts in improving the industry's performance led to the realization that they need to internationalize for it to remain viable (Construction 21 1999).

Although many studies (Molenaar and Songer 1998; Konchar and Sanvido 1998; Chan et al. 2001; Ling et al. 2004) have been conducted on the project success factors, they are primarily focused on indigenous firms working in their home countries. These studies did not investigate the factors that affect the success of projects undertaken by construction firms outside their home countries. Little academic effort has been expended in studying their problems in construction

export and identifying reasons for their failure. This vicious cycle was manifested in many companies repeating their mistakes overseas, resulting in a poor learning curve for the industry as a whole.

Hence, this research project is initiated to investigate the problems and challenges that impeded Singapore contractors from successfully exporting their construction services. It is intended that through this practitioner-oriented research study, the major problems and challenges for Singapore contractors in overseas ventures can be captured and reflected to the relevant stakeholders including the authority. Thus the results and findings are expected to assist Singapore construction SMEs to successfully develop their overseas ventures in the future.

1.2 Research Objectives

Venturing overseas is not new to Singapore construction firms. Several companies have been active abroad for some decades. For instance, the L&M Group used to earn 50% of its turnover from overseas. Econ International used to be top local contractor in securing overseas contracts in the 90s. However, not many of these companies that have successfully established their early presence overseas are able to sustain in the long term. Some of them have actually been downsized or divested. Neither their pitfalls nor success factors in overseas ventures were captured in theory and practice. Mistakes keep recurring and learning experiences remain confidential and not shared industry-wide. Hence, this research aims to address the research problem, “*Problems of Overseas Ventures for Singapore Construction SMEs*” to fill the literature gap and with the following objectives:

- Review Singapore contractors’ performance in overseas ventures
- Identify the major problems of Singapore contractors in exporting construction
- Propose solutions pertaining to the major problems identified
- Identify critical success factors for successful ventures overseas
- Formulate a strategic model to highlight the essential elements for successful construction export

1.3 Delimitation of Scope

The scope of this research is delimited into *five* aspects. Firstly, the focus of this research is targeted only on Singapore contractors instead of developers, consultants or architects. Singapore contractors in this context cover the wide range of market segments such as building, civil engineering, mechanical and electrical engineering and environmental engineering.

Secondly, this research excludes the related financial measures of interview companies' overseas performance. Thirdly, the data collection effort is mainly focused on the major problems of Singapore contractors in their overseas ventures. Fourthly, this study captures the interviewees' general perspective on their problems in overseas ventures instead of a particular country. Further research is required to identify specific problems in specific countries. Lastly, this report aims to formulate a critical success model for construction export only.

1.4 Outline of the Research Report

This report consists of six chapters as follows:

Chapter 1 presents the background of the research. The research problem is defined and its objectives are stated. The scope of this research study is delimited into five aspects.

Chapter 2 is the literature review that provides an overview of the potential opportunities in overseas construction market and international construction, followed by the extent of internationalization of Singapore construction firms. The challenges and critical success factors for Singapore-based companies in overseas are accentuated. The theoretical frameworks incorporating the critical success factors are also developed from extant literature.

Chapter 3 describes the research methodologies adopted in this study which include case-study approach and survey questionnaire. The justification of the methodologies and the method of analysis are presented.

Chapter 4 presents the interview findings which include strategy for the firms' maiden overseas projects, problems for overseas ventures, role of government in construction export, and the critical success factors. Quotations from case interviewees are included to emphasize the findings. Also, an empirical model of critical success factors is developed based on the findings and analysis.

Chapter 5 concludes the research issues, which cover the problems of Singapore contractors overseas and the critical success model. Conclusions are also made on the final model for critical success factors from the comparison of both theoretical and empirical models. Limitations of the research are recognized and recommendations for future research are proposed.

To round up this research, *Chapter 6* presents six proposed solutions in which the government plays a key role in the implementation to improve construction export condition.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter is an overview of the development of Singapore contractors in overseas markets from the existing literature. First and foremost, the business opportunity for overseas construction in some selected markets would be highlighted, followed by the overview of the Singapore contractors' overseas performance. Subsequently, the challenges and success factors for Singapore contractors in overseas ventures would be elucidated. Eventually, a proposed model would be formulated for subsequent comparison with the findings from case studies conducted in this research.

2.2 Overview of Potential Overseas Construction Markets

In tandem with the strong economic recovery in the Southeast Asian countries and the booming of China and India, there appear strong pulling forces to attract foreign investors into this region. This market sentiment is further enhanced by the increasing number of free trade agreements and bilateral trades initiated between Singapore and some developed as well as developing countries. Undeniably, such developments enlarge the opportunity windows for Singapore businesses and bolster the confidence for Singapore investors. The following section would highlight some of the potential markets where Singapore construction firms could venture into. These markets include the giant economies of China and India, the new emerging market in the Middle East, the untapped and undeveloped market in Vietnam and the neighboring markets of Malaysia and Thailand.

China

The Chinese construction industry is presently the 3rd largest in the world, after the US and Japan, with a total construction output value of RMB 1.3 trillion in 2000. The total construction output is envisaged to increase to RMB 5.8 trillion by 2015, overtaking the US construction market to become the world's No. 1 (IE Singapore 2002). The building construction sector is the largest segment in China that offers

ample business opportunities. IE Singapore (2002) highlighted four key drivers that spur the Chinese construction industry. Firstly, the Chinese government initiated housing reform in 1998 to provide affordable dwellings for the mass population. Secondly, the surge in interest by foreign property investors and the increasingly affluent middle-income Chinese families had resulted in a strong demand for private housing. Thirdly, there is a growing demand for office and industrial buildings from large Chinese enterprises and multinational corporations (MNCs). Fourthly, China's Olympics 2008 presents a vast opportunity for massive construction and engineering works. In addition, the development of the Western region and the revitalization of the industrial heartland in the Northeast also present abundant opportunities for Singapore construction firms to venture into.

India

In contrast to China, India has a developing infrastructure and a highly diversified industrial base, with a pool of scientific and engineering personnel which is renowned as the third largest in the world. Over the past few years, India has undergone robust and rapid economic growth. Furthermore, the country has the largest English-speaking population in Asia, which eliminates any problem of communication for Singapore construction firms.

With the Comprehensive Economic Cooperation Agreement (CECA) between Singapore and India nearing the concluding stage, it would invariably offer investors of both sides abundant opportunities and incentives to cooperate and collaborate in a wide spectrum of industry (The Business Times 16-17 April 2005).

The Middle East

The Middle East is another vast market that offers many golden opportunities for Singapore companies in construction and real estate development. An IE Singapore-led business delegation which comprised 16 senior executives from the construction and real estate sector accompanying Senior Minister Goh Chok Tong to explore opportunities in Qatar and Kuwait was reported to be optimistic and enthusiastic about the prospect there (The Business Times 14 April 2005). Their Middle East

counterparts were found to be genuinely interested to work with Singaporean companies. Some of them have even planned to visit Singapore to meet their counterparts to explore business collaborations.

Managing director of Premas International for Middle East operations said that even as Western companies had already expanded into the region, Singapore companies could offer the same level of expertise but at reduced prices. He added that while the Middle East had a “fairly difficult culture”, opportunities there were “phenomenal” (The Business Times 14 April 2005).

As reported in The Business Times (12 April 2005), the Singapore-Kuwait free trade agreement (FTA) talks progress well. Senior leaders from both countries agreed that there was tremendous potential for economic cooperation between their respective private sectors in real estate, construction and energy. Since Kuwait mainly imports civil engineering equipment and iron pipes and fittings from Singapore, Singapore construction suppliers are set to benefit from the closer tie. Once the FTA is inked, Singapore construction firms would have lesser barriers and more preferential benefits for their presence in Kuwait.

Dubai is another country filled with golden opportunities. As reported in The Business Times (14 April 2005), the Ascott Group bags its third management contract in Dubai. Ascott is going to manage its third serviced residence - The Greens, making it the largest “international brand operator” in the Gulf region. According to its group managing director and chief executive officer, there are three million expatriates living in Dubai now, which include foreigners from the very lowly skilled to the very highly skilled. He noted that most of them have had to live in hotels because of the tremendous shortage of accommodation there. The average occupancy rate for medium term accommodation is reported to be over 80%, which is very attractive indeed. Other successful deals in Dubai include a US \$100 million twin office tower project for CPG Consultancy and Singapore architect Timothy Seow (The Business Times 12 April 2005) and Fraser Serviced Residence’s likely

first project there (The Business Times 14 April 2005). Obviously, Dubai offers an attractive marketplace for Singapore construction firms to expand their business.

Southeast Asia

With the ties between Singapore and Malaysia becoming warmer and closer and the strong residential property sector in Malaysia, Singapore developers were lured across the Causeway (The Business Times 13 April 2005). Malaysia is also a familiar ground for Singapore firms to manage their businesses and provide supports. The following are some examples that showcase Singapore construction firms' progressively expanded presence in Malaysia: Katana Developments, a new company formed by Oriental Holdings, is making its maiden foray into Kuala Lumpur with a luxury development near Kuala Lumpur City Centre (KLCC); UOL is developing two 33-storey blocks with up to 200 luxury serviced apartments near KLCC; Lum Chang Holdings partnered with GIC Real Estate for its latest project - a mixed development which includes semi-detached houses and bungalows. Executive Director of Knight Frank specifically mentioned that one of the practical reasons for Singapore investors' interest in Malaysia high-end property development is the high yields which can double that of Singapore properties'.

According to the managing director of Knight Frank, Thailand, there is a surge in demand for rental condominium units, especially those near to foreign embassies, entertainments venues, international schools and the BTS skytrain system. The demand was created predominantly by expatriates in Thailand on employment contracts of two to four years, whose remuneration package includes the cost of accommodation. The number of expatriates there is increasing steadily, with 22% more work permits issued in 2003 than in 2002 (The Business Times 12 April 2005). Hence, not only the residential sector in Bangkok is a potential market for Singapore construction firms, but also its auxiliary facilities and amenities such as MRT subway transit lines, schools, shopping complex and etc.

Vietnam is emerging as the next developing country that offers vast opportunities for Singapore construction small-and-medium enterprises (SMEs), besides the two

giants of China and India. Vietnam has rich natural resources as well as a young, skilled and low-cost labor force. HSBC has conducted a review on the business opportunity in Vietnam for Singapore SMEs (The Business Times 19 April 2005). Some of the changes and opportunities there for Singapore SMEs from the review are presented in table 2.1 and table 2.2 respectively.

Table 2.1 Changes in Vietnam

Issue	Changes
Enacted Enterprise law in 2000	Accepts 100% foreign-owned enterprises
Decentralized administration processes	License applications and company registration approval can be done at provincial level
Target to enter WTO by year of 2005 or 2006	Accelerates its reform program and integration with global economy and international rules

Table 2.2 Opportunities in Vietnam

Fact	Opportunity
No clear market leader for many sectors	Potential opportunity for Singapore companies to assume the leader role
More than 90% of the companies in Vietnam are SMEs	While size is not a disadvantage, Singapore SMEs are likely to compete effectively and outsmart Vietnam SMEs with their experiences and strong management skills
Vietnam is still in its early stage of reform and development	Wide range of opportunities for the construction industry, which includes infrastructure projects like transportation and energy, property development such as local housing and townships and related environmental engineering

Once Vietnam successfully enters into the WTO, there would be a second wave of *Doi Moi* (name for economic reform) with greater transparency, removal of double standards, fair competition and a more efficient judicial system. Indisputably, opportunity windows will be enlarged and more industry sectors will be open for foreign involvement.

In short, opportunities abound for Singapore contractors to export their services. These opportunities are further complemented by the increasing number of free-

trade agreements signed between Singapore and developing countries in those regions. Hence, there is no reason why Singapore construction SMEs are not attracted to overseas ventures. The government authorities, including IE Singapore and BCA, have made conscientious efforts to help Singapore firms internationalize.

2.3 Overview of International Construction

Internationalization is the process of leveraging domestic competencies into foreign markets, with the aim of transferring competitive advantages based on factors like superior technology, services and products. Internationalization can also be viewed as a process of contracting firms leaving their home markets in search of opportunities abroad (Hendry 1996; Usman and Rashid 2002).

There are many different reasons for companies to internationalize. However, their long term objectives are survival and growth (El-Higzi 2001). Companies which venture overseas are able to offset the cyclical fluctuations in their domestic market demand, diversifying their market portfolio, product, or services and competition position. International constructions are increasingly popular and develop rapidly. Figure 2.1 shows the main contracting nations and their international market share.

According to ENR(1997), international construction market, in general, can be divided into six regions, namely, North America, South America, Europe, Africa, Middle East and Asia/Australia. Since 90s, American, European and Japanese contractors are actively involved in the international construction activities. From figure 2.1, it is shown that European contractors occupied almost 50% of the international construction market share, with the triple nations France, Germany and British constituting the major part. On the other hand, Japanese contractors which represent the biggest contracting nation, share the other half of the pie with American, Korean and Chinese contractors.

**Figure 2.1 International Construction Market Share by Contractors'
Nationality (in US\$ bil.) (Source: ENR 1997)**

With regards to their international revenue generated in the six specified regions, figure 2.2 depicts that European contractors are the strongest contracting players in most of the regions except for Asia/Australia. They have generated a substantial amount of revenue from their international construction activities outside their home countries. Americans contractors, on the other hand, have strong presence in South America and Middle East. In Asia/Australia, Japanese contractors occupied the largest share. However, their Korean counterparts have only significant shares in Africa and Asia/Australia. The Chinese contractors seem to be active in Africa, Middle East and Asia/Australia. The shares of other contracting nations are not significant in any of the regions.

In sum, European, American and Japanese are the three strongest nations in the international construction activities. They are not only the top contractors in their domestic markets but also internationally, thereby achieving high revenue and strong growth. Singapore contractors are not comparable to them due to inherent constraints in capability and capitalization.

Figure 2.2 Regional Shares by Contractors' Nationality in Revenue

(Source: ENR 1997)

2.4 Internationalization of Singapore Construction Firms

Singapore construction companies started their overseas ventures in the early 80s. For the past 20 years, construction exports for Singapore contractors have increased from S\$0.12 billion in 1984 to S\$2.5 billion in 2004, the highest value (figure 2.3).

As indicated, Singapore contractors clinched a whopping S\$2.5 billion worth of construction contracts overseas, more than doubled that of S\$1.2 billion in 2003 (BCA 2005a). Sembcorp Engineers and Constructors, Hyflux Ltd, United Engineers (Singapore), Jurong Engineering Ltd and Jurong International Holdings Pte Ltd were among the key players that successfully demonstrated their capability in the international market. They accounted for more than four-fifths of the total overseas contracts secured in 2004. The major markets for overseas construction projects were Southeast Asia, India, China and the Middle East (figure 2.4). In particular, exports to India in 2004 increased nearly ten-fold from 2003, accounting for nearly 30% of the total construction export value. Exports to China also surged by more

than 80% compared to 2003, accounting for 20% of the total construction export value in 2004.

Figure 2.3 Value of Construction Exports by Singapore Contractors 1984-2004
(Source: BCA 2004)

Also, the number of exporting firms and markets accessed has increased, as shown in figure 2.5. Five new countries – Jordan, Denmark, Mongolia, Sudan and Venezuela were added in to the list of export destination in 2004. Industrial and civil engineering projects were the two major project types undertaken by Singapore contractors, which constitute 45% and 24% respectively in the total overseas contracts awarded in 2004 (figure 2.6).

In view of the significant achievement made by the successful Singapore-based companies overseas, many fellow Singapore firms earnestly seek to find out their recipe for success. This is especially true for Singapore SMEs who have limited resources to venture overseas.

Figure 2.4 Overseas Construction Exports in 2004 by Region
(Source: BCA 2004)

Overseas Construction Exports in 2004 by Region

Figure 2.5 Number of Exporting Firms and Markets Accessed 1986-2004
(Source: BCA 2004)

Number of Exporting Firms and Markets Accessed 1986-2004

Figure 2.6 Overseas Construction Exports in 2004 by Sector
(Source: BCA 2004)

Arising from this backdrop, IE Singapore has joined hand with those successful companies to publish a series of successful stories of Singapore-based companies in overseas ventures. Examples include “The 14 Success Stories on Temasek-Linked Companies in China” and “The 40 Success Stories of Singapore Enterprises in China”, which offer a deep insight into how Singapore companies prospered in the complex and dynamic environment of China. Similarly, “Venture India” is another IE Singapore’s literature to showcase Singapore companies who have done well in India and to share the lessons they have learnt.

Of all the abovementioned successful Singapore companies, however, few of them are construction-related SMEs, and even fewer are contractors. Nonetheless, their overseas experiences, as Singapore companies, would provide valuable advice and insight into managing overseas ventures. The following section would further illustrate the findings extracted from the existing literature.

2.5 Challenges for Singapore Companies in Overseas Markets

Generally, it is unlikely to start a new venture without problems. It is even a norm that a new venture is fraught with challenges and obstacles when it begins (Fisher and Ranasinghe 2001; Wang et al. 2004; Ramayah et al. 2004). It has been observed that most firms enter into foreign markets via the joint venture (JV) approach (El-Gamal 1993; Strassmann and Wells 1988; Fisher and Ranasinghe 2001), and Singapore firms, including the contractors, are no exception. The challenges for Singapore-foreign construction joint ventures in overseas markets can be divided into two distinct levels, namely the external and internal, as shown in figure 2.7. The external level refers to challenges outside the JV and is usually related to the interaction between the JV and the external stakeholders such as government, local community, suppliers, consultants, clients and etc. The internal level, on the other hand, refers to challenges arising from the stakeholders within the JV, namely the Singapore venturing party, partner(s) and the JV employees.

The internal challenges were viewed as the most critical factors that have either positive or negative consequences on the external challenges and performance of the JV, as depicted in figure 2.8. Therefore leadership efforts from both the partners are central to the management the tri-partite relationship within the JV (William 1982; Sing 1994). The results of this internal interaction could either be constructive (positive sign) or destructive (negative sign) to the JV's overall performance. Hence, the integrity and attributes of the partners are especially crucial, necessitating due attention and proper scrutiny (Martinsons and Tseng 1995; IE Singapore et al. 2003; IE Singapore 2004; Ling et al. 2006).

Figure 2.7 The External and Internal Levels of Challenges in a Construction Joint Venture

Having found a complementary local partner, the Singapore contractor could tap on the former's local experiences and established networks to resolve, if not all, the challenges that arise from the external level such as bureaucracy, rules and procedure for foreign investment, cultural differences, sourcing and distribution channels, and networking etc (Ramayah et al. 2004). Such a partnership fulfills the strategic objective of creating an inter-dependent relationship in which both parties enjoy mutual benefits (Buchel et al. 1998; Lim and Liu 2001). The local partner benefits from the technology and know-how transfer and international networks of the Singapore contractor while the latter benefits from the experiences, local networks and customer base of the former. The JV employees also play an important role as they are at the frontline to deal with the external stakeholders. Should any party fail to fulfill the respective designated obligation, the JV is unlikely to succeed. Hence, the internal challenges have to be given due care to bring about a harmonious relationship among the three parties.

Figure 2.8 The Interaction between Internal Challenges, External Challenges and JV Performance

Common Pitfalls

Having reviewed the relationships among internal, external challenges and JV's performance, the following section presents findings based on the existing literature on the most common pitfalls at the internal level of JV. For the venturing party, in this case the Singapore contractors, the most common pitfalls include:

- *Overconfidence* (Lambe and Tan 2003): They usually think that they can do equally well in the new market without engaging professional consultants/advisors.
- *Lack of preparation* (including market research) (Shen et al. 2001; Lambe and Tan 2003; Gunhan and Ardit 2005): They have a mindset of "going in first, details to be figured out later" which becomes the main cause of conflict and failure later.
- *Dilemma of posting staff overseas* (William 1982; Ling et al. 2006): They are in a dilemma of whether to post the best staff overseas or retain them for domestic operation.
- *No clear commitment* (Lambe and Tan 2003): They set up representative offices overseas without seconding competent and right staff to source/market for business opportunity.
- *No clear strategy* (Melvin 1982; Lambe and Tan 2003): They are not sure of which business model to pursue.

- *Opportunistic behavior* (Pereira 2003): They are looking for quick return rather than long term investment/development.
- *Too naïve* (Lambe and Tan 2003; Ling et al. 2006): They think traditional construction services (without value added) can survive in the new market.
- *Lack of understanding of business partner* (Williams 1982, Ling et al. 2006): They think they should secure business opportunity first, relegating the importance of relationship building and understanding of partner to some future effort.
- *Lack of flexibility* (Lambe and Tan 2003): They gauged the local performance based on Singapore standard and think that the Singapore management system (that worked well in Singapore) can work equally well there.

Potential Challenges

Having considered the common pitfalls of the Singapore contractors, the potential challenges arising from working with the local partner include:

- *Different mindset* (Martinsons and Tseng 1995; Chan 2003; IE Singapore 2004; Pereira 2003; Ling et al. 2006): They are used to their own ways of working, which may differ from Singapore counterparts
- *Resistance to change* (Sing 1994): They are used to old ways of doing things, as that had proved to be no problems in the past.
- *Restraining foreign control* (Sing 1994): They may seek to hold major control in the JV.
- *Exaggerated value of contribution* (Martinsons and Tseng 1995; Pereira 2003): Their valuation of land could be inflated and can hardly be verified.
- *Inefficiency* (Sing 1994; Ling et al. 2006): For partners who are state-owned enterprises, they are required to seek higher authority for instruction and making decision.

- *Short termism* (Ling 2006): Similarly for partners who are state-owned enterprises, they usually demand immediate return such as job creation, technology transfer, profit etc.
- *Fraud* (Chan 2003; Lambe and Tan 2003): Embezzlement and bribery are likely to happen with local partners.
- *Untrustworthy partner* (Wang et al. 2004): Local partner may set up another company to compete against the JV.

Challenges in Managing JV Employees

Having reviewed the problems confronting the Singapore party and the local partner, the most common challenges arising from the JV employees, the last internal stakeholder in the JV, includes:

- *Lack of commitment* (Ling et al. 2006): Few Singaporean staffs are willing to stay in the overseas market for a longer duration to accumulate experiences.
- *Lack of competent staff* (Lambe and Tan 2003): It is hard to find Singaporean staff who have the experience and leadership to work in the overseas markets.
- *Different employment package* (Sing 1994): In overseas market, local staffs want better welfare benefits rather than purely monetary returns as compared to Singaporean staff.
- *Different expectations* (Sing 1994; Martinsons and Tseng 1995; Lambe and Tan 2003): Local staff may have different needs and objectives in pursuing their careers as compared to Singapore counterparts.
- *Nepotism* (Chan 2003; Chua et al. 2003): Friends or relatives are likely to be introduced into the JV by the local employees or partners.
- *Cultural differences* (Williams 1982; Chua et al. 2003; Chan and Tse 2003; IE Singapore 2004; Pereira 2003): Local staffs are used to different styles of management and communications from their Singaporean counterparts.
- *Different perception* (Ling et al. 2006): Local staff may have different perceptions on the quality of work done on site.

Challenges at External Level

The most common challenges pertaining to the internal level has been highlighted. Next, the prominent challenges at the external level include:

- *Lack of quality sourcing* (Martinsons and Tseng 1995; IE Singapore 2004): In certain markets like India, Singapore contractors may be unable to source for quality construction materials as their supply chain is still developing.
- *Client trustworthiness and creditworthiness* (Wang et al. 2004): This is the greatest worry for most Singapore contractors- whether they can receive their interim payments on time to continue operation.
- *Government bureaucracy* (Sing 1994; Shen et al. 2001; IE Singapore 2004; Wang et al. 2004): The red-tape, uncoordinated actions and inefficiency across different local government departments can be the main causes of project delay and escalation in operating costs.
- *Corruption and bribery* (Wang et al. 2004): This factor may affect the project progress and cost.
- *Changes of rules & regulations* (Shen et al. 2001; IE Singapore 2004; Wang et al. 2004): This is an unavoidable challenge that may have positive or negative impact on the company's plan and strategy in the market.

Regardless of which developing countries or markets, there will always be challenges and risks involved. Owing to different stage of development in these countries, foreign firms do have good opportunities to establish their presence there. However, the challenges to establish overseas presence are apparently the same across different developing countries. They are believed to be transient as the situation is envisaged to improve when the countries continue to progress. It is implicitly implied that if foreign firms can successfully establish their operation in one developing country, they should have no problem establishing presence in other developing countries.

Thus the critical success factors or the roadmap to success is most sought after, engendering special attention from academics and industrial practitioners alike. The next section would discuss the critical success factors as perceived by successful Singapore companies in China. It is believed that lessons learnt in a complex and fast changing market environment like China will be applicable to other developing countries.

2.6 Critical Success Factors

The critical success factors as discussed in this section are culled from some forty successful Singapore enterprises (IE Singapore et al. 2003) and fourteen Temasek-linked companies in China (IE Singapore and Lianhe Zaobao 2004). Most of the companies are pioneers in overseas operations and had performed well in China. Undisputedly, they are highly regarded as best candidates to share their recipes for success. For comparison purposes, the critical success factors for Singapore SMEs and Temasek-linked companies were categorized in three different phases of overseas development, as shown in figures 2.9 and 2.10 respectively.

As shown on figures 2.9 and 2.10, there is no remarkable difference between Temasek-linked companies and Singapore SMEs' perceptions as to the critical success factors in China ventures for the three different phases. For the initial stage, both groups cited the importance of having foresight from the top management to identify potential opportunities in the new market. It is the top management's vision and foresight that cause the company to capitalize on opportunities and forestall competitors. Subsequently, they must carry out market research with due diligence either by themselves or engaging professional consultants. It is very important to understand the market before investing. The cost incurred is insignificant compared to possible lucrative opportunities and returns. Furthermore, Singapore firm would rather miss the opportunity than to compromise on the preparedness before investing. Similarly, both groups agreed that they should use their core competence as the competitive advantage to differentiate themselves from others. More importantly, they would never follow trend and get involved in areas where they are not competent.

Figure 2.9 Critical Success Factors from 40 Successful Singapore Companies in China (Source: Adapted from IE Singapore 2003)

As for the entry stage, both groups valued partnering as the important criterion for success. More importantly, the Singapore venturing party must find a right partner with complementary strength. Unless they possessed different expertise and complement each other, for example, between M&E and building contractor, the problem of conflict of interest and disputes over the work scopes can be a troublesome issue. Connection, which cannot be overemphasized, is particularly important in China where bureaucracy is very much prevalent. Knowing the right person would invariably shorten the time and efforts to clear any red tape. While Singapore SMEs find culture assimilation and respect important in the entry stage, Temasek-linked companies find win-win mentality and fairness as important. The only major difference in this stage is that the Temasek-linked company has added

intangible asset of strong branding, which saves them considerable time and effort to market their organization and gain the trust from the Chinese partner.

Figure 2.10 Critical Success Factors from 14 Temasek-Linked Companies in China

(Source: Adapted from IE Singapore and Lianhe Zaobao 2004)

For the operational stage, both groups viewed trust as the most important factor in maintaining JV's progress and performance. Following next is the importance of localization, which allows the Singapore firm to save substantial costs on expatriates in the long term, with local staff managing their operations after successful technology and know-how transfers. Moreover, as venturing party to the host country, localization compels Singapore companies to be more flexible and adaptable, even when there are no hard-and-fast rules to manage overseas operation.

As for their strategy, it is observed that Temasek-linked Companies, with their large size and strong financial backing, often use merger and acquisition to speed up their

overseas presence and development. Through such strategic acquisitions, they not only increase their size but also the range of services offered to the clients. On the contrary, Singapore SMEs, with their smaller size and limited resources, have to rely on their proprietary technology and specialty to stay relevant and competitive.

Another, albeit corresponding, major finding is that under closer scrutiny, the challenges (whether internal or external) illustrated in section 2.5 can be addressed appropriately by both the critical success factors (CSFs) frameworks developed in this section. When the challenges are grouped into respective stages, it is clearly shown that these challenges can be effectively mitigated should they adopt the factors depicted in the CSFs models. Hence, the frameworks developed will be used subsequently in the later chapter to compare if they are relevant to the research findings.

2.7 Chapter Summary

The push and pull factors have provided the impetus for Singapore contractors to venture overseas over the past decade. However, the number of Singapore construction companies which ventured overseas only increased slightly. This implicitly shows that there is still a substantial number of Singapore construction firms having difficulty or have yet to venture abroad. It was found that the challenges for a joint venture overseas can be discussed at two major levels: external and internal.

The critical success factors for overseas ventures, based on the experiences of Singapore SMEs and Temasek-linked Companies, were reviewed and structured into three phases of overseas development for comparison purposes. Their similarities and differences were highlighted.

Since this research study is focused on construction SMEs, which are predominantly private sector entities, the model derived from the forty successful Singapore SMEs' experiences would be adopted. Such a model will be used to compare with the findings gathered from the case studies at the later stage.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

Most of the existing literature adopted survey questionnaire as the methodology to collect data for problems of overseas construction ventures (Yang and Zhang 1998; Ling 2004; Chua et al. 2003). This approach may provide a good comparison in terms of statistical analysis but findings obtained may not truly reflect the actual situation. Instead of allowing participants to answer freely, survey questionnaire restricted them to certain answers. In order to obtain the real-life experiences and information of the Singapore contractors in their overseas ventures, this research chooses the case-study approach with semi-structured interviews. This allows the researcher to get first hand information about the major challenges in construction export. Indisputably, this approach provides more insightful information about the problems identified. To complement the findings obtained from the case-study interviews, survey questionnaire is planned to be conducted subsequently.

3.2 Methodology for Case-Study Interviews

Before conducting any interviews, the interview questionnaire has to be first completed. First and foremost, the raw data from existing literature with regards to the problems and success factors of joint ventures in developing countries would be captured and reviewed. Subsequently, common findings are recorded for questionnaires formulation. The interview questions are later divided into two major parts. The first part of questions concentrates on the internal stakeholders of the partnering (i.e. JV) arrangement which emphasizes the partners' interaction and employees' relationship in the overseas venture. The second part focuses on the interaction between the JV and the external stakeholders which includes the client, consultants, suppliers, subcontractors, government and local community, as shown in figure 3.1. A copy of the interview questions can be found in Appendix A.

Figure 3.1 Internal and External Stakeholders of JV or Partnering

Having reviewed the interview questions, actual interviews would be conducted. Since the interview questions are formulated with reference to existing literature, they may or may not be relevant to the conditions of Singapore contractors. Hence, interview questions are further refined after each interview to improve its reliability. Figure 3.2 briefly depicts the whole process of data collection.

With the assistance from BCA, eight Singapore contractors were successfully interviewed. These eight companies came from different market segments in the construction industry. They ranged from purely general contractor to widely-diversified company. All the interviewees were at least of managerial level and were personally involved in their company overseas operation. Most of them were veterans of overseas ventures who could offer invaluable experiences for the purpose of this research.

Figure 3.2 Process of Identifying Major Problems and Success Factors for Singapore Contractors in Overseas Ventures
(Source: Adapted from Yang and Lee 2002)

Since the interview was scheduled to finish within an hour, instead of limiting the interviewees to answer the questions that have been prepared, interviewees were free to share their overseas experiences. This was to allow these practitioners to highlight their challenges faced in overseas ventures which might not be covered by the existing literature. However, the interview questions would serve as the main guide to seek for more opinions on the problems identified when more time is allowed.

Most of the interviewees found this topic very practical and timely and enthusiastically expressed their views. They were readily cooperative, sincere and frank in sharing their experiences. All the interviews were successfully completed within a month as scheduled. This researcher deeply appreciated the support given by all the interviewees.

3.2.1 Justification of the Number of Cases Presented

To date, there are a total of 5863 contractors registered with BCA (BCA Contractors Registry 2007). However, out of these contractors, only 53 of them have ventured overseas in 2004 (BCA 2004). In other words, less than 1% of the total number of Singapore contractors has expanded their business to overseas markets. Moreover, these 53 companies comprised both the experienced and novice contractors. In short, many of them, whether big or small firms, are lacking in export culture. Hence, this research was confronted with a tough challenge of seeking suitable participants. Many of them declined to be interviewed and cited various reasons as follow:

1. They are tied down by busy and tight schedule;
2. Some of them are new to overseas ventures and thus decline to participate;
3. Some of them are public-listed companies and thus are unwilling to disclose information which may affect their company reputation.

Despite of these difficulties, through the collaborative effort of BCA, this research managed to secure eight firms to participate in the study on the problems and success factors in their overseas ventures. They were selected because they actively sought overseas opportunities for company expansion. Statistically, these eight companies may be insignificant to represent the whole Singapore contractor population, but they are quite representative of Singapore construction exporting firms, accounting for about 15 percent.

3.3 Methodology for Survey Questionnaire

Owing to the relatively small number of companies involved in the interviews, survey questionnaire is also planned to complement the findings from the case-study approach. The survey also targets to identify the pattern of the industry responses. The structure of the survey is generally similar to the interview questions except for certain critical questions which were asked comprehensively. The target respondents remain as Singapore contractors. A copy of the survey questionnaire can be found in Appendix B. Unfortunately, the survey questionnaire was poorly received (12 responses out of 100 sent), causing it to be abandoned as the results would have been statistically insignificant.

3.4 Justification of Methodologies

This study has chosen two approaches for data collection, namely case-study approach and survey questionnaire. The case-study approach is adopted because, firstly, face to face interviews allow the researcher to obtain the most-updated first hand information. In conjunction with such opportunity, the interviewers got to know the brief history of the company, how it secured its first overseas job, problems encountered, current performance and its future plans. With such information in hand, the researcher has a better picture of the company operation and consequently, it helps the researcher to better analyze the information obtained at the later stage. Secondly, the researcher can verify the reliability of the information gathered from the interviewee's body language and facial expression, which will otherwise be impossible with other methods. Thirdly, in contrast to the questionnaire survey which is fixed and dull, interview is a lively, two-way conversation which stimulates and inspires both the interviewer and interviewee on the topic of discussion. Furthermore, the interviewer can get more pragmatic and practical answers from the interviewees, instead of limiting them to choose from what are provided from the literature. Compared to other methods, this case-study approach offers more advantages in data collection.

Survey questionnaire is planned mainly because quantitative analysis allows the researcher to identify the respondents' pattern. In addition, it also facilitates the reader in studying and understanding the report by looking at the statistical results. This is because statistical analysis could clearly presents the degree of importance of the data collected which other methods could not.

3.5 Method of Analysis

Since this is case-study approach, the data obtained from the interviews would be analyzed qualitatively. The problems and success factors for each case would first be summarized and tabulated. Subsequently, these eight cases would be cross-compared to determine the major problems and the critical success factors. The detailed presentation of the results of analysis will be covered in chapter 4. As mentioned earlier, the statistical analysis for the survey results will not be presented due to the poor response rate to the questionnaires.

CHAPTER 4 INTERVIEW RESULTS AND DISCUSSION

4.1 Introduction

The following sections will present the findings gathered from the eight case-study interviews. The companies' profiles will first be introduced, followed by their major problems overseas and the role of government in construction export. An empirical model of success factors is then developed from the interviewees' valuable experiences overseas. It is not intended in this research to pinpoint any of the participating companies' mistakes or problems. On the contrary, it serves to alert readers about the common pitfalls in overseas construction and raise their awareness about the threats and opportunities that are prevalent so as to shorten their learning curve.

4.2 Details of Case-Study Companies

To protect the confidentiality of the interviewees, this report would not disclose their names and their company identity. They would be anonymously named as Company A to Company H, as shown in table 4.1, where some of the company characteristics are given to enable readers to have a basic understanding of their profiles.

As shown in table 4.1, there are seven construction SMEs and one large contractor. SME in this context is defined in relation to the international contractors rather than based on the Singapore SME definition. They are classified in this way so that their actual size is reflected when they compete in the overseas market. Even though some of them are A1 Contractors - the highest grade qualified to tender for unlimited contract sum for projects in Singapore, they are considered as SMEs when they compete in the overseas market. The main reason is that their company's net asset worth is relatively small compared to the international standard.

Table 4.1 Characteristics of Companies A to H

Name	General Contractor	Diversified into related field	Diversified into non-related field	SME	Public-listed company	Large Contractor	Respondent's Designation
Company A	√	√		√			Director
Company B	√			√			Contracts Manager
Company C	√	√		√			Director
Company D	√	√		√	√		Director
Company E	√			√			Business Manager
Company F	√			√	√		Director
Company G	√	√	√	√	√		Deputy GM
Company H	√	√			√	√	Director
Total	8	5	1	7	4	1	

Five of them actually extended their role to go beyond purely general contractors and diversified into either related or non-related fields. Four of them are listed in Singapore Stock Exchange, with the remaining four being family business. All the interviewees' positions in this study are at least of managerial level and above. They are personally involved and responsible for their company's overseas development and operation. Additionally, these eight companies have ventured into several countries in their overseas expansion program. They ranged from Southeast Asia to East Asia and even the Middle East, as shown tables 4.2a, 4.2b and 4.2c.

From table 4.2a, it can be seen that most of the companies have established their operation in China, the world's fastest and largest developing country. India, another world's large market, is a popular destination for overseas construction by Singapore companies. Malaysia, which has the proximity advantage and similar culture as Singapore, is also a hotspot for Singapore contractors. Even though very few of the Singapore contractors have ventured into the Southeast Asia region, neighboring countries like Indonesia, Thailand and Vietnam were contemplated as potential markets in the near future for infrastructure construction (BCA 2005a). Once these countries have recovered from the economic crisis, they are poised to generate strong domestic demand and high construction volume. Their investment

environments are becoming increasingly attractive as they progressively open up their markets for foreign investments. Over the past few years, their economies have been growing steadily and achieved very strong growth. The regional market thus looks to be promising, with more free-trade agreements being signed among ASEAN countries.

Table 4.2a Extent of Overseas Presence for Companies A to H

Name	China	India	Sri Lanka	Middle East	Laos	Indonesia	Total
Company A	√	√			√		3
Company B	√						1
Company C	√		√	√			3
Company D	√						1
Company E		√	√				2
Company F	√	√					2
Company G	√	√	√			√	4
Company H	√	√		√		√	4
Total	7	5	3	2	1	2	

Table 4.2b Extent of Overseas Presence for Companies A to H

Name	Philippines	Malaysia	Myanmar	Thailand	Vietnam	Papua New Guinea	Total
Company A					√	√	2
Company B		√		√			2
Company C	√	√	√	√			4
Company D		√					1
Company E							0
Company F							0
Company G		√	√				2
Company H		√					1
Total	1	5	2	2	1	1	

Table 4.2c Extent of Overseas Presence for Companies A to H

Name	UK	Australia	Brunei	Taiwan	Hong Kong	Russia	Total
Company A							0
Company B							0
Company C	√	√	√				3
Company D							0
Company E							0
Company F							0
Company G			√	√	√		3
Company H	√					√	2
Total	2	1	2	1	1	1	

Although all the eight companies interviewed have overseas experience, their level of overseas exposure differed. Table 4.3 classifies them into either veteran or amateur companies based on their years of overseas experiences attained.

Table 4.3 Classification of Companies A to H

	Veteran Companies				Amateur Companies			
	A	C	G	H	B	D	E	F
Years of overseas experiences	15	<15*	10	16	<5	<5	<5	<5

* Ceased overseas operation since 1997

As shown in table 4.3, half of the companies are amateur companies with less than five years overseas experience whereas the veteran companies have at least ten years overseas experience. Experiences of these two groups of companies are invariably complementary and contrasting to each other, thus providing better insights to the readers. The first group of companies with fewer years of overseas exposure is likely to face more problems at the initial stage. Their inputs to the problems list are most comprehensive and vivid. Contribution from the second group of companies, which is more experienced, is equally desired and enlightening. They could highlight their major problems and more importantly, with hindsight, share their success stories after accumulating significant overseas experiences.

Detailed analyses on their problems and critical success factors will be discussed in the following section.

4.3 Analysis of Research Issues

Before going any further into investigating the contractors' challenges in overseas markets, it is important to examine their approach used for their maiden projects overseas, which are summarized in table 4.4.

Table 4.4 Strategy Adopted for the Maiden Project Overseas

	Name	Piggy Ride	ADB/World Bank Project	Partnering/ Consortium	Direct Entry	Location
Veteran companies	Company A		√			Third world country
	Company C			√		Sri Lanka
	Company G			√		Indonesia
	Company H				√	China
Amateur companies	Company B	√				Malaysia
	Company D		√	√		China
	Company E			√		Sri Lanka
	Company F	-	-	-	-	-
Total		1	2	4	1	

As indicated, most of the companies adopted the JV/partnering/consortium approach for their first overseas projects. They either partnered with their Singapore counterparts or the local construction company in the host country. Companies C and E had their first overseas project in Sri Lanka through a Singapore consortium. Adopting similar approach, Company G had its first project in Indonesia whereas Company D formed a JV with a state-owned enterprise for its first project in China. Company H was the only firm using direct bidding for its first project, which is also located in China. On the contrary, Company B tapped on its long established relationship with the clients to successfully export its first construction services to Malaysia. Company A, on the other hand, first ventured out through an ADB-funded project in a third world country. Company F is the only firm that has not

secured any overseas projects despite having established its representative offices in China and India.

It is not difficult to understand why most Singapore construction SMEs used the JV/partnering/consortium approach to venture abroad. They are encouraged to do so because based on their sole efforts, they are unlikely to succeed against foreign or even indigenous competitors. It is thus beneficial for Singapore construction SMEs to join forces and pool resources to compete effectively to outsmart their larger rivals in overseas markets.

4.3.1 Major Problems in Overseas Ventures

Regardless of which type of entry strategy adopted, none of the companies interviewed has been smooth-sailing in their overseas ventures. This includes the large contractor, Company H. All their ventures were fraught with problems and uncertainties. Table 4.5 shows the four most critical problems cited by the interviewees. The following section will discuss in details each of the problems. Due to space constraints, only those distinctive comments from interviewees (in italics) would be cited to illustrate the point of concern. Each comment is attributed to the interviewee identified with the company indicated in bracket.

Problem 1: Smallness in Size

As shown in table 4.5, all seven SMEs unanimously felt that their small size is the main disadvantage in securing jobs overseas. Some of the A1 & A2 sized construction firms mentioned that even though they are eligible to bid for most of the major projects in Singapore, they do not have such status when they compete overseas. Unlike Government-linked/Temasek-linked Companies (GLCs/TLCs), they simply do not have the financial backing and required resources to stake out for the long haul. Capital and technology are both valuable assets which can widen the opportunity window and scope of works for overseas business (Wang 2004). However, very few contractors could have these assets. Hence, they have to seek for complementary partners to combine resources and capital to create greater synergy and also to share the investment risks. *“It is impossible to succeed in overseas with unilateral efforts”* (E).

Table 4.5 The Four Most Critical Problems for Singapore Contractors in Overseas Ventures

Critical Problems	Veteran Companies				Amateur Companies				Total
	A	C	G	H	B	D	E	F	
Smallness in size (lack of resources)	√	√	√		√	√	√	√	7
Difficulty in handling external stakeholders	√		√	√		√	√	√	6
Lack of Government incentives for overseas construction	√		√	√			√	√	5
Lack of support from Singapore contractors (including TLCs/GLCs)	√	√					√	√	4
Total	4	2	3	2	1	2	4	4	

The sub-factors of the problem of small size are identified and shown in table 4.6. As indicated, all the seven SMEs are restricted by their limited net asset worth in project bidding. As an example, Company A gave a hypothetical case of “a Singapore contractor bidding for an S\$50 million project in China”, to illustrate how competitive Singapore companies are when compared to foreign players in overseas market. He noted that most Singapore construction firms, including those public-listed, have only about S\$20 million net asset worth. For an S\$50 million project in China, it would require at least 30% of contract value (which is about S\$15 million) on the outset for the purpose of advance payment and performance bond. This huge sum of money represents about 75% of the company’s net asset worth; besides, the Singapore contractor still needs a substantial amount of money to finance its projects at home, which is its core business to support any overseas expansion. It is little wonder how Singapore construction SMEs could ever afford to

take up such risky investment overseas. Obviously, limited financial resource is the crux of Singapore contractors' inability to secure jobs overseas.

Table 4.6 Sub-factors of Problem of Smallness in Size

	Veteran Companies				Amateur Companies				Total
	A	C	G	H	B	D	E	F	
Limited net asset worth	√	√	√		√	√	√	√	7
Lack of financial resources to bid					√	√	√	√	4
Difficulty to apply for financial support								√	1
Lack of competitiveness		√						√	2
Budget constraint to grow & expand	√	√	√						3
Total	2	3	2	0	2	2	2	4	

Basically, amateur companies (B, D, E and F), which are new to overseas ventures, found the lack of financial resources the key to meeting financing requirement of the project concerned. *“While we are technically competent for the job, yet we are financially incapable to undertake the project”* (F). In contrast, veteran companies (A, C, G) found their limited budget as the main constraint to grow and expand overseas. *“Business opportunity is not an issue; what bothers us is insufficient money to finance more than one overseas project at any time”* (A).

Smallness in size has also resulted in Singapore construction SMEs lacking in competitiveness and having difficulty in applying for financial credits. *“Banks are unlikely to finance construction works overseas, especially roadworks which are not mortgagable, unlike buildings which can still be liquidated”* (F).

In short, it can be deduced from table 4.6 that the main obstacles for Company F to secure its first overseas project is its limited size and resources, which has the highest score of four (bottom-row total). As for the other companies, they have similar scores with slight variation in the sub-factors.

Another key hurdle affecting Singapore contractors in overseas construction is the difficulty in handling external stakeholders, which is discussed next.

Problem 2: Difficulty in Handling External Stakeholders

With regards to the difficulty with external stakeholders, Company D is found to have encountered the most difficulties in its China venture, as indicated in table 4.7, with the highest score of eight in difficulty measures. As it was the company's first venture into China, it had no experience in handling local practices. *"Due to inefficiency and lack of transparency in central government funding, this project has been delayed for one year"* (D). In contrast, being the first timer in Sri Lanka, Company E is facing fewer problems. *"We have a supportive owner who guides us through the red-tape"* (E).

Table 4.7 Measures for Difficulty in Handling External Stakeholders

Measures	Veteran companies			Amateur Companies			Total
	A	G	H	D	E	F	
Bureaucracy	√			√			2
Corruption				√			1
Danger of working in illegal park				√			1
Unreasonable VO claim				√			1
Exaggerate contribution				√			1
Unfair competition				√			1
Old mindset		√		√			2
Unanticipated changes in rules & regulations			√	√			2
Local government/community interference			√				1
Problem of Sourcing	√				√		2
Shortage of quality local staff	√	√					2
Creditworthiness of paymaster		√	√			√	3
Potential loopholes					√		1
Lack of quality control						√	1
High risks environment						√	1
Language problem		√			√		2
Total	3	4	3	8	3	3	

Although veteran companies (A, G and H) are expected to encounter fewer environment problems, it turns out that they achieved similar scores as some of the amateur companies (E and F). This is because when the veteran companies ventured into new markets, they are not spared from the protectionist measures in the host countries. Equally true, it does not mean that they are not performing well in the

new markets. Said the director: *“Compared to China, India is developing at a slower pace and further compounded with resources problem; however, these are good problems which signify that the country is booming and generating greater demands”* (A).

Among the problems identified, creditworthiness of client (or paymaster) was considered as the most important concern (score of 3 in table 4.7). Due to the contractors’ limited financial resources, prompt payment for each progressive claim is critical to the continuation of the project. *“Even in Singapore (where there is less bureaucracy and higher transparency), subcontractors would like to know who will be their paymaster before getting involved, not to mention in overseas where risks are higher and more complicated”* (F).

Some of the other difficulties include: bureaucracy, old mindset, unanticipated changes in rules and regulations, problem of sourcing, shortage of quality staff and language problem etc.

In contrast to the six companies mentioned above, Companies B and C are not encumbered with the aforementioned challenges. *“We knew the right person for the right job and we therefore didn’t have much problems dealing with external stakeholders”* (B). Company C, on the other hand, has ceased overseas operations since 1997, thus making this problem impertinent.

Problem 3: Lack of Government Incentives for Overseas Construction

Out of the eight interviewees, five of them actually voiced out that Singapore government should emulate other countries in devising more attractive incentives for construction export promotion. As indicated in table 4.8, Malaysia exemplifies in government commitment and efforts to promote construction export. *“Malaysia is currently the largest contractor in India with US\$2 billion contract value; Sami Velu, the Minister for Public Works, is the key person in this success”* (A). *“Unlike Singapore, Malaysia has EXIM (Export-Import Bank of Malaysia) Bank, which provides short to long term financing for Malaysian exporters and investors overseas”* (H).

Furthermore, vision and incentives formulated by the Chinese and Japanese governments to groom international contractors are seeing results. *“One of the reasons to account for Japanese contractors’ success globally is the government incentive which stipulates that the more export services a Japanese contractor secured, the more domestic projects would be allocated”* (F). This win-win policy has proved to generate mutual benefits for both contractors and government. Tapping on the central government funding, Chinese contractors are increasingly developing their presence outside China. They are not only renowned for competitive pricing, the quality of their product has also improved significantly. For instance, China Construction (South Pacific) was recently given the construction excellence award by BCA for the construction of NTU Research Techno Plaza (BCA 2005b).

Table 4.8 Government Incentives for Construction Export by Other Countries

Country	Veteran Companies			Amateur Companies		Total
	A	G	H	E	F	
India: Import tax free		√				1
Malaysia: Minister’s influential power & barter trade	√		√	√	√	4
Japan: Overseas quota for domestic share	√				√	2
China: Central government providing financing	√		√			2
Total	3	1	2	1	2	

Similarly, the Indian government allows its own contractors to bring in items from overseas tax-free. The amount of values of items depends on their overseas turnover. *“Compared to what are being offered in Singapore, this incentive provides more direct impact to construction export”* (G).

Drawing from the respondents' views, few of them actually found the trade missions organized by BCA effective and useful. *"We have ventured overseas well before government starts its construction export promotion and we might have better connection than BCA"* (B).

Based on the incentives offered in table 4.8, it can be regarded as an 'unfair competition' for Singapore contractors to compete with those nationality contractors in either home or foreign markets. Armed with the supports from their own governments, foreign contractors are allowed to compete at a level playing field with Singapore contractors in Singapore. Not only is the domestic competition intensified, the profit margin was also being eroded. Apparently, Singapore contractors are facing the dual yet tough challenges of keeping their domestic market share and expanding their operations overseas.

In brief, this research found that other than trade missions and bilateral agreements, Singapore government has not formulated any effective incentives for construction export. All the companies interviewed felt the government could do more to promote construction export.

Problem 4: Lack of Support from Fellow Singapore Contractors

From the responses received, companies A, C, E and F lamented on the lack of support in collaboration from their fellow contractor counterparts. Compared to other nationalities such as Taiwanese and Hong Kongers, Singaporeans are generally self-centered and unwilling to share. The so-called "Kiasu" environment in Singapore has molded them into such negative behaviors. Although they are resulted-oriented, they are however not united, unlike the Japanese who tend to engage their own people for any related works in overseas ventures. Seldom would a Singapore developer/consultant take the initiative to hire a Singapore contractor to carry out construction works or construction management services overseas. Whenever possible, they would engage foreign contractors with the (mis)conception that foreign product/services are always better. *"The government sector is simply lacking confidence on its own compatriot's service and product quality"* (A). Another interviewee lamented *"Since consultants are usually approached by the*

client first for the conception and preliminary design, why can't the consultants announce to the public that they have such a project on hand so that other supply chain members could approach the client to offer their services?" (E). Apparently, the cooperative spirit among Singapore construction companies is severely lacking, thus necessitating a concerted effort to nurture it.

Similarly, it was discovered that Government-linked Companies (GLCs) and Temasek-linked Companies (TLCs) seldom collaborated with other Singapore contractors in either overseas or domestic projects. *"Despite our efforts to approach TLCs for joint collaboration in a BOT project in India, it was rejected because of the perceived low rate of return"* (F). From this incident, it can be inferred that the main criterion to collaborate with TLC(s) is the attractiveness of the percentage of return on investment. Unless government mandate is given for them to assist Singapore construction SMEs, collaboration between them is virtually impossible.

Summary

In brief, the problems identified for veteran (A, C, G, H) and amateur (B, D, E, F) companies are reportedly mixed. Possible reasons which could explain this result include: differences in countries ventured, timings of venture and market segments which can range from construction to engineering and from M&E to trading businesses; and different modes of project delivery etc. Each of these factors could affect companies' overseas performance significantly as problems encountered are not static and conditions vary in each circumstance. The degree of difficulty in dealing with environment and external stakeholders can be distinctly different from country to country and even between cities. However, the problem of small size is undeniably the crux for all SMEs as the main hurdle for construction export. Unlike large corporations, SMEs are encumbered by limited net asset worth which prevents them from expanding overseas at a faster pace, or tendering more than one project at one time or going for high contract value project.

Compared to other countries, the respondents found Singapore government falling short of effective government incentives in promoting construction export. On the

domestic front, Singapore contractors are facing stiff competition from foreign players who are supported by their strong home government incentives for overseas projects. Simply put, Singapore contractors are stuck in the middle of neither able to compete locally or overseas.

Last but not least, the lack in cooperative spirit among local construction counterparts compels the Singapore contractors to venture overseas by themselves. Such a “Kiasu” mentality prevails when everyone seeks for dominant control over others. This is further compounded by their lack of confidence and trust in their compatriots’ quality in services and products. It is little wonder why GLC/TLC(s) prefer to collaborate with other nationality contractors like the European or Japanese who have better brands than local companies. Indeed, such collaboration enhances GLCs/TLCs’ track records with multi-national working experiences and exposure rather than purely domestic experiences. Additionally, they have made the Singapore brand increasingly popular in the international arena. However, the collaboration opportunity for Singapore construction SMEs to internationalize should not be neglected. Proper measures and strategies have to be formulated to assist them to successfully develop their overseas presence. In the next section, the perception of respondents on the role of government in construction export will be discussed.

4.3.2 Role of Government in Construction Export

Government’s agencies such as IE Singapore, Ministry of Trade and Industry (MTI) and BCA have put in place some incentives for Singapore SMEs to internationalize as well as to equip them with the right financial management skills for internationalization. Some of these schemes are highlighted in Appendix C.

As indicated, there are three types of assistance schemes, namely loan schemes, tax incentives and human resource assistance schemes. Apparently there are quite a number of assistance schemes available for overseas ventures. However, this study found that they might not be suitable for construction export. This is because the working capital required for overseas construction project is usually large and the

financing requirements in each developing country vary. Additionally, availability of construction projects is opportunities-based and any financial assistance provided has to be flexible. Compared to other sectors like biotechnology and electronics, construction sector was being treated unfairly with less government support scheme (Ofori et al. 2001).

Additionally, table 4.9 shows that 63% of the interviewees commented that the government lacks commitment to keep construction industry sustainable. Knowing that the government would set aside a sum of money to assist Singapore companies venture into India when the free trade pact between the two countries is inked, the director responded “*I wonder if Singapore contractors are eligible for the funding*” (F).

Table 4.9 Perception of Respondents on Role of Government in Construction Industry

	Veteran Companies				Amateur Companies				Percentage of Respondents
	A	C	G	H	B	D	E	F	
Lack of commitment to keep construction industry sustainable	√		√	√			√	√	63%
Trade mission was not useful	√				√			√	38%
Unfair free market	√	√							25%
Lack of foresight to groom world class contractor	√	√							25%
Total	4	2	1	1	1	0	1	2	

It is noted that 38% of the contractors regarded the trade mission as not very useful. “*Meetings and networking with central government officials in China were not useful, compared to those with local officials who oversee the locality where the project/investment is located*” (A). 25% of respondents found the acclaimed free market mechanism in Singapore as unfair to local contractors. Another 25% respondents thought the government lacks foresight in grooming world class

contractors. *“If the government has this vision in the early days, we would not be constrained by our size now to expand overseas”* (A).

From the above discussion, it is obvious that government effort to sustain the construction industry was not enough and effective. As reported, there is a total of 16 contractors which went bust in 2004, compared to 12 in 2003 and 20 in 2002 (The Straits Times 26 March 2005). While Singapore has reached the mature/saturation stage for major developments, it is reckoned that overseas construction will be the next avenue for revenue and growth. Hence, government should review the current assistance schemes and supports available for construction export.

4.3.3 Critical Success Factors

Having discussed the major problems and role of government in construction export, the critical success factors for overseas construction are elucidated next. From the responses received, ten critical success factors for overseas construction were identified, as shown in table 4.10.

As indicated, veteran companies (with at least 10 years overseas experiences) have at least 7 critical success factors out of the 10 listed. In contrast, amateur companies (with less than 5 years overseas experiences) have less than 7 critical success factors, with the exception of Company E. There are a few reasons to explain this, but the two most prominent reasons are their supportive project owner and clear commitment from top management to develop their overseas presence. *“We know our goals and we are progressively working closer to them”* (E). Even as financial data are not available for comparing overseas performance, generally speaking, the seasoned players are deemed to possess more critical success factors as they have accumulated more experiences and exposures over a longer period. These critical factors are now discussed in detail.

Table 4.10 Critical Success Factors for Overseas Construction

Critical Success Factors	Veteran Companies				Amateur Companies				Total
	A	C	G	H	B	D	E	F	
Localization & Training/ Development	√	√	√	√	√	√	√		7
Clear Objectives and Commitment	√		√	√	√	√	√		6
Good Connection	√	√	√		√		√	√	6
Partnering (Right Partner)		√	√	√	√	√		√	6
Going beyond Contractor Role	√	√	√	√			√	√	6
Diversification	√	√	√	√		√			5
Being Selective		√	√	√		√		√	5
Government Supports	√	√	√				√	√	5
Culture Appreciation	√			√	√	√	√		5
Singapore Brand			√	√	√		√		4
Total	7	7	9	8	6	6	7	5	

Success Factor 1: Localization & Training/Development

All interviewees who have overseas projects (except Company F who is yet to secure any overseas project) considered localization and training and development as one of the essential strategies for overseas business development. This factor not only reduces the costs associated with expatriate employment, but also allows Singapore contractors to recruit and make good use of local talents to run their overseas operation. According to them, they only deployed a few Singapore top executives to oversee their overseas projects, with the remaining staff ranging from middle management to floor workers being recruited locally. Owing to their familiarity with local practices and culture, the local staff can contribute significantly to the performance of these companies overseas. In tandem with the company's in-house training program, local staff have invariably gained the necessary skills and knowledge to manage their works more effectively and efficiently. However, results of localization and training take time to build up. It is delighting to find out that every interviewee foresees the long term strategic and economic benefits accrued from the localization and training and development

program. Hence, construction SMEs should have a proper training scheme to groom new leaders to oversee operations overseas and also for future expansion. “*While we have only four Singaporean staff in China, our turnover there is US \$92 million*” (A).

Success Factor 2: Clear Objectives and Commitment

Regardless of whether they are big or small firms, the interviewees invariably agreed that they have to have clear objectives and commitment to succeed overseas. It is important for them to know “why” they are going overseas. As highlighted by Company H, Singapore contractors should carry out self-assessment before venturing overseas. They should ask themselves the following questions:

- Do they have the construction services and solutions that will serve the target market in such a way that local contractors cannot provide? It is pointless to provide similar services as the locals.
- Are they competitive enough to serve the overseas markets in comparison to local contractors?
- Do they have sufficient resources to stake out in long term?
- Can they afford to take the risks?
- Of all the alternatives available, is overseas venture the best choice for their company’s growth and revenue?

Only those with answer “Yes” for all the questions above are likely to succeed overseas. This could be easily explained as, firstly, their strength meets the needs; secondly, they have the required resources; thirdly, their risk assessment shows a clear sign of going ahead; fourthly, they know their corporate direction and strategy to be adopted. With such clear understanding of objectives and commitment, it is unlikely that Singapore construction SMEs could not succeed overseas.

Success Factor 3: Good Connection

Connection, also termed as network or “guanxi”, is an instrumental tool to facilitate any business, either domestic or more so, overseas. Some of the benefits of good connection are highlighted by the respondents and presented below.

- **High Efficiency and Cost Effectiveness**

“You just have to know that particular person to do the specified job” (B). It is more cost effective and time-saving to engage the right person/subcontractor for the job overseas, in particular for the tasks that require government’s approval. It is more imperative to know that in overseas market there are government-appointed contractors for certain specific work. Hence, it is advantageous to keep and maintain such connection with the right people.

- **Business Opportunity**

To certain extent, good connection also means business opportunity. *“Good connection and extensive networks allow us to seize opportunity in time”* (E). Though this might be perceived as hanky-panky business, it is the reality in the business world. Those capable of accessing insider information would enjoy first-mover advantage, thus having higher chances of success. Equally true are the repeat customers whom Singapore contractors have well-maintained connection and relationships with. *“Through the good connection, we enjoyed a few piggy rides with the same clients”* (B&C).

- **Opportunity for Partnering**

“Through the good relationship with our Chinese subcontractor in Singapore, we formed a partnership to bid for projects in China” (B). This is a typical example to illustrate how Singapore construction SMEs can tap on the good connection with their Chinese subcontractors to further develop their presence in China. It is a win-win partnership because, on one hand, Chinese subcontractors are familiar with local rules and regulations, bureaucracy, and possess strong local networks. On the other hand, Singapore construction SMEs could transfer their strong management skills to the Chinese partner. Their past experiences of working together afforded them an added advantage, as they have built up trust and understanding with each other. Such a partnership enables both sides to exploit any business opportunity in the host market for mutual benefits.

- **Information Sourcing**

One of the main objectives to maintain and develop a good connection is to source for information. *“Having worked with one of the biggest Indian M&E contractors in Singapore, we were able to source for practical information about the market condition, legal and tax structure and potential opportunities in India”* (G). Undeniably, good connection provides opportunity for construction SMEs to source for overseas market information, allowing them to prepare for what are to be expected in the new markets.

Success Factor 4: Partnering (Right Partner)

Owing to their small size and the unfamiliar environment overseas, partnering becomes a popular means for Singapore contractors to pursue overseas expansion. They could either form a joint venture or a consortium. The main rationale is to combine resources and share the risks. Under such circumstances, partner choice becomes important.

Investigating the causes for the problems encountered by Company D, it can be inferred that there is a lack of due diligence in finding out the state-owned partner. The joint venture was neither smooth nor successful. Though the Chinese state-owned partner claimed that he could apply for central funding for the project, the application was so complex and time-consuming that the project was delayed significantly. *“The difference between partnering with a Chinese state-owned enterprise and a private enterprise must be properly considered and treated with care”* (D).

“Even though we have a vast pool of in-house expertise and services, we would still prefer to collaborate with local companies because they have their own specialty and ways of managing which complement and improve our service further” (H). This is true because the partners provide different inspirations and sparks in their cooperation. Combining each partner’s unique strengths could eventually result in comprehensive solutions to the client.

“Since we have previous working experience with our Chinese subcontractors in Singapore, we find it easy to cooperate with them in our China venture; it saves a lot of time in trust building than to develop relationship from scratch” (B). Indeed, this kind of partnership is highly recommended because the risk is significantly reduced as the previous working experience would have ironed out mutual differences. Hence, Singapore construction SMEs should make good use of their local ties to assist them in their overseas ventures.

On the other hand, many of the construction SMEs are also looking forward to partner with Government-linked or Temasek-linked Companies in overseas ventures. The latter are perceived as the most reliable partner to explore overseas market. Tapping on the latter’s brand, size and expertise, construction SMEs not only have the chance to accumulate overseas experience, but also possibly get involved in sizeable projects.

Success Factor 5: Going beyond Contractor Role

According to Company F, most of the developing countries’ needs are no more than these two aspects: money and expertise/specialty skills. Firstly, they do not need any general contractors to do construction of building or civil engineering works. Their indigenous contractors can do equally well. Instead, they are lack of money to develop their infrastructure facilities, industrial parks, and residential housing etc. This is why their government looked aggressively for foreign investments. Secondly, they are looking for foreign investors with sophisticated technology or expertise. They want technology transfer so as to upgrade their existing skills and catch up with the world economy. Singapore construction SMEs do not possess any advantage in the two aspects, said Company F. *“While roadwork construction isn’t technology intensive, we don’t have enough money to invest in BOT projects and find it very risky to operate, manage and maintain our business overseas”*. This is understandable because roadwork project is rather politically sensitive and it might not be easy for them to negotiate for any toll fee increment if the inflation is high during the concession period. Apparently, this explains why Company F has yet to

secure any deal overseas so far. They are unable to add value to their general construction services in areas such as financing.

On the contrary, being a large contractor, Company H has strong financial muscle and possesses a variety of in-house expertise. They are capable of providing total solution for their clients from project inception till completion. Furthermore, they have established their strong brand name as they had started their overseas ventures since the late 80s. They have successfully developed their presence overseas and their future prospects look even more promising.

Being more than a general contractor, Company G extended their services to include management and maintenance of the property built. With such integrated services, not only did Company G widen their scopes of operation, they are also capable of providing total service package for their clients.

In brief, general contractors who cannot add value to their existing services would find it hard to sustain in their overseas markets. As discussed earlier, before venturing overseas, they should carry out self assessment to determine what they can offer and whether the services offered are competitive enough to sustain in the long haul (success factor 2). Specialist companies or multi-disciplinary companies, on the contrary, are envisaged to have lower entrance barrier and relative ease to secure job due to their specialty or comprehensive services.

Success Factor 6: Diversification

Five out of eight interviewees agreed that diversification has become the growth and survival strategy for Singapore contractors in overseas ventures. Pure construction service is not sustainable in overseas markets. They need to develop new services to complement their economic cycle of construction services. Some examples of the new areas of services by the five interviewees, other than construction, are shown in table 4.11.

Table 4.11 Examples of Diversified Operation of the Companies Interviewed

Company	Area of Diversification
Company A	Environmental Engineering
Company C	Property Development
Company D	Trading
Company G	Trading, Electronics, Healthcare, Facilities Management
Company H	Process Engineering

Company G provided a practical anecdote to exemplify the advantage of having diversified company portfolios. In 2003, Company G's construction, engineering and property development were seriously affected by SARS, the Iraq War and terrorism in the region. However, the company group profit level was not affected and was cushioned by increased earnings from the group's earlier investment in electronics sector via a joint venture entity. This has clearly demonstrated that diversification spreads the investment risks and could counterbalance any income deficit in other sectors.

Company D's managing director added that his trading business in China is indeed more profitable and easier to manage compared to its core business of waste and water treatment plant. *"We find it easier and less risky to do trading business than undertaking project works in China, and more importantly the prospect for trading looks very promising"* (D).

Success Factor 7: Being Selective

Of the eight interviewees, five unanimously highlighted that the issue of being cautious and conscientious in the selection of partner, project, and client is critical to their performance overseas. Partner choice has been discussed earlier and thus would not be repeated here.

- **Project Selection**

Out of the five interviewees who chose to be selective, four are public-listed companies. It can be easily understood why they have to be extra careful in project and client selection. They need to account for the shareholders and

public interest as well as the movement in share prices. *“Our board of directors required at least 22% rate of return in order to approve the investment plan”* (G). When asked by its shareholders on the fruitless results in overseas markets, Company F replied that *“Opportunity avails but at high risk which requires huge investment; owing to our size and lack of overseas experience, we have to be extra careful in project selection and more importantly we could not afford to lose”*.

Company H further added that: *“We would only participate in a project bidding which involves less than five competitors and in projects which we can value add”*. This clearly explains their strategy of competing in a small-group setting for which their chances of success are higher. Moreover, their capability to customize solutions for the clients has allowed them to command a premium in service offering.

- **Client Selection**

Trustworthiness and creditworthiness of clients are two most important aspects to consider in client selection. Preliminary work has to be carried out with due diligence to ascertain the creditworthiness of clients. *“We don’t really trust solvent guarantee especially in developing countries; instead, we demanded letter of credit (LC) from international banks to safeguard our interest in overseas operation”* (G). This is understandable because the company can be easily trapped in financial difficulty in developing countries where laws and regulations are not fully developed. Extra caution and conscientiousness are required to protect the contractor’s/investor’s interest.

Success Factor 8: Government Support

As highlighted in the earlier sections (see problem 3 & section 4.3.2), the government plays a vital role in promoting construction export. Most of the interviewees hoped that the government would formulate incentives and financial schemes that specifically target construction companies going overseas. Also, they hoped the government can give a mandate to Government-linked and Temasek-

linked Companies to assist and bring along Singapore construction SMEs in developing overseas markets. Though construction contribution to the GDP is quite low, nonetheless it assumes a disproportionate importance in the economy as it supports a large number of players ranging from materials' suppliers to civil engineering consultants and specialist contractors. Hence, government support is crucial for overseas construction.

Success Factor 9: Culture Appreciation

Five interviewees opined that Singapore contractors who wished to partner with local contractors must learn to understand and blend with the local culture. Owing to different background and value systems, Singaporean managers should not force the local people to accept the Singapore style of working. Instead, they should integrate the local culture into their company operation systems and procedures. However, they noted that it takes time to change their preconception and mindset.

For China ventures, most of the respondents found the “face” value to be very important. The Chinese do not like to be confronted in front of people. They prefer indirect ways such as going through third parties to convey the message. On the contrary, as related by Company E, people in Sri Lanka prefer to talk face to face rather than through phone or third parties. They perceived it as a kind of respect for one another. Therefore, understanding cultural differences is very important in order to prevent any unnecessary offence or conflict against the local people.

For joint ventures with local partners, Singapore contractors have to show their commitment in order to earn the local's trust. Sincerity and patience are required to manage and maintain the relationship and the joint venture. It might involve a lot of give-and-take during the venture and neither party should seek dominant control over the other. Fairness and a win-win perception should be strongly emphasized whenever possible.

In general, regardless of whichever country Singapore contractors are working, it is necessary to adapt to the local culture and work practices. There are no shortcuts to

this end. Singapore contractors should be prepared to learn to adapt, respect and work within the local constraints. Wherever possible, Singaporeans should adjust and adapt to the local environment and learn to appreciate the culture better.

Success Factor 10: Singapore Brand

As Singapore is renowned for its business integrity, efficiency and great transparency, its construction SMEs have benefited from such intangible values in project bidding. They are highly valued and regarded with great expectation on their performances. *“Vietnamese SOEs are readily available to cooperate with Singapore contractors to develop their residential estates because they believed Singapore participation can spur the selling price for residential properties there, generating higher occupancy and sales growth”* (G).

While clients overseas are more confident and comfortable working with Singapore firms, they also have high expectation on their product quality and services delivered. Apparently, the Singapore brand is an added value to Singapore contractors who in turn can capitalize on this as an advantage for project bidding. Singapore contractors should commit to deliver their best in overseas so that the goodwill of the brand can be further enhanced and sustained.

“The Singapore brand is an added advantage especially in dealing with international clients who demanded high quality product and sourcing” (E and B). This is especially crucial when Singapore contractors compete against the indigenous rivals. Given their established international network and previous experience of dealing with international clients in Singapore, the contractors should have little difficulty understanding and meeting their client’s requirements overseas.

In brief, the Singapore brand is highly recognized in developing countries. This added advantage has made the inroads to developing countries’ markets much easier. Hence, Singapore contractors should continue to uphold the dignity and integrity of the Singapore brand overseas.

Summary of Critical Success Factors

As shown in table 4.12, veteran companies, as expected, possess more critical success factors than amateur companies, with an average of 78% to 60% respectively, of the total ten factors. Though financial data is not available to correlate and compare their overseas performance, based on the score on the critical success factors, it can be implicitly inferred that Companies G and H, with score of 90% and 80% respectively, did well in overseas ventures. In actual fact, they are among the top Singapore contractors in construction export. Coincidentally, Company F, which has not secured any overseas project so far, was found to possess the lowest score of 50%. Based on the above illustrations, these ten critical success factors can be used to formulate a preliminary success factors model for Singapore construction SMEs in overseas construction. These factors are subsequently arranged into three different stages of overseas ventures, which are the initial, entry and operation phase, as shown in figure 4.1. As indicated, one of the critical success factors, that of diversification, has been classified into the strategy for growth.

Table 4.12 Summary of Critical Success Factors

	Veteran Companies				Amateur Companies			
	A	C	G	H	B	D	E	F
Critical Success Factors	7	7	9	8	6	6	7	5
Percentage	70%	70%	90%	80%	60%	60%	70%	50%
Average	78%				60%			

4.4 Chapter Summary

This chapter summarizes the findings gathered from the eight case-study interviews. Firstly, the data were used to examine the contractors' strategy for their maiden overseas projects, followed by the extent of their operation overseas. These eight contractors were later categorized into either veteran or amateur cluster for the ease of data analysis. Based on responses received, problems of Singapore construction SMEs overseas have been identified accordingly. This chapter ends with the

analysis of the contractors' critical success factors for construction export. A preliminary success factors model for Singapore construction SMEs in overseas markets is then formulated.

Figure 4.1 Preliminary Model of Critical Success Factors for Singapore Construction SMEs in Overseas Construction

CHAPTER 5 CONCLUSIONS

5.1 Introduction

This chapter provides a concluding summary of the research issues regarding the problems of overseas ventures of Singapore contractors and the critical success model arising from this study. Limitations to the research are highlighted and recommendations for future research are presented.

5.2 Conclusions about the Research Issues

The research problem of this study, “*Problems of Overseas Ventures for Singapore Construction SMEs*”, has two main research issues, namely, the major problems for construction SMEs in overseas markets and the critical success model for their overseas ventures. They are discussed next.

5.2.1 Conclusion about Problems of Construction SMEs in Overseas Ventures

The problems related to the three stages- initial, entry and operational, have been examined and summarized in table 5.1.

Table 5.1 Major Problems in the Different Stages

Major Problems Identified	Stage
1. Smallness in size (Limited financial resources)	Entry stage
2. Lack of effective government incentives for construction export	Entry stage
3. Lack of support from fellow Singapore construction firms	Entry stage
4. Difficulty in handling external stakeholders	Operational stage

As indicated, the contractors did not have major problems during the initial stage, implying that they understood their role and objective well and had the commitment before venturing out. Majority of problems were encountered during the entry stage. In the operational stage, no major problems were found with the internal stakeholders of a joint venture. This shows that Singapore contractors did not have

much problems dealing with their partner and employees in their operation overseas. However, they experienced difficulty in handling external stakeholders.

This research found that Singapore construction SMEs encountered the most problems during the entry stage. Firstly, the size constraint is the main reason that prevents them from successfully developing their ventures overseas. Their limited financial resources restrict them to few opportunities overseas. Amateur companies are unable to venture overseas whereas veteran companies are unable to sustain and expand their businesses there.

Secondly, Singapore government has yet to develop any effective incentives specifically to assist construction SMEs in construction export. Without the government's commitment to support construction export, construction SMEs could hardly compete against foreign contractors overseas, given that many foreign contractors are supported by their home government.

Thirdly, it is extremely difficult for Singapore contractors to venture overseas on their own. Team effort, in the form of joint venture or consortium, is necessary to compete in overseas markets. This study found that there is a lack of trust and commitment among Singapore contractors to collaborate for overseas ventures. Managerial knowledge on construction partnering was also lacking. Furthermore, Singapore firms lack the cooperative spirit and willingness to share.

For the operational stage, difficulty in handling external stakeholders was the major problems. This problems pertain to the bureaucracy, credit payment, resource sourcing, change in rules and regulations and etc. Most of them are beyond the control of Singapore contractors. The problem is exacerbated due to cross-cultural differences from the home environment that Singapore contractors operated.

In summary, this study found that major problems identified are mostly attributed to the unique environment Singapore contractors operated at home that was so detrimental to them when they venture overseas.

5.2.2 Conclusion about the Critical Success Model

A generic model of critical success factors for Singapore SMEs was developed in Chapter 2, based on the existing literature of 40 successful Singapore companies in China. This model incorporated the success factors spanning the initial, entry and operational stage of overseas ventures. The generic model will now be reviewed and contrasted against the preliminary model formulated from the results of analysis of Singapore construction SMEs in Chapter 4. The main objective is to derive the final model based on these two models. Their differences and similarities are compared in figure 5.1 and discussed stage-by-stage next.

Initial Stage

As indicated, general SMEs stressed on foresight, market research and focus on core competence, which were not considered as critical success factors by the respondents. It is good to have foresight to seize the opportunity, but in the case of construction SMEs, having small size and limited resources, it is pointless for them to venture into a new market where huge resources and outlays are required on the outset. Hence, foresight is not included in the final model.

Instead of adding market research, this study found that *market sensitivity and response* is more appropriate. Being sensitive to the market economy and capable to respond to opportunity timely are indeed more important at this initial stage.

Next, *focus on core competence* (in particular the company's specialty) will be added to the final model because specialty is crucial to distinguish one from another especially competing in the highly dynamic and competitive environment overseas.

Ultimately, the leaders must have the clear understanding of their venture objectives and the commitment required. Otherwise, none of success factors identified will turn out to be effective and fruitful. Hence, "clear objectives and commitment", "market sensitivity and response" and "focus on core competence" are added to the final model, which is indicated in figure 5.2.

Entry Stage

From the success factors listed in figure 5.1, it can be easily noticed that contractors expressed more concern during the entry stage, i.e. they were more earnest to seize business opportunity and make it work. Apart from the three common factors (right partner, good connection and culture appreciation), the respondents added another four critical factors: being selective, going beyond contractor role, Singapore brand and government support.

Figure 5.1 Comparisons of Success Factors and Strategy for Overseas Ventures between General SMEs and Construction SMEs from Singapore

Unlike manufacturing or other services industries, construction service is project-based and has a short life-span. Consequently, contractors have to continuously look for business opportunity to generate sufficient revenue to stay relevant and remain in the industry. Thus, going beyond a contractor's role becomes important to differentiate one's services from the others. Understandably, construction SMEs are in dire need of government support to overcome their limited size and resources. Equally important, this study found the selection of partner(s) as critical for successful construction overseas.

In sum, all the above factors will remain in the final model, except for Singapore brand, which is included as added advantage rather than a critical success factor in the entry stage (figure 5.2).

Operational Stage

As indicated, both groups of SMEs highly value the importance of localization and training during their operational stage. They realized the long term benefits and added-value derived from such practices overseas. Nonetheless, productive training requires competent manager to lead and coach the local staff. Hence, this study found that *competent & empowered managers*, instead of competent staff, should be incorporated in the final model (figure 5.2).

In tandem with earlier discussion that Singapore contractors lack cooperative spirit, this study found that *trust* should be included in the final model. Trust is the most fundamental element in any joint collaboration that ties working partners together towards their goals.

One of the possible reasons why Singapore contractors did not consider flexibility and adaptability in their ventures overseas is because they are not used to negotiation and re-negotiation, which is very prevalent in developing countries where legal systems are not fully developed. While adaptation to local practice is indispensable, they should also know how to transform their management practices creatively and progressively into their overseas operations. Hence, this study

proposed that Singapore contractors should harness *creativity and adaptability*, especially in managing external stakeholders. In sum, localization & training, competent & empowered managers, trust, creativity and adaptability are added to the final model (figure 5.2).

Figure 5.2 Final Critical Success Model for This Research (items in *italics* are additions to the initial model)

Strategy for Growth

Compared to general SMEs, construction SMEs did not consider R&D as their strategy for growth. This is because most respondents in this study are building and civil engineering contractors. As such, their services are generally not technology driven. Also, few contractors have the means to conduct research on new construction methods, new materials or efficient machineries etc. In this regard, technology and R&D are not included in the final model.

Another strategy for growth is diversification, which is related to differentiation. Part of the objectives for diversification is to differentiate one's products and/or services from others. As discussed earlier, general construction services are mostly redundant in overseas markets. Hence, this study revealed that construction SMEs can differentiate themselves from others either through diversifying into related area to complement the existing services or into non-related area to seek new market or growth opportunities. Since they are closely related, *differentiation* (diversification) is included in the final model (figure 5.2).

From the comparison, it can be concluded that not all success factors highlighted in the theoretical model is suitable for construction SMEs. Conversely, some new factors, which are not opined by the respondents, are added into the final model. This final model is contemplated to shed new light on the essential success factors for Singapore construction SMEs in their overseas ventures.

5.3 Limitation

This research investigated the problems and the critical success factors of Singapore contractors in overseas ventures. Hence, the findings in this research only apply to Singapore contractors, and not other nationality or other construction industry players. Further research will need to be conducted for other players such as developers, consultants, and suppliers etc. to confirm the findings. Other limitations are discussed below.

Firstly, owing to the negative connotation given by the topic of this study, not many industry practitioners are willing to participate in this research. This is understandable because few people are willing to disclose their mistakes and problems openly and frankly. As a result, these eight cases may not be large enough to make the findings representative for all contractors who venture overseas.

Secondly, very little literature delves into the problems of Singapore construction SMEs in overseas ventures. Consequently, this research relies to a large extent on

literature on successful Singapore companies venturing overseas, instead of solely on contractors.

Thirdly, due to limitation of time and resources, research data were collected from Singapore contractors only, which represent a one-sided perspective. The research findings would be more meaningful and comprehensive if the local partners from the host countries were able to contribute their views for cross checking to achieve a more equitable perspective.

Fourthly, the interview duration was restricted to only an hour which might not be sufficient to cover all the issues of concern. Thus, only main findings are highlighted from each interview. In addition, interviewees were free to share about their major problems in overseas. There is a risk of bias as they might choose to speak more about the pleasant experience that would make them look good. They might not be inclined to share problems or difficulties encountered for fear of affecting their personal image or their firm's standing.

Fifthly, the variation in the interviewees' length of overseas experiences and country of their venture might result in a mixed opinion on the same issues discussed. In order to improve respondent reliability, only the key informant is engaged for data collection. The respondents for this research were all senior staff who was experienced and responsible for their company's ventures overseas.

Sixthly, the survey findings were abandoned owing to the low response rate (12%) received from the industry practitioners. The three main reasons to explain this are 'not many Singapore construction firms have overseas projects', 'many of the Singapore construction firms are not ready to share their experiences' and 'many of the eligible firms declined to participate owing to their public-listed status'. Thus, the survey results are not presented in this study and the data collected are used for reference only.

In summary, although there are some limitations, the findings of this inaugural research are envisaged to contribute to the body of knowledge about the problems and success factors of Singapore contractors in overseas ventures. It serves as the basis for more specific research in areas concerning Singapore construction export in the future.

5.4 Recommendation for Future Research

Arising from the above limitations, this study recommends a number of pertinent topics for further research. Apart from the findings contributed by this research on *contractor's problems and critical success factors*, more works can be done to continue the efforts to assist Singapore construction firms venture successfully overseas. Below are some of the recommendations for future research:

- Adopt same methodology and conduct semi-structured interviews with more companies for a more in-depth case-study into contractors' overseas problems and success factors. It is intended to gather more information to compare with what were presented in this research, thereby examining the reliability and validity of the research framework. The interviews can be arranged with the help from Singapore Contractors Association Limited (SCAL) and Building Construction Authority (BCA).
- Enlarge the scope of data collection to include the views from Singapore contractors' partner(s) in host countries. It aims to gather the information from both parties to avoid any discrepancy or biasness. Based on such information collected, the root causes of their successful or unsuccessful ventures overseas can be better identified. Such a research may entail a longer timeframe and higher expenses as overseas travel is required.
- Study the contractors' overseas problems and success factors using a survey questionnaire (attached in appendix B) and applying statistical analysis. As the survey results are abandoned in this research owing to poor response, it is proposed that future researcher(s) could seek assistance from SCAL and/or BCA in the form of collaboration when

conducting survey questionnaire. The ultimate purpose of performing statistical analysis is to evaluate the degree or the extent of each factor affecting overseas ventures' performance.

- Evaluate the practicality of the proposed critical success model. It is suggested that future researcher(s) apply the proposed model and evaluate its practicality for other contracting nationalities in their construction export.
- Study the applicability of the proposed critical success model for other construction players (developers, consultants, suppliers etc.) in overseas construction. The aim is to examine if there are any similarities and/or differences in success factors when such construction players extend their business horizon to overseas markets. The same methodology can be adopted with the different targets, and in this case, the other construction players except contractors.
- Study the feasibility and effectiveness of the solutions proposed in chapter 6. The main objective is to assess the effectiveness of the proposed solutions to ameliorate the export culture in Singapore. This can be done in collaboration with the relevant government authorities, such as BCA.

With the critical success model that has been developed for Singapore construction SMEs and the research findings from this study, the next chapter will present the proposed solutions to improve the Singapore construction export condition by leveraging principally on government's effort and initiatives.

CHAPTER 6 PROPOSED SOLUTIONS TO IMPROVE CONSTRUCTION EXPORT CONDITION

6.1 Introduction

Having identified the major problems and critical success factors for overseas construction ventures, it is important to examine the areas in which the government and contractors can work together to enhance the chances of success in overseas construction. Hence, this study has incorporated six proposed solutions to improve the Singapore construction export condition.

6.2 Proposed Solutions

As discussed earlier, the main problem is concerned with (limited) financial resources. Hence, this study suggested six measures, in which the government assumes an important role in their success or failure. Without government commitment and support, these solutions would be ineffectual. The six measures are discussed as follows:

a. Assistance from TLCs/GLCs

As shown in figure 6.1, there are two approaches TLCs/GLCs could help construction SMEs to export their services. Firstly, TLCs, being the Singapore government investment arm with strong financial muscles, could provide financial supports to Singapore contractors in the mode of investment. To begin with, contractors' business proposal is submitted to TLCs for evaluation. If TLCs find the proposal feasible, they could invest in the project by providing financial support. With TLCs providing their financial backing, the problem of liquidity is taken care of and contractors can concentrate on their efforts to manage their projects overseas. After a few rounds of such exposures, contractors could soon become independent and able to compete on their own.

Secondly, TLCs/GLCs can engage Singapore contractors as a minority partner or subcontractor for construction services overseas. These contractors are ready

to be hired for a range of services, including construction execution, construction management or project management. Tapping on their collaborative experiences with TLCs/GLCs, Singapore construction SMEs can learn and adapt to the culture and modus operandi of the host country's construction business. With such experience and the track records, they could be involved in bigger projects in future. As an example, TLCs/GLCs such as CapitaLand, Ascendas, Subarna, SembCorp, KeppelLand and others could take the lead in such arrangement. Since few Singapore contractors are currently venturing overseas, a small group of contractors could be the forerunner to try out this experiment. Should it prove successful, more contractors could join in. Through this arrangement, the contractors' problems of small size and limited resources could be resolved. Besides, drawing on vast resources of TLCs/GLCs, the high risks faced by the contractors could be significantly reduced.

Figure 6.1 Assistance by TLCs/GLCs for Singapore Contractors in Overseas Ventures

The question of whether TLCs/GLCs can benefit in such a working arrangement should be addressed. In term of monetary return, TLCs/GLCs might not find it attractive in the short term. However, there are long term benefits and prospects for TLCs/GLCs and even the whole Singapore construction industry and economy. For illustration, table 6.1 shows the positive impact with, and the negative impact without, such an arrangement. As indicated, the negative

consequences without such an arrangement can be far-reaching, and affect a lot of stakeholders in the Singapore economy including the construction industry. In contrast, the construction industry and Singapore economy would reap significant benefits with such an arrangement. In short, it can be concluded that assistance from TLCs/GLCs should be seriously considered and put into practice.

Table 6.1 Impact of TLCs'/GLCs' Assistance to Singapore Construction SMEs in Overseas Ventures

	Positive Impact with TLCs/GLCs	Negative Impact without TLCs/GLCs
1	Easier for Singapore contractors to venture abroad	Struggle in the juxtaposition of low domestic demand and incapability to venture overseas
2	Create employment	Construction company is likely to downsize (retrenchment) in order to stay relevant in this highly competitive industry
3	Opportunity to grow and sustain revenue	When construction companies collapse, there are huge number of people affected (include their family)
4	More opportunity for contractors to gain experiences and exposures to achieve World Class standard	High unemployment rate is likely to cause social problems
5	Overseas revenue earned contribute to Singapore economy	If engage other national to do the job would only let the money contribute to other national's economy instead of Singapore
6	Revenue earned could be used to develop company size and competency to become stronger and bigger	Hard to grow with limited fund and existing resources
7	More comfortable to work with Singaporean firms which promote efficiency and productivity	Potential difficulties of working with other nationals include language barrier, different mindset, culture disparity and etc
8	Promote nationalism, sharing and cooperation among own national	Fragmented, self centered , arm-length support
9	Shorten learning curve	Steep learning curve

b. Barter Trade

Other than the arrangement between TLCs/GLCs and Singapore contractors, it is also suggested that the government carry out barter trade with some developing countries wherever feasible. For instance, the Singapore government could provide funding to develop infrastructure in some developing countries, in return for payment in kinds such as raw commodities or energy supplies. With the government providing the funding, Singapore contractors are in an advantageous position to undertake such construction projects overseas. Malaysia, which carried out such barter trade with India, had proved to be successful so far. This win-win approach has made Malaysia contractors the biggest foreign players in India.

c. Soft Loans

Alternatively, Singapore government could provide soft loans or development assistance to developing countries with the condition that Singapore contractors have the priority to undertake the projects concerned. For instance, Japan has adopted this approach in Vietnam and engendered rewarding outcome for its contractors.

d. Inter-Government (G to G) Partnership

The Singapore Suzhou Industrial Park was a successful example of a government-to-government cooperative partnership which offers great opportunities and experiences for Singapore companies embarking on overseas ventures. The Singapore government could adopt this model and apply it to other developing countries. Under such auspices, Singapore construction firms would be well positioned as they are well-known and recognized for their expertise in developing and managing world-class industrial parks and township projects.

e. Specific Financial Package for Construction Export

This study found that existing financial assistance schemes by government agencies are not suitable and flexible to cater for construction export. Hence, it

is suggested that the government should either formulate a new financial assistance scheme that specifically targets construction export or make the existing schemes more industry-specific. The purpose is to make the schemes easier to understand and channel the construction practitioners to the appropriate schemes. This could save valuable time and minimize hassle in finding the schemes they are eligible for. More importantly, it allows government agencies to further customize the schemes to meet the needs of construction industry.

f. Promoting Collaborative Culture

It has been highlighted earlier that there is lack of cooperative spirit among Singapore contractors. To heighten the importance and urgency of having such a collaborative culture, government agencies could take the lead in its promotion through conducting seminars and workshops on partnering for the construction professionals. These programs aim to impart knowledge and skill for successful partnering and more importantly cultivate the right attitude of partnering for the contractors. They are critical because contractors must first be educated on the why and how of partnering before they venture abroad to develop their construction business.

In brief, these six measures could resolve the major problems confronting Singapore construction SMEs in their overseas ventures. The problem of small size is resolved by collaborating with TLCs/GLCs through partnering or financing. Overseas business opportunities for construction SMEs can be enhanced through government undertaking barter trade, providing soft loans and initiating government-to-government partnership with host countries. Contractors' lack of financial resources could be further resolved by the government's effort to re-examine and repackage existing assistance schemes to promote construction export. Finally, government could take the lead to inculcate a spirit of collaboration through a partnering training program.

Combining the final model of critical success factors and these six proposed measures, Singapore construction SMEs are envisaged to make successfully inroads in their overseas ventures.

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APPENDIX A

This appendix shows the interview questions used during the eight interview sessions with the industrial professionals.

Research Project: Challenges of Overseas Ventures for Singapore Construction SMEs

Interview Questions for Singapore Contractors

1.0 Interviewee Information:

Name	
Job title	
Years of overseas experience	
Country of working	

2.0 Internal Stakeholders: (Partner(s), Parent firm(s) and JV)

- How did you manage to find overseas projects? (Through contacts, client, government assistance, direct bidding, or etc)
- Are you using your company core competence as the asset for overseas venture?
- Was overseas venture part of your company growth strategy that has been planned in advance?

2.1 Preparation and Negotiation stage:

- Preparatory works to be carried out (e.g. Market research; Cash flow projection; Project viability; Resource planning & allocation)
- Negotiation period (How long it takes?)
- Can you highlight some of the critical issues that could not be overlooked in negotiation process?

2.2 Local Partner

- Why become your partner?
- Partner contribution (e.g. land; labor; machinery)
- Partner role (e.g. sourcing; bureaucracy clearance; public relations)
- Partner objectives (Any hidden agenda?) Partner needs
- Partner firm existing skill base & knowledge (e.g. managerial skills) Main Cause of Institutional Difference

2.3 Own role

- Your role in the JV

- Your contribution to the JV
- Objectives (Achieved?)
- Relationship management with your partner through out the JV
- Were both the GM and his deputy involved in the negotiation process?

2.4 Parent firm

- The role of both parent companies in the JV? (Support; Intervention & unrealistic expectation)

2.5 Financing

- Financial services with local or foreign banks?
- Budget Utilization/Cash Flow (shortage or sufficient)

2.6 JV Management Policy

- Control (Shared; Split; Dominant)
- Available of JV Code of conduct? (e.g. To promote business ethics)
- Available of well-defined working procedures? (e.g. Procurement procedures)
- Difficulties in works delegation?
- Decision making process (Tedious or Straightforward)

2.7 Staffing

- Hiring and Firing policy (Staff Quality; Local or Expatriate)
- Was nepotism a problem?
- Expatriate's commitment?
- Staff turnover rate (Staff retention policy; Relationship; Staff expectations & concerns)
- Overstaffing? (Productivity; Underemployment issue; Overhead costs)

2.8 Training for Localization/Know how transfer

- What are the skills to be trained or transferred? (e.g. Management skill; Problem solving; Time management; Presentation, etc)
- Difficulties encountered (e.g. English as the medium of training)

2.9 Culture

- Do you agree that local culture affects the project performance and your expectations?

- What are the cultural differences that trouble you most frequently?
- Importance of Face value (Respect);
- Guanxi (Benefits & Liability)

2.10 Communication & Coordination Problem

- Language barrier (understand, communicate and write)
- Work practices

3.0 External Stakeholders

3.1 Suppliers/Subcontractors

- Selection (Disputes? E.g. conflict of interest; nepotism; etc)
- Payment (Cash flow)
- Quality/Workmanship (Service/product) (rework rate; reject rate)
- Schedule of delivery
- Built, Manage and Maintain Relationship
- Switching cost

3.2 Client

- Built, Manage and Maintain Relationship (Future business opportunity)
- Payment

3.3 Government

- Bureaucracy (Permit/license application)
- Built, Manage and Maintain Relationship
- Corruption/Bribery

3.4 Architect/Consultant

- Design Changes & Claims
- Built, Manage and Maintain Relationship

3.5 Quality Supervision Unit

- Bureaucracy (Approval for work done)
- Corruption/Bribery

- Built, Manage and Maintain Relationship

4.0 Conclusion

- Opinion on collaboration with Singapore contractors in overseas
- Advantage of ‘Singapore’ company in overseas
- Success factors, personality required (patience & perseverance, due diligence & thorough) and Skills required (leadership quality; Interpersonal skills)
- Adequacy of government assistance

APPENDIX B

This appendix shows the survey questionnaire used.

Research Project: Challenges of Overseas Ventures for Singapore Contractors

Survey Questionnaires for Singapore Contractors

Part A: Personal Particulars

Name of respondents:	
Designation:	
No. of years of serving:	
Company name:	

Part B: Company Background

You may select more than one aspect that best describe your company. (Please tick (√) where applicable)

I. Type of Organization	
☐	Public listed company
☐	SME
☐	Government-Linked Company (GLC)
☐	Temasek-Linked Company (TLC)
☐	Private limited company
☐	Others (please specify):

II. Type of Construction Company			
☐	Civil engineering	☐	Building construction
☐	Environmental engineering	☐	Mechanical and Electrical engineering
☐	Process engineering	☐	Marine and Offshore engineering
☐	Others (please specify):		

III. Role of Your Company in Construction Project			
☐	Main contractor	☐	Sub-contractor
☐	Consultant	☐	Supplier
☐	Developer	☐	Others:

Part C: Overseas Ventures

- Please indicate the no. of years of your company overseas construction experiences in the box below.

No. of years of overseas construction experiences:	
--	--

- Which regions has your company ventured into? (Select (√) all applicable)

☐	South East Asia (e.g. Malaysia, Vietnam, Thailand, Indonesia and etc)
☐	South Asia (e.g. India, Sri Lanka)
☐	East Asia (e.g. China, Taiwan, Hong Kong)
☐	Middle East (e.g. Dubai, Jordan, Kuwait)
☐	Eastern Europe

	South Africa
--	--------------

3. Please indicate your company overseas and domestic turnover for the past 4 years in the table below.

Year	Overseas Turnover (S\$ Million)	Domestic Turnover (S\$ Million)
2004		
2003		
2002		
2001		

4. Which entry approach did your company adopt for the first overseas projects?

	Piggy ride with client		Joint venture
	Consortium		Direct bidding
	Through ADB/World Bank project		Others (please specify):

5. What are the critical issues that must be considered before your company venture overseas? (Please select (√) no more than **four** issues)

	Availability of financial resources
	Availability of human resources
	Availability of suitable opportunities for your company's services
	Availability of key contacts
	Availability of government assistance schemes
	Availability of suitable partner(s)
	Availability of sufficient market information about the venturing country
	Availability of competency/expertise
	Others:

6. Does your company have the construction services and solutions that will serve the target market in such a way that local (or indigenous) contractors cannot provide?

	Yes
	No

7. Of all the alternatives available (e.g. diversification), is overseas venture the best choice for your company's growth and revenue?

	Yes
	No

8. Which of the following factors impedes your company's **plan to export construction**? (Please select (√) all applicable that best describe your company's situation)

	Lack of competitiveness
	Lack of supports from fellow Singapore construction firms for joint collaboration
	Lack of successful examples of Singapore construction SMEs in overseas
	Lack of contacts
	Lack of suitable government assistance scheme for construction export
	Lack of adequate information about potential markets in developing countries

	Lack of capable staff
	Lack of opportunities available for overseas construction
	Lack of opportunities available that meet your company's strength
	Lack of overseas experience
	Limited resources (human and financial)
	Language problem
	Being influenced by past failing experiences
	Being satisfied with current status quo
	Inability to find suitable partner(s)
	Inability to meet overseas project financing requirements
	Intense competition
	Difficulty in securing financial loan for overseas project
	Too much uncertainties and unexpected changes in overseas markets
	Others (please specify):

9. Which of the following are the **major operational problems** that your company encountered in overseas ventures? (Please select (√) all applicable that best describe your company's situation)

	Cash flow strapped
	Corruption and/or bribery was required for approval
	Communication breakdown
	Contract renegotiation was required
	Conflict over employment issues
	Difficulty to reach consensus decision with partner(s)
	Difficulty to manage local staff's expectation
	Difficulty to conduct training for know-how transfer
	Difficulty to standardize company procedures for effective and efficient project management
	Difficulty to source high quality construction materials from local markets
	Difficulty to manage the subcontractors to achieve the required workmanships and standards
	Difficulty to create conducive environment for both Singapore and local staff to work harmoniously
	Difficulty to administer the contract signed
	Difficulty to repatriate money
	Difficulty to conduct smooth coordination across different trades of subcontractors
	Over budget
	Office politics and rumors
	Site accidents rate was high
	Adversarial relationship with partner(s)
	High staff turnover
	Project delay
	Default payment by project owner
	Government intervention
	Rules and regulations were not properly written and readily interpreted
	Others (please specify):

10. Which of the following are the **main causes** for your company's **operational problems**, as identified in Q9? (Please select (√) all applicable that best describe your company's situation)

☐	Lack of due diligence in market research
☐	Lack of staff commitment
☐	Lack of enough understanding of your business partner
☐	Different working method, procedures and practice
☐	Different standards, compliances and specification
☐	Shortage of qualified and competent staff (esp. staff for middle management)
☐	Shortage of skilled labors
☐	Local community interruption
☐	Local construction industry still in early stage of development
☐	Language barrier
☐	Contract was not properly negotiated
☐	Overconfidence (underestimate the risks involved)
☐	Overlooking the importance of conflict resolution strategy
☐	Overlooking the importance of proper risk management
☐	Overlooking the importance of engaging professional consultant for advice in new market
☐	Overambitious (take more than one project at one time)
☐	Fail to understand and accept the local practices for management purposes
☐	Fail to understand and appreciate the local culture
☐	Fail to adapt to the highly dynamic environment (e.g. sudden changes in rules and regulations)
☐	Too legalistic
☐	Shortchanged by partner(s)/subcontractor(s)/supplier(s)
☐	Bureaucracy and red tape
☐	Reliable and trustworthy supplier/subcontractor could not easily found
☐	Wrong partner selection
☐	Others (please specify):

11. Which of the following are the critical success factors for successful construction export? (Please select (√) **ten** factors)

☐	Find the right partner(s)
☐	Being flexible (e.g. in contract negotiation)
☐	Capable to understand and adapt to the local practices [Go global, act local]
☐	Competent & empowered leader(s) to lead the overseas operation
☐	Capable to maintain and manage good relationships with key personnel(s) in both internal and external stakeholders
☐	Must have clear venture objectives and direction for overseas expansion programme
☐	Must be selective (i.e. in project type, partner and client selection)
☐	Must understand the overseas market first before getting the first job
☐	Must understand the local expectation and manage them with care
☐	Act beyond contractor role (i.e. add value to existing services)
☐	Appreciate and respect the local culture
☐	Strong commitment and readiness to overcome difficulties (includes possibly of losing money for first few years)
☐	Spend considerable time of 1 to 2 years to develop good connection with the local key

	personnel before getting your first job
	Seek professional consultant's advice when invest in overseas market
	Sufficient resources (human capital and financial muscle)
	Sensitive to market changes and raise your crisis awareness
	Seek government assistance and tap on their incentives and assistance scheme provided
	Possess proven track-records
	Develop company branding through effective marketing skills (including relationship marketing)
	Diversified (e.g. diversified into related field which complement existing services)
	Highly emphasize on localization and training development
	Offer specialist services that could hardly find in the local market
	Never presume anything and takes thing for granted
	Others (please specify):

Part D: Partnering/Joint Venture/Consortium

1. Which of the following strategy your company find most viable for overseas construction?

	Direct bidding		Joint venture (JV)
	Consortium		Subcontracting
	Others (please specify):		

2. Does your company have any overseas partnering (either JV or consortium) experience?

	Yes
	No (Please go to Part E)

3. Please select the number of partnering projects (either JV or consortium) attained (sum of overseas and domestic projects) so far by your company.

	None		Less than 5
	More than 5 but less than 10		More than 10 but less than 20
	More than 20 and above		Others (please specify):

4. Please rank the following critical success factors for successful construction partnering (either JV or consortium)? (1 = least important; 5 = most important)

Creativeness and adaptability	1	2	3	4	5
Complementary strengths	1	2	3	4	5
Culture appreciation for both national and enterprise level	1	2	3	4	5
Commitment to generate win-win benefits	1	2	3	4	5
Clear definition of responsibilities, scope, role and contribution	1	2	3	4	5
Compatibility in management styles	1	2	3	4	5
Competence & proven track records	1	2	3	4	5
Trust and patience	1	2	3	4	5
Trustworthiness and credibility	1	2	3	4	5
Right partner	1	2	3	4	5

Respect and humbleness	1	2	3	4	5
Sincerity and openness	1	2	3	4	5
Strong branding	1	2	3	4	5
Detailed negotiation	1	2	3	4	5
Ability to provide financing	1	2	3	4	5
Proper control and decision making policy	1	2	3	4	5
Willingness to understand one another	1	2	3	4	5
Willingness to share resources & information	1	2	3	4	5
Establishment and communication of conflict resolution strategy	1	2	3	4	5
Regular monitoring of partnering process	1	2	3	4	5
Others (please specify):	1	2	3	4	5

5. The following questions are used to measure your company perception of success in overseas partnering projects. (Please select the answer that best describe your company's situation)

Did construction partnering offer higher profit margin?	Yes	No
Did your company enjoy the benefit of construction partnering?	Yes	No
Did your company benefit from your business partner?	Yes	No
Did your company satisfy with the business partner's performance?	Yes	No
Did your partner and you successfully realize the venture objectives?	Yes	No
Did you think your business partner satisfy with your company performance?	Yes	No
Did you think your company will perform better without the business partner involvement?	Yes	No
Would you consider your previous partner for future cooperation opportunity?	Yes	No
Others (please specify):		

Part E: Government Assistance Scheme

1. Please tick (✓) the scheme(s) that your company is aware of and knows how to apply.

☐	Regionalization Finance Scheme (RFS) by IE Singapore
☐	Loan Insurance Scheme (LIS) II by IE Singapore
☐	SME Access Loan by IE Singapore
☐	Deal Flow Connection by ACE
☐	Variable Interest Loan Scheme (V-LOAN) by SPRING Singapore
☐	Local Enterprise Finance Scheme (LEFS) by SPRING Singapore
☐	Growth Financing Programme by EDB
☐	None (Please go to Part F)
☐	Others (please specify):

2. Have you applied for any of the schemes listed in Q1?

	Yes
	No (Please go to Part F)

3. How do you find the schemes offered?

	Difficult to understand
	Not flexible to cater for actual needs
	Not suitable for construction project
	Complicated application procedures
	Long awaiting time pending approval
	No ideas at all
	Others (please specify):

Part F: Proposed Solutions

1. Please rank the following aspects based on its effectiveness in addressing the problem of inadequate financial resources for construction SMEs in construction export? (**1 = least effective; 5 = most effective**)

	Repackage the existing financing schemes in accordance to the needs in construction export
	Provide incentives for overseas construction partnering in the form of joint venture or consortium
	Encourage the establishment of export-import financial institutions that provide financial facilities for Singapore exporters and investors overseas
	Collaborate with TLC(s) or GLC(s) in construction export
	Join the consortium organized by IE Singapore through their iPartners programme
	Others (please specify):

2. Please rank the following proposed solutions based on its effectiveness in helping Singapore contractors in overseas ventures. (**1 = least effective; 5 = most effective**)

	Government Provide soft loan to developing or third world countries for infrastructure development purpose in exchange for the opportunities to involve in the projects concerned
	Encourage inter-governmental projects in which Singapore contractors are actively involved in the projects concerned.
	Government could implement barter trade (e.g. provide funding to develop infrastructure in developing country/Third World country, in return these country repay the funding by supplying the same value of commodity or gas or raw materials to Singapore)
	Government agencies provide assistance schemes that can assist construction SMEs effectively in construction export (e.g. import tax free)
	Encourage collaboration between TLC/GLC(s) and construction SMEs for overseas construction
	Government agency helps to select and locate suitable partner for construction SMEs in overseas markets
	Establish a platform to mix and match the right contractors to the opportunities available
	Establish more free trade agreements
	Encourage the merger among construction SMEs to form large conglomerate (especially to increase their financial muscles) for overseas competition

	Others (please specify):
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3. Which of the following aspects can construction SMEs pursue to enhance their chances of success in overseas construction? (Please select (√) all applicable)

	Commit to become a trustworthy and reliable partner
	Transform from general contractor to specialist
	Join iPartners program (organized by IE Singapore) as a member for the Singapore Building and Infrastructure Consortium (SBIC)
	Emphasize highly on training & development to improve staff performance
	Collaborate with tertiary institutions to further improve company core competence
	Diversify into other related areas to complement existing services of the company
	Review constantly company's strategy to embrace changes taking place in the surrounding regions
	Develop, maintain and manage good relationships with existing clients so as to enhance future cooperation opportunity
	Engage former minister(s) as the company advisor and tap on their previous contacts to further develop company overseas operations effectively
	Tap on previous working relationship with subcontractor(s)/client(s) to further develop company overseas operations (e.g. Joint hand with Chinese subcontractor (with past working experiences in Singapore) for company operation in China)
	Maintain and continuously expand company's networks so as to increase company's responsiveness to the opportunity available
	Others (please specify):

Thank you for your time and effort spent in this questionnaire.
Your help is very much appreciated.

APPENDIX C

This appendix shows the Singapore government assistance schemes available for overseas ventures.

Types of scheme	Key Features	Agency
Loan Schemes		
Regionalization Finance Scheme (RFS)	Fixed cost loans for acquiring fixed assets for the overseas projects	International Enterprise Singapore (IES)
Loan Insurance Scheme (LIS) II	1. Variable cost financing scheme that meets a company's short term financing needs in Singapore and overseas. 2. Co-sharing of loan insurance premiums between the government and the enterprises	International Enterprise Singapore (IES)
SME Access Loan	This aims to help companies that have viable business plans but limited or no track record, companies that are constrained by availability of collateral and companies that are seeking loans for internationalization	International Enterprise Singapore (IES)
Deal Flow Connection	Assist enterprises to gain access to over 100 financial intermediaries and various sources of funds such as venture capital funds, debt financing, private equity as well as hybrid financing; Through the intermediaries, enterprises can receive assistance on financial management as well as other finance related advisory news, government financial assistance programmes and finance-related information	Action Community for Entrepreneurship (ACE)
Tax Incentives		
Overseas Enterprise Incentive (OEI)	Provides tax exemption on qualifying income from approved overseas investments up to 10 years	International Enterprise Singapore (IES)
Overseas Investment Incentive Scheme (OII)	Allows approved companies to defer the taxes due from their profitable operations in Singapore for a period of 2 years, using current year losses arising from approved overseas investments	International Enterprise Singapore (IES)
Double Tax Deduction (DTD) for Market Development	Allows approved companies to deduct against taxable income twice the eligible expenses incurred for approved projects	International Enterprise Singapore (IES)
Double Tax Deduction for	Allows double deduction against income of	International

Overseas Investment Development Expenditure	approved expenditure incurred in developing overseas investments	Enterprise Singapore (IES)
Human Resource Assistance Scheme		
Asian Business Fellowship Programme (ABF)	Develop a pool of manpower talent who are keen to acquire in-depth knowledge of doing business in China, India and the Asia region	Building and Construction Authority (BCA)