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**Do Country-specific Factors Matter?
Entry Strategies of Foreign Venture
Capitals and Investment Criteria of VCs
in China**

By

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Originality Statement.

I here declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree at the University of Edinburgh or any other educational institution, except where due acknowledge is made in this thesis.

Any contribution made to the research by others, with whom I have worked at the University of Edinburgh or elsewhere, is explicitly acknowledged in the thesis. I also declare that the intellectual content of this thesis is the product of my own work except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

Signed

Date.....

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Chapter 1 Introduction

1.1 Background to Research

Ever since IDGVC first established its venture capital fund in Beijing in the late 1980's, venture capitalists (VCs) have been debating whether US investment selection criteria should be revised for investments in China. On the one hand, those VCs with a foreign venture capital background, such as returnees (here referring to those Chinese with an educational background from a developed Western country) and foreign VCs believe that they can replicate their successful experiences of developed VC markets in China without too many amendments. On the other hand, local VCs claim that US practices do not suit China as they do not reflect sufficient knowledge and understanding of Chinese business practices. Twenty years on, the debate still shows no sign of abating. Indeed, investment competition between foreign VCs and Chinese VCs remains as intensive as ever (Zero2IPO Research Centre 2006).

In the last two years, China has experienced progressive development in its venture capital presence internationally, largely due to the diversification of industries and companies attracting investments. The segments enjoying remarkable growth include high-tech enterprises as well as such industries as the construction, hotel and leisure, and retail segments. Several other sectors are also attracting increasing attention for VC investment, including outdoor media, green technology and innovations, online education and

supplementary schooling, software start-ups and the hospital care system. Cleantech innovation is especially growing as the country rigorously explores solar power generation, new materials and clean production, seeking to ameliorate its water and air pollution, which far exceeds Western safety standards.

The market has also matured significantly. Concerns about whether foreign investments would only serve to enhance the personal interests and pocketbooks of the local population, as opposed to enhancing the development of the investments, have subsided. The continuous growth of the Chinese economy and the middle class has also helped to prioritise innovation and attract foreign investment to China. Notably, in the past most economic improvements came from government-led programs; this trend is beginning to dissipate as growing numbers of foreign financiers come to see China's VC and PE market as a promising growth opportunity. No doubt the PRC's government will continue to create barriers to unlimited foreign investment in China, but many of the other factors that once hindered foreign investment into the country have become much more manageable.

This thesis has its roots in the debate above and draws upon the background and experiences of the researcher in the field of venture capital. The researcher has over six years experience as an investment manager in listed companies in Taiwan and for three years served as managing director of Zero2IPO Research Centre, a leading venture capital and private equity research institute in China. The researcher has a wealth of personal contacts with VCs in China and this has proved invaluable in being able to conduct

the empirical study that forms the basis of this thesis. In addition, as a Taiwanese expatriate, the researcher also has the advantage of conducting this study in the Chinese language in addition to having a comprehensive knowledge of both Chinese and Western venture capital practices.

The background to this thesis is best understood by examining the phenomenon of venture capital in China and previous research in the field. Venture capital was first introduced to China in 1985. While the pace was still sluggish before the 21st century, it began to soar following the recovery of worldwide internet bubbles in late 2001. Nowadays, China¹ has become the world's second largest venture capital market in terms of total venture capital investments, only second to the US (Zero2IPO Research Centre 2006, 2007). In fact, China has attracted the most foreign direct investments of all developing countries in the past ten years according to the official publications of United Nations (World Investment Report 2007). Venture capital pool available for investments in mainland China totalled to 24.57 billion US dollars in 2007 (Figure 1.1), 2.4 times that of 2001. Venture capital investments also soared to a historical high in 2007, more than three times that of 2001 (Figure 1.2).

¹ The research scope of this study covers only the venture capital activities in mainland China excluding Taiwan, Hong Kong and Macau. Venture capital investors from Taiwan, Hong Kong and Macau are viewed as foreign venture capital investors according to Chinese legal and financial laws.

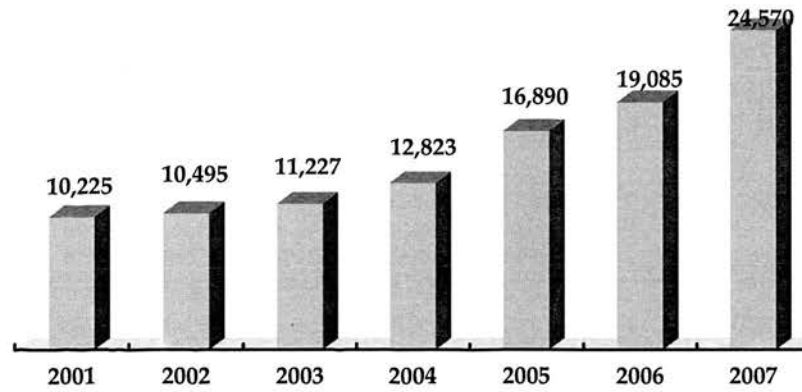


Figure 1.1 Total Venture Capital Pool Available for Investments in China (US\$M)

Source: Zero2IPO Research Centre, Venture Capital Reports 2001-2007

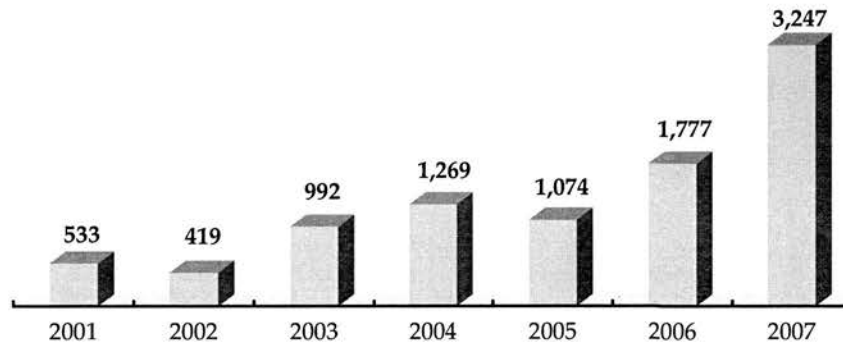


Figure 1.2 Total Venture Capital Investments in China (US\$M)

Source: Zero2IPO Research Centre, Venture Capital Reports 2001-2007

Particularly, foreign-currency investments (primarily invested in US dollars) accounted for 87.6% or 2.845 billion US dollars in 2007 from the base of 258 million US dollars in 2001. Figures 1.3 and Figure 1.4 show that foreign

VCS are the main driver of China's venture capital market contrasting to the sluggish growth of Chinese venture capitals during the same period.

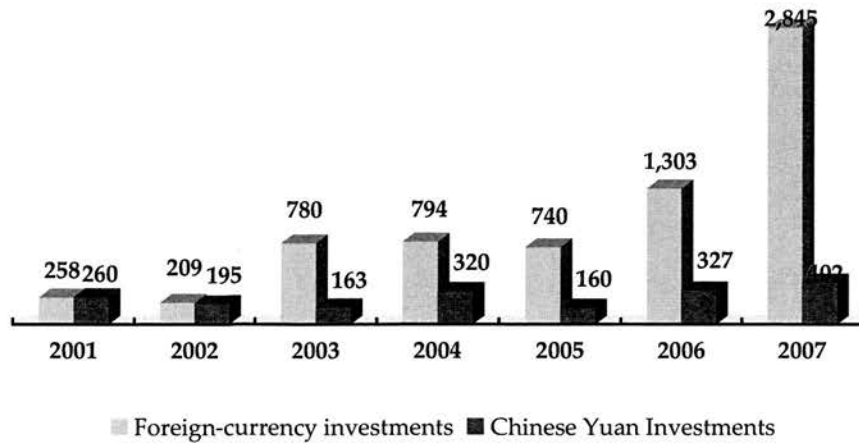


Figure 1.3 Venture Capital investments: Foreign vs. Chinese (US\$M)

Source: Zero2IPO Research Centre, Venture Capital Reports 2001-2007

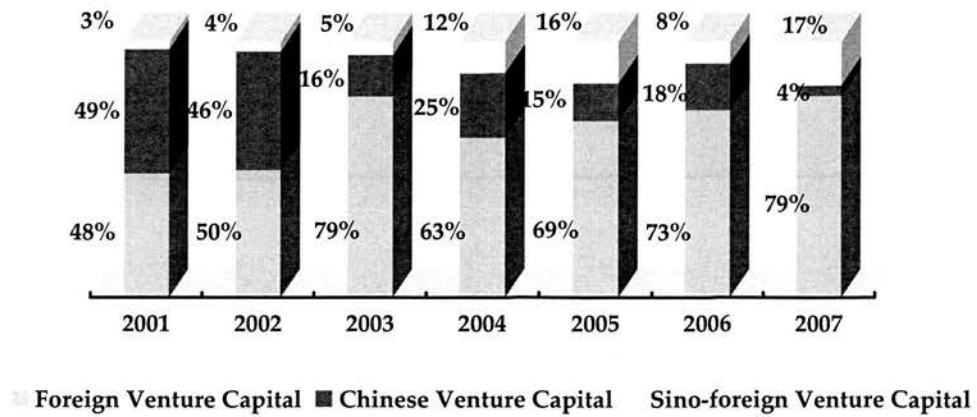


Figure 1.4 Percentage of Venture Capital Investments by Investor Type (US\$M)

Source: Zero2IPO Research Centre, Venture Capital Reports 2001-2007

One of the main reasons for China's boom is that many early foreign VCs were rewarded with handsome returns through various exit strategies since the recovery, with trade sale and IPO the two most popular options with investors, as shown in Figure 1.5. In addition, of the 40 interviewed foreign VC firms operating in China, only two generated internal rates of return (IRR) below 10% during the period of 1994 and 2005 (Figure 1.6). Such strong profit track records helped China attract more interest from foreign investors, as shown in Figure 1.7.

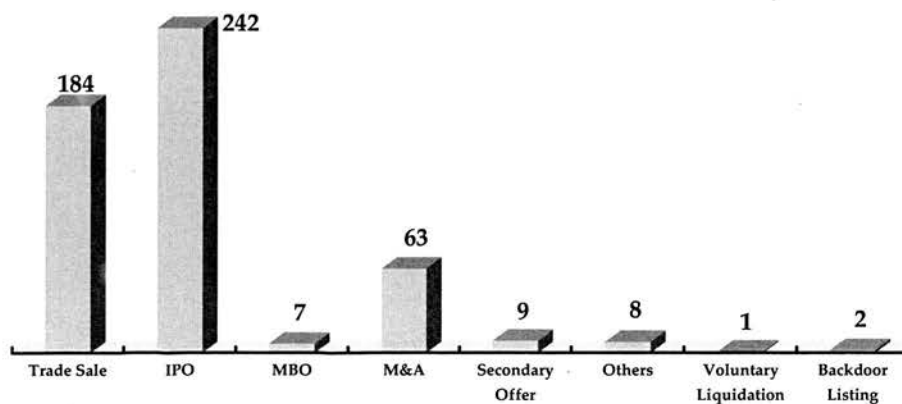


Figure 1.5 Distributions of Exit Options Backed by Venture Capitals in China between 2002 and 2007

Source: Zero2IPO Research Centre, Venture Capital Reports 2002-2007

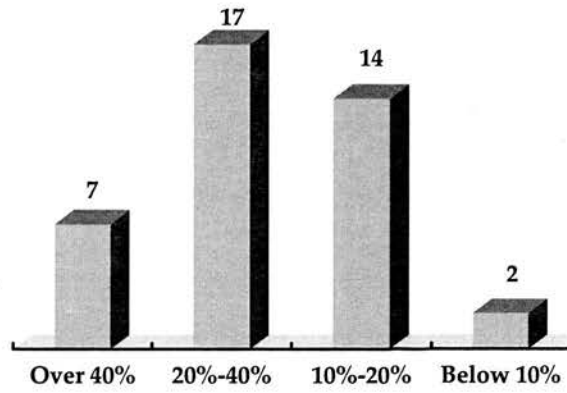


Figure 1.6 IRR Distributions of Foreign Venture Capital Funds, 1994-2005
 Source: Zero2IPO Research Centre, Chinese Venture Capital Performance
 Report 1994-2005

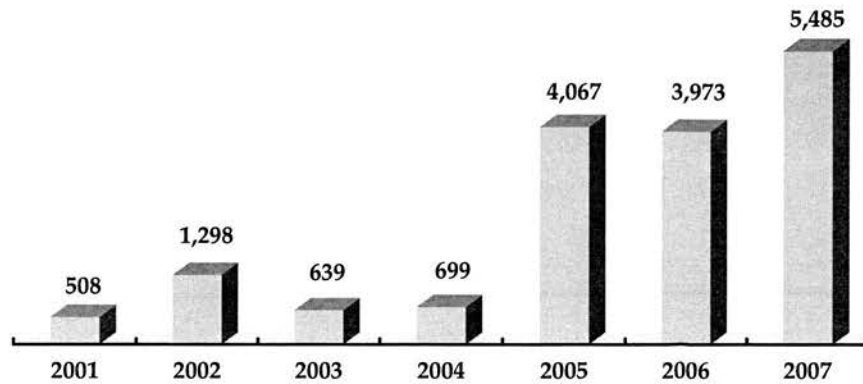


Figure 1.7 Fundraising Activities in China (US\$M)
 Source: Zero2IPO Research Centre, Venture Capital Reports
 2001~2007

Today, the venture capital industry in China and much of Asia remains largely unexplored, except for Japan (Hurry et al., 1992; Ray and Turpin,

1993). Although institutions have led to strong uniformity in VCs' behaviours (Fried and Hisrich, 1995), Asia and China in particular, have institutional environments that are distinctly different from that of the US or Europe (Boisot and Child 1996, Peng 2000). Therefore it cannot be presumed that venture capital operates in China the same as it does in the West (Bruton et al, 1999).

One notable limitation of previous comparative studies of venture capital 'systems' has been the emphasis on assessing investment criteria based on a small sample or a single country (predominately the US) and then to extend this paradigm to all unveiled venture capital markets irrespective of their institutional differences. Some studies argue that their findings can represent the whole of Asia simply based on the sample of a few Asian countries or suggest that their generalizations can be applied to all transition economies based on the empirical evidence of one single country. For example, Bliss (1999) examined the selection process of VCs in Poland and hoped to include all transition economies in the model. Bruton et al. (2000) argue that the values of venture capital professionals in Asia, US and Europe are all shaped by normative institutional processes and how those views are implemented around the world is shaped by cognitive/cultural institutional forces in the given region of the world based on the statistics of a few countries.

While this thesis suggests that findings can be validated in some specific countries or similar cultural backgrounds, it is worth questioning whether conclusions can be extended across boundaries undefined. It would be

reasonable to expect there are differences not only between countries in a similar geographical region, due to institutional, legal and regulatory aspects, but between countries from different continents, given the diversity of socio-cultural, historical and developmental factors.

Because the Chinese venture capital industry is relatively nascent, institutional and legal infrastructures and assumptions on VC behaviour and process - taken for granted in established, traditional "hot beds" of venture capital such as Silicon Valley - are not likely valid in the Chinese context. In fact, almost all foreign VCs in China that this researcher has engaged with in private occasions have stated that they need to overcome various unique challenges in China that are simply not challenges in their home markets. For example, the promulgation of Provisions on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors (Circular 10) in 2006 have limited foreign venture capitals to invest in Chinese firms with the so-called "red chip model" i.e. investing in offshore holding entities and then to guide these firms to overseas listings. To overcome this problem, foreign venture capital firms have divided into opposing camps in their investment strategies. Some foreign investors are much more willing to invest with Chinese Yuan translated from foreign currency in ventures registered onshore holding Chinese Yuan-denominated assets than they once were. There is also the perception that it is easier for onshore funds to get deals approved. In fact, investments by purely domestic funds do not require Ministry of Commerce (MOFCOM) approval, while investments by foreign-invested funds still need approval as they are still "foreign" in the eyes of MOFCOM.

While some foreign venture capital funds still stay with the "red chip" model, they hope to reduce foreign exchange translation exposure and avoid the above mentioned offensive approval procedures. The other reason is that

some “sensitive” industries are restricted or prohibited from foreign capital investments, such as internet and portals, public media, formal schooling, public utilities, banking and securities. Investing in an offshore-registered entity ensures foreign venture capital investment free from the monitoring of Chinese jurisdiction and avoids the restriction on investment category. However, the fact is that only few Chinese ventures have established the offshore holding structure before the release of Circular 10 in 2006. Therefore many foreign venture capitals seek to raise onshore currency funds from domestic investors or Sino-foreign venture capital funds². Such local funds are generally one of the funds under the same management regime of the foreign venture capital firm but registered onshore and in the name of Chinese citizens in order to enjoy preferential tax rates. However, they are still noted “foreign” venture capitals at registration.

These diverse investment strategies of foreign venture capitals indicate the complexity of Chinese venture capital in nature. It also reflects the importance to get a full picture how foreign venture capitals strive to invest in China and their investment strategies. Without a clear understanding of these various forms of strategies, any conclusion on venture capital in China will be likely to end in bias.

In fact, all government preferential policies and regulations provide benefits only to venture capital firms registered onshore (Zero2IPO Research Centre, 2008) i.e. onshore venture capital funds investing with Chinese Yuan, no matter it is originated “foreign” or not. For example, the Notice of the National Development and Reform Commission on Cooperating with Finance Administrative Departments to Do a Good Job in the

² A Sino-foreign venture capital fund in China has many different incorporation forms and management styles, while here referring to the fund registered onshore and the whole VC investment cycle completed in Chinese Yuan. A foreign investor of the fund has to put up capitals translated into Chinese Yuan.

Implementation of Preferential Tax Policies for Start-up Investment Enterprises, only provide preferential tax benefits to venture capital firms registered onshore and investment made within the designated high-tech categories, while most foreign venture capital funds are still registered offshore and invest through their agencies in China. Therefore they are not qualified to enjoy any preferential legal status.

However, government protection is like a double-sword for purely domestic or local venture capital funds i.e. non-“foreign”-initiated onshore venture capital funds. Their investment cycle must be all completed in Chinese Yuan from investment, exit to re-financing, because there is still no guiding law for cross-boundary currency translations regarding domestic venture capital funds. That is to say, domestic or local venture capital funds will be exposed to foreign exchange exposure once the investment is made in Chinese Yuan liquidated overseas and vice versa, while foreign venture capital-initiated onshore local currency funds are still protected by foreign exchange laws to freely exchange Chinese Yuan into foreign currency and vice versa. In fact, the whole Chinese legal system holds the “ownership” as judgement criterion for the management of venture capital firms.

Furthermore, most domestic venture capital funds were initiated by local Chinese governments and SOEs before 2006 (Zero2IPO Research Centre, 2005). These state-controlled venture capital funds are generally guided to invest in government projects while rewarding incentive is lesser. Successful private companies and wealthy individuals have massively joined to raise private-owned funds since 2006. These private-owned venture capital funds are established with different purposes in nature from state-owned funds. If state goals are not considered as guiding principals for private-owned funds but rewarding incentive, how their investment criteria can be compared to

those of foreign venture capitals and state-owned funds are worth questioning.

This empirical study will explore how country-specific factors impact on foreign venture capital investors and will examine and compare the real investment criteria used by VCs operating in China. Indeed, this thesis intends to challenge the applicability of the US model to other transition economies³ and to China in particular, through a large empirical study of venture capital in China. This study will include an assessment of successful investments backed by venture capital firms closed before 2005. It is the first attempt to generate such empirical evidence in the Chinese context and aspires to offer new contributions for a stakeholder audience that includes academics and researchers, new venture capital investors, practitioners and policy makers from banalistic viewpoints.

³ According to World Bank, the so-called transition economies are commonly understood to refer to countries which have moved or are moving from a primarily state-planned to a market-based economic system, with private ownership of assets and market-supporting institutions. These countries include those of the former Soviet Union (FSU) and those of Eastern and Central Europe closely allied with the Soviet Union, as well as more recently countries in Asia and Africa undergoing market transformations of various degrees, such as China, Mongolia and Vietnam (www1.worldbank.org/sp/safetynets/Transition.asp).

1.2 Research Objectives and Method

There are three objectives of this study stated as follows:

As a venture capital practitioner in China, the researcher agrees the conclusion in previous studies that China has the institutional environments that are entirely different from the US where the venture capital selection value is originated. The researcher also believes that these variances will drive all venture capitalists operating in China to amend their original decision making criteria in order to adapt to local environments. Therefore the first objective of the study is to identify what unique factors affect accept/reject funding decisions of venture capitalists (VCs) operating in mainland China. The integration of unique Chinese factors affecting investment decisions will help examine the applicability of the US model to transition economies and to China in particular and explain the difference and similarities.

Secondly, this study will examine unique China factors affect broadly accepted investment criteria are reshaped based on developed VC markets and the entry strategies of foreign venture capital investors into China.

At last, this study will distinguish what investment criteria are used by VCs in China and the relative importance of these investment criteria to the accept/reject decision of VCs. Results will also be compared to those discovered in the US and other transition economies.

In order to fulfil each of the objectives above, the study must be able to answer the following questions:

1. What unique China factors should be considered? Why do they influence the decision making of VCs in China, and how?
2. What strategies do foreign VCs employ to enter China market, and why?
3. Can venture capital firms operating in China be classified according to the particular ownership and investment criteria and what are these classifications?
4. Do diverse VCs operating in China share common investment criteria? What are the differences and similarities? Does successful investment experience in developed VC markets will affect VCs' decision values in China? Do diverse ownership structures of venture capital firms in China will produce different scenarios of investment criteria?
5. Further, what are the differences and similarities between the findings of this study and the broadly accepted investment criteria based on developed VC markets and previous generalisations of transition economies?

This study employs both qualitative and quantitative methods in order to satisfy the above research objectives. Traditional methods simply divide venture capital firms operating in China into two types: foreign venture capital firms and Chinese venture capital firms (White et al. 2002, Zeng 2004), or offer no classification, which in turn will ignore the complexity of ownership of venture capital firms operating in China. In comparison, a grounded theory approach is adopted in this study to distinguish the various

entry strategies of foreign venture capitals and to examine the nature of Chinese venture capital firms in order to categorise venture capital firms operating in China. Given the fact that China is identified in this study as a unique context for venture capital activity and there has been no established study concerning the entry modes of foreign venture capitals into China, this study cannot compare the insights provided by the first interviewee with previous findings. Grounded theory is such a research method that aims at presenting new theories that result from a thorough analysis of empirical materials (Glaser and Strauss, 1967, Strauss and Corbin 1994, 1998, Dougherty 2002) that best suit to develop a precise classification of China venture capital firms according to their ownership structures through face-to-face interviews with 124 VCs operating in mainland China.

Analytic Hierarchy Process (AHP), Delphi approach and Conjoint Analysis are jointly applied to investigate the investment criteria of classified venture capital firms. Specifically, AHP and Delphi approaches are jointly used to discriminate the relative importance of first-tier (generic) investment criteria while conjoint analysis is to identify the values of second-tier (subordinate) investment criteria under their respective generic category. There are two reasons for applying multiple methods in this study. The first is to reduce the difficulty in conducting questionnaire survey when applying conjoint analysis. With the adoption of both AHP approach and conjoint analysis, comparisons of profiles can be reduced to a manageable level. The second reason is to generate a saturation of analysis on each level of investment criteria. The Delphi approach can assist in both the generation of

an initial set of first-tier investment criteria for further testing in the pilot study and in the summarization of conclusions when applying AHP approach.

In addition, this study does not limit itself to any sampling method but simply count on personal connections (guanxi) of the researcher in China venture capital industry because VCs are generally poor informants in nature according to the understanding and practical experience of the researcher. Therefore any predetermined sampling method will face the risk to get sufficient sample data.

The initial set of investment criteria for further testing is produced based on the results of pilot study which includes three sources – broadly accepted investment criteria discovered in previous studies, conclusions from the pilot study and the observations of the researcher. Initial findings of this study are sent to proportional interviewees participated in the survey for further validation. The final outputs are analysed, explicated and compared to each other and findings of past studies.

1.3 Research Structure

The thesis is divided into five chapters. The first chapter is the Introduction and includes the background and motivation, research objectives and method and questions and structure of this study.

The second chapter is the Literature Review that establishes the theoretical framework and methodological design for this study by considering previous literature and research findings. In this chapter, the researcher examined broadly accepted investment criteria based on developed VC markets to consider whether US investment criteria can be applied universally and in particular, to the Chinese context. The evidence and how those institutional forces affect VC's decision making behaviours were also systematically reviewed.

Chapter three describes the Research Design and Methodology. Various approaches are described in details, including their pros and cons, definitions, process, etc.; why and how they are applied in this research. The chapter describes the development of a pilot study involving five VCs from venture capital firms operating in China with different backgrounds and the resultant preliminary model of investment criteria encompassing China-specific factors and broadly accepted investment criteria. The chapter also discusses how observations of the researcher are incorporated into the analysis and describes the quantitative analysis method deployed with the aid of SPSS.

Chapter four includes the analysis and discussion of findings from the study. The entry strategies of foreign venture capital firms and the classification of Chinese venture capital firms are first examined and then deployed within a comparative framework to assess the similarities and differences between the investment criteria of the sample within the study. Weightiness of each investment criteria for each category of venture capital investors are identified and ranked as the basis for cross-category comparison. The importance of unique Chinese factors to VCs' investment criteria are evaluated and contrasted with broadly accepted investment criteria and those of transition economies.

The final chapter concludes the thesis, identifies contributions to knowledge and applicability of findings to theory, practice and policy. The chapter also discusses the limitations of the research and offer suggestions and guidelines for future research. The structure of the thesis is shown as Figure 1.8. The structure shows that the pools of investment criteria used for formal testing are derived from three sources – literature review, pilot study and the observation of the researcher. Literature review helps the researcher to collect generally accepted investment criteria while pilot study offers distinctive Chinese factors that never mentioned in previous studies. The study also adds the observation of the researcher in order to complete the initial set of investment criteria for formal testing.

In order to conduct an in-depth study, the researcher pursues a proper classification of China venture capital investors as the basis for analysis. A proper classification will help analyse the casual relationship between the

ownership of venture capital firm and its corresponding set of investment criteria. Otherwise, the results will end in generality and ignore the diversity of Chinese venture capital industry.

In addition, initial results are sent to a proportional sample for further validation. The purpose of validity measurement is to examine to what degree our results and findings can accurately address our research objectives. Analysis, discussions and conclusions as well as suggestions are all based on the validated results.

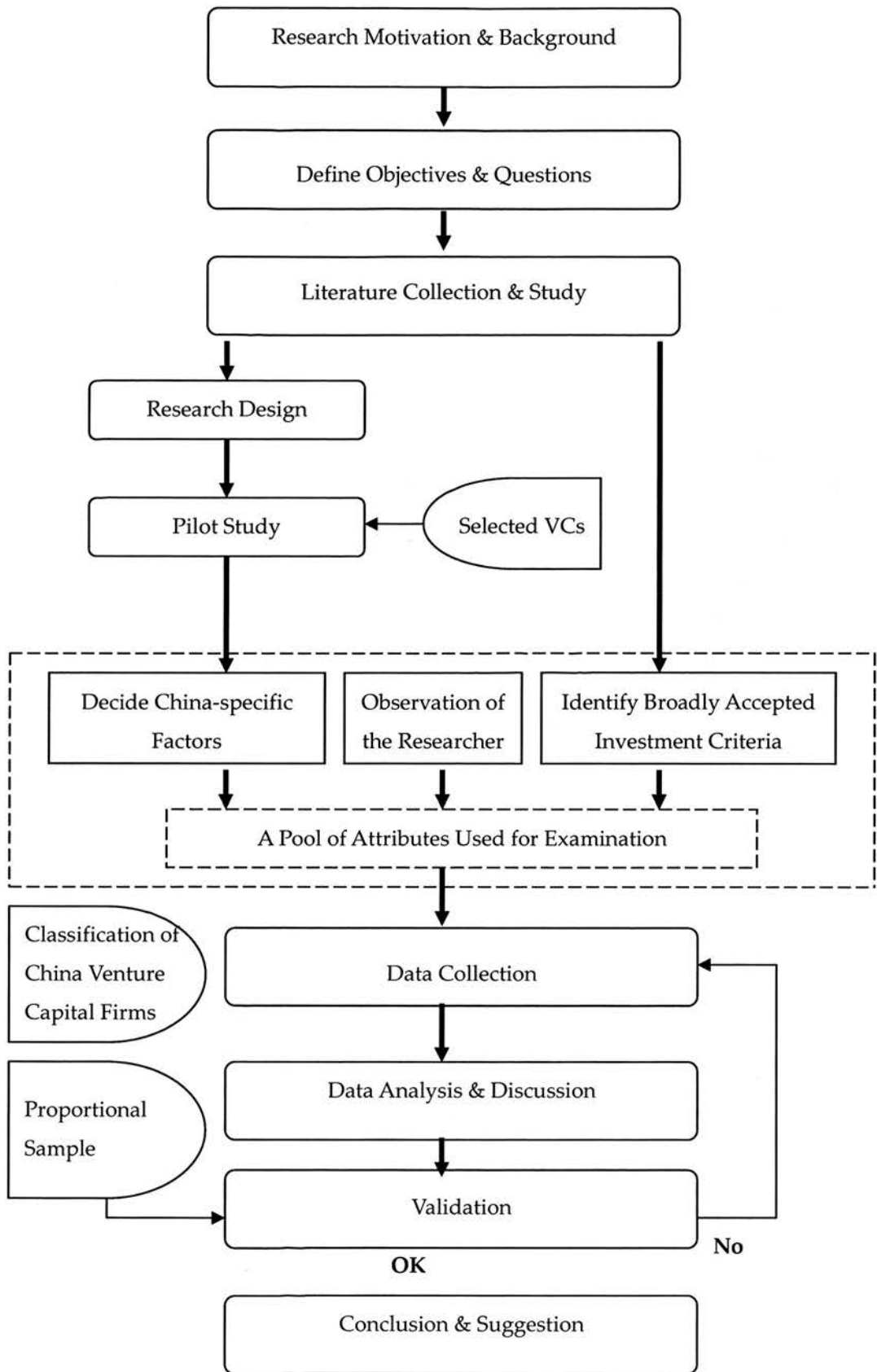


Figure 1.8 Research Structure

Chapter 2 Literature Review

2.1 Investment Criteria of Developed VC Markets

Since the early 80's, many studies have drawn various conclusions to explain the decision-making process of VCs regarding developed VC markets, especially the US. It appears that the earliest research on decision making of venture capitalists is a study in Pittsburgh by Wells (1974) concluding that only proposals that pass through the screening stage were thoroughly investigated in the evaluation stage.

Venture capitalists are recognised as very successful in predicting venture performance (Sandberg 1986, Kahn 1987). VCs strive to determine the probability of success or failure by evaluating information related to the particular new venture (Zacharakis 1995). However, funding can only be made when entrepreneurs and their companies can pass through the scrutinising activities of VCs. Venture capitalists rely on a largely subjective assessment procedure based on the business plan presented by the management team of the venture (Tyebjee and Bruno 1984). Tyebjee and Bruno (1981) interviewed 46 US venture capitalists and concluded that management skills were the most important factor influencing the investment decision. Tyebjee and Bruno (1983, 1986) further used the sample of 46 VCs to solicit responses of VCs. They attributed the 23 characteristics of deals to five evaluation dimensions: (1) market attractiveness (represented by size, growth and accessibility), (2) product differentiation (including the uniqueness of the product, patent and profit margin), (3) managerial capabilities, (4) environmental threat resistance, and (5) cash-out potential (reflecting the likeness to liquidate the investment). They argued that VCs are risk-averse and profit-oriented in their "accept/reject" decision, and

willing to invest in risky deals if the risk is offset by the profit potential. Expected return is determined by market attractiveness and product differentiation while perceived risk is determined by managerial capabilities and environmental threat resistance.

MacMillan et al. (1985) developed a list of 27 criteria classified under five generic categories: 1) entrepreneur's personality; 2) entrepreneur's experience; 3) product characteristics; 4) market characteristics; and 5) financial considerations where the most significant subordinate criterion of each generic category includes the entrepreneur and the team (personality and experience), protectability of the product (product characteristics), market growth (market characteristics) and the required rate of return (distinguished as ten times that of the investment within five to ten years) respectively. In fact, five of the top ten essential criteria suggested by the authors are related to the entrepreneurs themselves i.e. the capability for sustained effort, demonstrated leadership, track record relevant to the venture, reaction to risk and capability to articulate the venture well. The study also stress the problem that VCs may be influenced by their own perception of the nature of a desirable response that is seen appropriate to their position as representatives of the venture capital community, rather than the investment criteria they actually use. A later study found that VCs identify management staying power and familiarity with the market as the two most important characteristics of a successful venture (MacMillan et al. 1987).

In comparison, the generic criteria identified by Fried and Hisrich (1994), while similar to those of MacMillan et al. (1985), are not confined to new or technology-based investments but encompass ventures in all development stages and industries, concept, management and returns. Fried and Hisrich

(1994) constructed a two-stage approach to categorise various investment criteria. The initial-stage was a multiple-case study based on 18 VCs from evenly three different geographical locations to gather information on which to base the model. The second stage included five new VCs to verify the initial model. This approach addresses the problem associated with hypothetical or non-contingent responses, tendencies towards self-reporting bias as the reward of the investment is unpredicted, and also helps increase the accuracy of recollection. Fried and Hisrich (1994) suggest that many VCs have firm-specific criteria on investment size, industries in which they focus, geographic location of the venture and stage of financing. The screening stage involves a cursory glance at the business plan without an extensive investigation of the venture. Many proposals pass through the firm-specific screen only to be rejected without detailed review when VCs analyse the proposal with their generic criteria. The study distinguished fifteen investment criteria, expanding on the three basic constructs identified by Hisrich and Jankowicz (1990). However, it did not verify whether VCs would agree with such constructs.

Although various set of generic criteria have been identified in studies over the past two decades, there is a frequent emphasis on the quality of the entrepreneur and management team. For example, Hutt and Thomas (1985) argue that "management's track record" is important to VCs as is the basic market and product differentiation and knowledge of the competition. VCs view "quality of management" as most important when making an investment decision (Goslin & Barge 1986). Gorman & Sahlman (1986) suggest that the major cause of venture failures is senior management capabilities and product development strategy. Khan (1987) identified five characteristics of entrepreneurs that appear as critical predictors to future

venture success as: “entrepreneur’s desire for success”, “creativity/ingenuity”, “tenacity/courage”, “enthusiasm/capacity for work”, “competence in field of endeavour” and “nature of product” where three predictors are related to the quality of people. More specifically, it is the quality of entrepreneur/management team.

A number of later studies focusing on the decision making of VCs have generated various findings. Some are new, while some are related to the same concept with new definitions or appeared in isomorphic norms. For example, the context of “market” has been re-expounded under “continuity of market”, “market location” (Hisrich and Jankowitz 1990), “market growth” (Riquelme and Rickards 1992), etc.; “product”, “the use of technology” (Hisrich and Jankowitz 1990), “patent protection”, “functioning prototype”, “gross margin” (Riquelme and Rickards 1992), “long-term growth of the industry” (Hall and Hofer 1993), etc. Goslin and Barge (1986) identified the quality of management are most critical to VCs’ investment criteria in which it contains seven sub-categories: “general management experience”, “marketing experience”, “a balanced team”, “track record”, “financial experience”, “realism” and “good references”. These identified investment criteria expressed in different nouns are in fact one same trait of VCs’ evaluation characteristics or can be grouped into one generic category. Therefore generic definitions in previous studies appeared in isomorphic forms of “Managerial Capabilities”, for example, such as “management skills” (Tyebjee and Bruno 1981; Meyer et al 1993), “management” (Hisrich and Jankowitz 1990; Fried and Hisrich 1994), “entrepreneurs considered management” (Bruno and Tyebjee 1983, 1986), “entrepreneur’s knowledge and management expertise” (Riquelme and Rickards 1992), “senior management” (Gorman and Sahlman 1986) and “quality of management”

Goslin and Barge 1986), are retagged as “Managerial Capabilities” in this research in order to compare the findings across studies in details and as a whole. In addition, for those subordinate criteria related to the quality of entrepreneur and management are all re-categorised into the generic criterion “Managerial Capabilities” in this research. Inferring from this, retagging and re-categorisation are applied to other generic criteria and their subcategories respectively in order to facilitate cross-research comparisons and generalisations in this research.

Table 2.1 outlines such retagged generic categories (generic criteria) and each of its subcategories (subordinate criteria) from the findings of previous studies on developed VC markets. Table 2.2 summarises the literature on VCs’ investment criteria in developed VC markets and the methods, data collection, sample and statistical analyses. It appears the selection criteria “Managerial Capabilities”, “Market Prospect” and “Product/Service Differentiation” are most frequently mentioned in previous studies. Other frequently mentioned generic criteria include “financial considerations” and “exit potential”.

The manifold methods to investigate VCs’ investment criteria described in the Table 2.2 can be divided into two types: post-hoc methods and real-time methods. Studies used post-hoc research methods (see Tyebjee and Bruno 1981, 1984; Bruno and Tyebjee 1985; Gorman and Sahlman 1986; MacMillan, Siegel and SubbaNarasimha 1985; MacMillan, Zemann, and SubbaNarasimha 1987; Kahn 1987) employing traditional ways of interviews and/or surveys, may be subject to post-hoc rationalisation and recall biases as people are poor at introspection (Huber and Power 1985; Golden 1992; Sandberg et al. 1987; Shepherd and Zacharakis 1998). Post-hoc methods typically ask VCs to list and rank decision criteria based on their assumed

outcomes on the investment decision (Sandberg et al. 1987). Data collected were often further analysed with a variety of statistical methods, such as factor analysis and cluster analysis. Problems are associated with retrospective reports because decision maker may be motivated to bias the results (March and Feldman 1981), report their “espoused” rather than “in-use” investment criteria (Shepherd 1999) as well as possible cognitive and perceptual limitations (Fischhoff 1982). In addition, factor analysis was often used in these studies but it is not appropriate to investigate VCs’ investment criteria when the sample is small (Mark 2008), while qualitative methods are based on in-depth study of simply one or a few entities (Briskman 1966; Driscoll 1974; Roberts 1991; Silva 2004) in order to presents us a profile of the VC firm’s operation. They both are limited to the size of sample to generate meaningful conclusions.

Therefore later studies began to adopt real-time methods, such as additive utility models (e.g. conjoint analysis) (see Riquelme and Rickards 1992; Muzyka et al. 1996; Zacharakis et al. 1998; Shepherd et al. 1998; Shepherd 1999; Shepherd and Zacharakis 1999; Zacharakis and Meyer 2000; Zacharakis and Shepherd 2001; Shepherd et al. 2003; Bart et al. 2005) and verbal protocol method (see Sandberg et al. 1988; Hall and Hofer 1993), to investigate VCs’ investment criteria. Sandberg et al. (1988) suggested that verbal protocol analysis is a real-time experiments which require VCs to “think aloud” as business proposals are being evaluated. Hall and Hofer (1993) suggest that the verbal protocol method elicit richer knowledge and understanding of the decision making process while post-hoc methods only focus on the results. However, the problem associated with the verbal expression (to “think aloud”) of knowledge is still a difficult task for experts (Patel and D’Souza 2008). Riquelme and Rickards (1992) criticised that the

verbal protocol method is more than an “art” than a science while conjoint analysis is more appropriate for the evaluation of VCs’ investment criteria. In addition, the analysis and interpretation involved in verbal protocol techniques without being aided with other techniques, such as computer algorithms, are likely to be subjective (Cooke and McDonald 1987; Riquelme and Rickards 1992).

Conjoint analysis has been used in many fields in relation to decision making science, especially in marketing where it has accumulated a strong tradition (Steward 1988, Green and Srinivasan 1990). Conjoint analysis is a general term referring to a technique that requires respondents to make a series of judgments, based on profiles, from which their “captured” decision processes can be decomposed into its underlying structures i.e. the attributes’ significance in the judgment, how these attributes affect the judgment and the relative importance of each attribute in the decision process (Shepherd and Zacharakis 1999). Riquelme and Rickards (1992) was the first research, to the researcher’s knowledge, applying conjoint analysis to examine VCs’ investment criteria, which allows the investigation of what Argyris and Schon (1974) refer to as theories “in use” in contrast to “espoused” theories of action. Conjoint analysis has its unparalleled advantage over other methods and therefore is also adopted in this research.

Table 2.2 also indicates that there is no study basing on developed VC markets ever mentioning how country-specific factors may influence VCs’ investment criteria. In fact, there is not any study providing us such insights into VCs’ decision making science so far. With the emergence of new VC markets from NICs (Newly Industrialised Countries) in the 1980s’ to BRICs (Brazil, Russia, India and China) in the Millennium, it is worth wondering if foreign/multinational venture capital investors will revise their investment

criteria used in their home countries (generally developed VC markets) to adapt to these emerging markets, particularly China, and how they can be compared to those of local and joint venture capital investors. The purpose and outcome of this study will add contribution to the field of VC's investment decision science.

Table 2.1 Summary of Retagged Generic Category and Each of the Subcategories

Generic Criteria	Subordinate Criteria
Managerial Capabilities	<ol style="list-style-type: none"> 1. Management Commitment 2. Management Skill 3. Track Record of Management Team and Entrepreneur 4. Demonstrated Leadership of Entrepreneur 5. Management/Entrepreneur's Personality 6. Management/Entrepreneurs' Experience 7. A Balanced Management Team 8. Realism 9. Capability for Sustained Effort 10. Management/Entrepreneur's Knowledge and Expertise of the Product/Service/Technology 11. Marketing Experience/Skill 12. Financial Experience 13. Good References of Management Team and Entrepreneur 14. Staying Power of the Management 15. Familiarity with the Market 16. Entrepreneur's Desire for Success 17. Entrepreneur/Management Reaction to Risk 18. Creativity/Ingenuity of the Entrepreneur 19. Tenacity/Courage of the Entrepreneur 20. Entrepreneur's Enthusiasm/Capacity for Work

Product/Service Differentiation	<ol style="list-style-type: none"> 1. Product/service Feasibility 2. Product/service Uniqueness 3. Product/service Characteristics 4. Patent Protection 5. Product/service Development Failure 6. Functioning Prototype 7. Expected Gross Margin of Product/Service 8. Product/Service Timing 9. Product/Service Strategy, Capitalisation and Implementation
Market/Industry Prospect	<ol style="list-style-type: none"> 1. Level of Market Competition 2. Market Size 3. Market Growth 4. Market Accessibility 5. Market Characteristics 6. Unique (Market) Opportunity for the Venture 7. Continuity of Market 8. Market Uniqueness 9. Market Location
Financial Considerations	<ol style="list-style-type: none"> 1. Expected/Appropriate/Required Rate of Return 2. Brilliant Financial Projections 3. Profitability of the Venture
Exit (Cash-out) Potential	The likeness to liquidate the investment
Balanced Risk Consideration	<ol style="list-style-type: none"> 1. Environmental Threat 2. Funding Base and Risk
Business Proposal	<ol style="list-style-type: none"> 1. Balanced Structure 2. Professionally Presented
Others	<ol style="list-style-type: none"> 1. Strategic Competitive Investors 2. Personal Chemistry between VCs and Entrepreneur/Management 3. VCs' Gut Feel 4. Use of Technology of the Venture

	5. Deal (Term) Factors
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Table 2.2 Summary of Findings on Investment Criteria in Developed VC Markets

Generic Criteria	Summary of Findings	Researcher	Sample	Method
1. Managerial Capabilities 2. Product/Service Differentiation 3. Market Prospect	Management commitment, product and market are three essential criteria to VCs' decision making.	Wells (1974)	8 US VCs	Personal interviews
Managerial Capabilities	Management Skill is the most important criterion.	Tyebjee & Bruno (1981)	46 US VC funds	Percentage & Frequency
1. Market Prospect 2. Managerial Capabilities 3. Product/Service Differentiation	Entrepreneurs considered management, market potential, market competition and product feasibility are major reasons for the denial.	Bruno & Tyebjee (1983, 1986)	193 US Entrepreneurs considered but rejected by US VCs	Chi-square & ANOVA
1. Market Prospect 2. Managerial Capabilities 3. Product/Service Differentiation 4. Exit Potential 5. Balanced Risk Consideration (Environmental Threats)	Market attractiveness (size, growth, and accessibility), managerial capabilities, environmental threats, product differentiation/uniqueness and cash-out potential are most important criteria. VCs are risk-averse and profit-oriented in their "accept/reject" decision, and willing to invest in risky deals if the risk is offset by the profit	Tyebjee & Bruno (1984)	46 US VC funds	Factor, Regression & Discriminate Analysis

	potential. Expected return is determined by market attractiveness and product differentiation while perceived risk is determined by managerial capabilities and environmental threat resistance.			
1. Managerial Capabilities 2. Market Prospect 3. Product/service Differentiation	Track record of the management, product differentiation and market competition are essentials to investment decision making.	Hutt and Thomas (1985)	4 US VC firms	Means
1. Managerial Capabilities 2. Product/Service Differentiation 3. Market Prospect 4. Financial Considerations (Expected Rate of Return)	They identified 27 criteria used by VCs in the evaluation of venture proposals into six categories: the entrepreneur's personality, experience, characteristic of product, characteristic of market, expected rate of return and venture team.	MacMillan et al. (1985)	102 US VCs	Factor & Cluster analysis
1. Managerial Capabilities 2. Product/Service Differentiation	The cause of venture failure is ascribed to senior management and product development failures.	Gorman and Sahlman (1986)	49 US VCs	Frequency & Mean
Managerial Capabilities	VCs invest in the quality of management team. The quality includes general	Goslin and Barge (1986)	30 US VC funds	Means & Frequency

	management experience, marketing experience, a balanced team, track record, financial experience, realism and good references.			
1. Business Proposal 2. Financial Considerations	The quality of business proposal (BP) is essential to accept/reject decision. A quality BP should be well balanced, professionally presented and of brilliant financial projections.	MacMillan and Subba Narasimha (1986)	27 US funded & 57 unfunded plans from 5 US VC firms	T-test & F-test
Managerial Capabilities	They discovered the traits of a successful venture are the staying power of the management and familiarity with the market.	MacMillan et al. (1987)	150 US investment firms from 67 US VC firms.	Factor, Regression & Cluster analysis
1. Managerial Capabilities 2. Product/Service Differentiation	The most important traits to VCs are entrepreneur's desire for success and nature of product. The creativity/ingenuity of the entrepreneur is critical to venture success, while VC's judgment is not a good predictor of venture success.	Khan (1987)	36 US VC firms from A Guide to Venture Capital	Regression
1. Managerial Capabilities 2. Market Prospect	The study stressed that characteristics of the industry, proposed	Sandberg et al. (1988)	1 US VC & 3 business proposals	Verbal Protocol Analysis

3. Proposed Strategy	strategy and track record of the entrepreneur and team are most critical criteria and identified a contingent relationship among the investment criteria. However, the sample was too small to generate conclusions.			
1. Managerial Capabilities 2. Market Prospect 3. Product/Service Differentiation	VCs based on intuitions to make investment decisions, which are “personal chemistry” or “gut feel”. Investment decision constructs are grouped into three areas – management, unique opportunity and appropriate return.	Hisrich and Jankowitz 1990	5 US VCs	In-depth Interviews
1. Managerial Capabilities 2. Product/Service Differentiation 3. Market Prospect 4. Balanced Risk Consideration (Funding Base & Risk)	The general traits of the entrepreneur, management team, continuity of market, product-market uniqueness, funding base and risk in evaluating investment proposals are most critical investment criteria. Other policies include the business plan itself, use of technology and market location of the venture. However, the sample is not sufficient to	Hisrich and Jankowitz (1990)	5 US VCs	Repertory grid, factor & Cluster analysis

	support conclusions.			
Managerial Capabilities	Managerial Skill is most important to VCs' investment evaluation. Marketing skills are also considered significant to VCs' decision making.	Dixon 1991	30 US VC funds	Means and Standard deviation
1. Managerial Capabilities 2. Product/Service Differentiation 3. Market prospect 4. Financial considerations	The study concludes eight factors: entrepreneur's knowledge, management expertise, unique product, patent protection, functioning prototype, market growth, level of competition and expected gross margin.	Riquelme and Rickards (1992)	6 UK VCs	Conjoint analysis, Self explicated, Factor analysis
1. Financial Considerations 2. Market Prospect	Profitability and long-term growth of the industry	Hall and Hofer (1993)	4 VC firms	Verbal protocol analysis
1. Managerial Capabilities 2. Market Prospect 3. Product/Service Differentiation	Determinants of venture failure are external market conditions, management skill, product timing, product strategy, capitalisation and implementation	Meyer et al. (1993)	5 VCs	In-depth structured Interviews
1. Financial Considerations 2. Market Prospect 3. Managerial Capabilities 4. Exit Potential	Fifteen Criteria were expanded up on three basic constructs: Concept, Management and Returns identified by Hisrich and Jankowicz (1990).	Fried and Hisrich (1994)	18 VCs	Grounded Theory Approach

<p>1. Management Capabilities</p> <p>2. Product/Service</p> <p>3. Market Prospect</p> <p>4. Financial Considerations</p> <p>5. Strategic Competitive Investors</p>	<p>The study concludes financial, product, market, strategic competitive fund, management team and competence and deal factors are most critical to VCs' investment decision with the employment of trade-off conjoint method.</p>	<p>Muzyka et al. (1996)</p>	<p>31 VCs</p>	<p>Conjoint analysis</p>
<p>1. Managerial Capabilities</p> <p>2. Financial Considerations</p> <p>3. Product/Service Differentiation</p>	<p>VCs exhibit substantial heterogeneity in investment selection behaviour. Three types of investors were identified: those who focus on technology, those who focus on finance and those who focus on people.</p>	<p>Bart et al. (2005)</p>	<p>68 European early stage high-tech VCs</p>	<p>Conjoint Analysis & Cluster Analysis</p>

2.2 Evidence on Applicability of US Investment Criteria

A large number of previous studies on decision-making criteria of VCs are generally based on samples from developed VC markets, especially the US, from the review above. From major initial developments in the US, there has been a diffusion of the US venture capital model and expertise first to the UK and then throughout Europe and beyond (Manigart et al. 2000). While the U.S venture capital industry still represents about two-thirds of the world's total, and is still 4-6 times the size of Western Europe's, other countries have indeed been adopting many American investment and fund-raising practices and at least a superficial case for convergence in venture capital techniques can be made (Megginson 2004). To date, most of our understanding of venture capital is based on the US venture capital industry (Bruton et al. 2000). The US venture capital model has a high profile since venture capitalists have funded such notable firms as Intel, Apple Computer, Microsoft, Genetech, and Federal Express. In the U.S., typically the venture capitalist invests and manages the investable capital as general partner in a limited partnership. Most of the capital invested is provided by institutional investors. The limited partnership has a finite life by the end of which all of the investments must either be liquidated or distributed to the partners. The venture capitalist chooses companies for investment and negotiates the purchase of stock in private transactions. The U.S. industry is noted for its strong interconnections between venture capitalists, (Bygrave, 1987); similar strong interconnections have also been found within Europe (Sapienza et al. 1996). In part, such strong interconnections developed historically due to the relatively small number of firms active in the industry during its initial expansion. The small size of the industry at this time encouraged venture capitalist to work and invest together to limit their risk.

The interconnections are seen in the fact that venture capitalists in the U.S. often communicate with each other about potential investments, frequently seeking advice from each other (Fried & Hisrich, 1994). Additionally it is common, particularly in early stage investments that venture capitalists seek out other venture capitalists as co-investors (Reiner, 1989). Syndication allows the venture capitalist to diversify their investment risk and to share knowledge (Bygrave, 1987). Finally, after an investment is made, the venture capitalists in the U.S. often cooperate in monitoring the investment (Bruton et al. 1998).

From Table 2.2, it can also be concluded that US VCs frequently stress the importance of “Managerial Capabilities” (the quality of management), “Market Prospect” and “Product/Service Differentiation” to investment decision. In fact, the selection criteria of US VCs and broadly accepted investment criteria are almost synonyms in both academia and practice. For example, Zutshi et al. (1999) suggest the similarity in institutional environments between Singapore and western countries, such as the financial markets, legal and accounting regimes. The authors contend that entrepreneur's characteristics or top management's capabilities are seen as being primary indicators of the venture's potential by VCs and found that the investment criteria adopted by successful VCs were no different from those adopted by less successful VCs. Under such circumstances, the study argues that the venture capital industry in Singapore is simply a copy of the US and Singaporean VCs evaluate a venture based on their investment preferences and processes that are not very different from those adopted in the US.

On the other hand, some studies offer contradictory conclusions of generic VC investment criteria based on the US model. For example, Kaplan and Stromberg (2006) have re-examined the ongoing debate regarding VCs'

predominant investment criteria. They suggest that different groups of VCs may stress different sets of investment criteria, and that such an orientation may serve as a meaningful predictor of a VC firm's success. VCs focused on product/market criteria are more likely to be successful than VCs concentrated on the entrepreneur. Keeley and Roure (1990) found that the entrepreneur/management team is not an important predictor of VCs' decision policies. Also, a study by Zacharakis and Meyer (1998) - that involved VCs evaluating 50 firms in a decision-making experiment using conjoint analysis - argue that the entrepreneur is not as critical as suggested in post-hoc studies, while the factors of market and competition were found far more important. Similarly, Hall and Hofer (1993) found that key decision-making criteria are the expectations on long-term growth of venture and profitability of the industry in which the proposed new venture would operate, with the entrepreneur/entrepreneur team not regarded as an important evaluation criterion.

Moreover, a number of other studies have found that the nature of venture capital industry varies from country to country (Bygrave and Timmons 1992; Fried and Hisrich 1994). The differences are reflected in the organisational form of venture capital firms, sources of funding, disciplines and sources of venture capital professionals, VCs' perception of local environments and investment strategies, etc. Studies on the Asian venture capital industry (Bruton and Ahlstrom 2003, Boisot and Child 1996) also suggest that investment criteria of VCs should not simply be applied universally. For example, the incorporation form of a limited partnership as the most popular form adopted by venture capital organisations in the US are rarely used in China in which the incorporation form of a limited liability constitutes the majority of venture capital organisations (Zero2IPO Research

Centre 2007). In Japan, most venture capital firms are formed by financial institutions and most of their investment personnel are seconded from the investors for a few years then returned to organisations (Kenney and Han 2002). Kenney and Han (2002) contended that such deep-rooted connection appears in the stronger commitment of Japanese investors' to venture capital funds than US investors. Americans who joined the venture capital subsidiaries of U.S. firms often resign to establish or join an independent venture capital firm, while Japanese professionals who served in the venture capital subsidiary nearly always returned to the parent firm. In this way, the Americans did exhibit a long-term commitment to venture capital, even though the institutions did not. The ultimate consequence was that the U.S. accumulated a corps of trained venture capitalists, while in Japan this corps formed far more slowly and applied different investment philosophy that is more inherited from their parent firm. In this context, VCs are likely to exhibit different evaluation skills and method depending on the focus and nature of the VC industry in a particular country (Manigart et al. 2000).

In Poland, Bliss (1999) suggested that government influence and the nascent legal system are major causes influencing VCs' investment decision in Poland while these two factors have yet been proved significant in previous research based on developed VC markets. Therefore such variations indicate that VCs may be more flexible or develop different sets of investment philosophy to adapt to local environments.

Guo (2008) suggests that VCs' investment strategies share both commonalities and differences with the practices in the United States. VCs in China also consider the characteristics of the entrepreneur as the most important factor in their ex-ante project screening that is the same to the US practice. Specifically, social network (guanxi) of the entrepreneur is stressed as attached to the capability of the entrepreneur. In addition, VCs in China pay much more

attention to the geographical location of the projects due to the concerns about the public policies of local governments, a venture with high-tech concept and the supply of human resources in different areas.

Knight (1994) conducted a cultural/cross-continental analysis of the criteria used by VCs in Canada, Europe and the Asia-Pacific region to evaluate venture proposals. The results were compared to that of MacMillan et al. (1985) and concluded that high technology investments are not as popular with VCs in other parts of the world as they are in the US. In addition, Megginson (2004) found striking differences between American and European practices, and indeed between VC practices in different European markets. Manigart et al. (2000) suggested that VCs' choices vary by region and/or country based on the sample of five countries (US, UK, Holland, France and Belgium). The study concluded similar systems and venture capital markets stress varying importance on different valuation methods, with theoretically 'correct' methods not always being preferred in practice. They further highlighted the differences between VCs of different countries in investment valuation methods, which are ascribed to the commanding corporate governance mechanism or the level of development of the venture capital market even after taking into account between-country differences in the relative importance of investment stages and venture capital types (Manigart et al. 2000). Bygrave and Timmons (1992, 1999) found US venture capital investments overall provide a greater proportion of funds into early stage ventures than its European counterparts, which suggests the greater need to stress the capabilities of entrepreneurs.

Such difference is also validated in transition economies. For example, Bliss (1999) first, to the researcher's knowledge, examined the selection process of VCs in Poland, categorised as a transition economy, and using the model of Fried and Hisrich (1994), found the model to be transferable,

suggesting that reported differences are due to the unique characteristics of Poland's transitional economy. Bliss contests that among the screening criteria included in the Fried and Hisrich model, only deal size mattered to Polish VCs. Therefore the firm-specific screening stage, where generic criteria described by Fried and Hisrich (1994) are applied, was eliminated in his model. Further, Bliss found that governmental influence and a nascent legal system are important to investment criteria of VCs in Poland. Managerial ability is difficult to measure in Poland as few Polish entrepreneurs have long enough track records in a free-market environment. Moreover, Bliss found that Polish entrepreneurs did not properly understand the role of a VC and the whole venture capital cycle or how the relationship between the dyads of themselves and VCs should be structured and managed. Hence Polish VCs had to cultivate connections with related government officials in order to solicit new deals – generally state-owned enterprises (SOEs). The result was that many business proposals did not fit VCs' focused industry categories and a dearth of deal sources in Poland.

Critically speaking, Bliss (1999) empirically examined the fitness of the broad investment criteria and established a selection model for Poland that identifies differences in decision making of VCs between the West and Poland. Although his study is based on a relatively small sample of six interviews with Polish VCs and offers no empirical testing, Bliss argues that the total managed fund size is large enough in size to represent the large proportion of the Polish venture capital industry. While his study attempted to generate an evaluation model and a set of generic criteria for all transition countries, such a model needs further validation and suggests that detailed considerations in the diversity of transition countries in cultural environments, level of economy development, legal and political system, etc.

may be required.

In contrast, this research examines the applicability of investment criteria based on developed VC markets, also classified as a transition economy, and generalised different sets of investment criteria used by VCs of various investor backgrounds in China. This research does not attempt to generalise a universal set of investment criteria to represent all transition economies or against widely accepted investment criteria in previous researches. Rather, the researcher demonstrates that VCs will develop the set(s) of investment criteria best suit local conditions and there are differences in the use of investment criteria between various ownership types of venture capital firms, even in one same country.

The study by Karsai et al (1997) on Hungary – another transition economy in Central Europe, also suggests the diverse nature and differences in VCs' selection philosophy between countries of similar institutional backgrounds in the same continent. Their Hungarian venture capital evaluation model overall demonstrates features that are neither similar to that of Poland nor the West. In Hungary, VCs are particularly challenged by adverse selection problems in screening investment proposals, with these difficulties posed in screening the capabilities of management who typically have not operated in a market environment before and where information may be particularly subjective. Karsai et al. further argue that the most important criteria when evaluating a venture by Hungary VCs are: (1) a clearly defined timing and nature of exit; (2) a requirement for entrepreneurs to have a thorough knowledge of their area; (3) a certain percentage of ownership for the VCs; (4) a satisfactory financial ration benchmark; (5) satisfactory reasons for the funding; and (6) mutual agreement about the legal structure of the investment. While the study designed the questionnaire

based on survey instruments carried out in the US and the UK adapted to the circumstances in Hungary, the results stressed the exit feasibility and ownership control over the venture in the Hungarian context, was not mentioned in previous studies based on these two countries. However, government influence on venture capitalists' selection criteria, as concluded in Bliss's study (1999), were not accentuated by Karsai et al (1997).

The evidence on the difference in investment philosophy between developed VC markets, especially the US, and transition economies was also identified from venture capitalists operating in India – the world second largest transition nation. Wright et al. (2004) compared foreign (primarily US) venture capital firms in India, domestic venture capital firms in India, and US venture capital firms in their domestic markets. The results showed that foreign firms in India place significantly greater emphasis on product and market factors as well as accountants' reports than domestic firms in India. They lay significantly less emphasis on financial contributions of management in assessing risk and own due diligence and information from entrepreneurs than do U.S. firms in their home market. Venture capitalists of foreign firms operating in India make more use of information from trade publications relating to production capacity and technology and information from accountants' reports than do domestic venture capital firms.

In sum, evidence from previous studies suggests that venture capitalists' investment philosophy and venture capital industries of Asia, Central and Eastern Europe are not necessarily equivalent to those based on the US model – the typical developed Western venture capital market. While it is true that a market-driven or capitalist state where the government generally plays a relatively smaller role in many economy aspects than the socialist or the less-developed economies, whether it does the same in venture capital

investments remains unverified in previous research. The importance of government influence to investment criteria, the inherent venture capital institutional environments and how the ownership of a venture capital firm may affect venture capitalists' decision-making behaviour have not been stressed in previous studies based on developed VC markets. The body of contradictory evidence identifies the need to further examine where similarities or dissimilarities in investment criteria of venture capitalists exist, not only between nations of the same continent (i.e. Poland, Hungary, Japan and India), but also between countries or even regions with different levels of economic development. In addition, the issue how the investment criteria of multinational venture capital firms can be compared to the local counterparts that has never been studied in previous researches, however, is an indispensable part of this field. This research pioneers to conduct massive field study on investment criteria aiming at different groups of venture capital investors operating in China. The results ultimately contribute to venture capitalists' decision-making science.

2.3 Institutional Forces on Investment Criteria

Institution theory argues that beliefs, goals, and behaviours of individuals and organisations are strongly influenced by subtle but pervasive forces in the external environment (DiMaggio and Powell 1991, Scott 1995). Institutional theory also suggests that organizations often develop in an isomorphic manner (Slack and Hinings 1994). Institutions are those structures that provide stability and meaning to social behaviours (Scott 1995). Scott (1995) identifies three principal types of institutions affecting organisational activities: normative, cognitive and regulatory, among which, he argues, normative and cognitive institutional influences are most critical to professionals. Differences in the institutional, legal and cultural environment and in dominant corporate governance systems may significantly influence the conduct of business (Hofstede 1984; Hampden-Turner and Trompenaars 1993). Professions develop isomorphic, or similar, characteristics not only within countries but also around the world (Bruton et al. 2000). The profession fabricates the principles, or guidelines for action by the professionals within the industry (Scott and Backman 1990). Further, strong trade and professional associations within the industry encourage the consistency in behaviour (Oliver 1996). The beliefs of participants about what conduct is expected in the industry affect the behaviours of later entrants (March 1981).

Further, it is argued that cultural systems varied from country to country form the institutional structures which influence organisational behaviours (Friedland and Alford 1991) and enterprise strategy (Peng 2000). In respect of the VC industry and its related intermediaries, past studies have also identified the heterogeneity of such markets across differing countries (Wright et al. 1992; Manigart et al. 1994; Sapienza et al. 1996). It is such

variations lead to the difference in the evaluation process and method of venture capitalists across countries (Manigart et al. 2000).

Fried and Hisrich (1995) argue that institutional factors have led to strong uniformity in VCs' behaviours. Fried and Hisrich (1994) also suggested that as the institutional environments vary from country to country, so does the nature of the venture capital industry. The similarities in venture capital industry between the US and Europe have been found in previous research (Sapienza et al. 1996) as culturally and historically the two regions have strong connections. However, to date the behaviour of Asian venture capitalists remain largely unexplored in academic research. Asian culture as a whole is significantly different from the two regions (Bruton et al. 2000). Separately, Asia obviously contains rich races, cultural systems and political regimes and varying degree of economic and financial markets development. Thus, it cannot be assumed that venture capital operates in Asia, as it does in the West (Bruton et al. 1999). Institutional theory would predict that the local culture should impact venture capitalists' behaviour in regions/countries with strong cultural norms. The Asian emphasis on the group may result in the venture capitalists' viewing their relationship with the CEO (chief executive officer) of the firm not as an arms-length agency relationship but as part of a relational contract (Bruton et al. 1999).

Bruton et al. (2000) in the study of the values of venture capital professionals in Asia, US and Europe, argued that all are shaped by normative institutional processes; and how those views are implemented around the world is shaped by cognitive/cultural institutional forces in the given region of the world. Asian venture capitalists despite sharing similar views on their roles, implement those roles very differently due to the emphasis on collective action in Asia (Bruton et al. 2000). Therefore it can be

argued that institutions are responsible for the difference or similarity between nations in the selection values of venture capitalists. Critically speaking, Bruton et al. (2000) pioneered to examine the behaviour of venture capital professionals across continents utilising an institutional perspective. However, the study lacks the evidence to support whether venture capitalists of different countries with varying structures of institutional developments within one single region/continent would all agree the conclusions. The verification is especially important for Asian venture capitalists as the continent contains richer cultural systems and political regimes than the US and Europe, while the study simply count on three sample from East Asia (Taiwan, Japan and South Korea). Similarly, it is worth questioning that venture capitalists in Eastern Europe would all behave like their counterparts in western European countries (UK, France and the Netherlands). In addition, the study did not specify whether the regulatory force, such as the government influence, will influence venture capitalists' investment selection behaviour while it may be critical to a country in transition, like China and India.

Studies suggest that the Chinese institutional environment differs considerably from that of the West, due to the influence of a strong socialist tradition and strong culture (Peng 2000, Boisot and Child 1996). It can be argued that the venture capital industry in China will be an outcome of its unique combination of political, economic, cultural and social institutions and the nature of the broader changes it has been undergoing during its transition from socialist central planning to a more market-based economic system. Thus institutional factors in China have been creating a venture capital industry with its own idiosyncratic characteristics.

Literature identifies a number of differences between China and the

developed VC markets. Firstly, White et al (2002) suggest that China's regulatory system affects the venture capital industry through variations in property rights, contract law and company law, tax law and foreign exchange and capital market controls. Luo (1997) argues that property rights and corporate governance are still underdeveloped in China (Luo 1997). Guo argued (2008) Venture capitalists in China are more demanding than their peers in developed countries, imposing more screening criteria as additional conditions to reduce the problems raised from the weak regulatory institutions. Consequently, some venture capitalists tend to invest in Chinese firms registered in offshore holding vehicles under foreign jurisdiction, such as Cayman Islands, Bermuda, in order to avoid constraints caused by the inefficient domestic regulatory system (Guo 2008).

Secondly, there is still no generally accepted venture capital association in China providing norms, action values and clear definitions on venture capital compared to the US, UK or other developed VC markets (Zero2IPO Research Centre 2006). Indeed, venture capital is still viewed as a tool to promote technological development and serve for national strategic goals (Zhuang 2003). Venture capital from the viewpoint of the central Chinese government is seen not simply as a means to maximise profits for investors, but overwhelmingly an important tool for connecting scientific and technological capabilities and outputs on the one hand, with national and regional/provincial economic and social development on the other (White et al. 2000). Moreover, Professional financial advisors, managers and accountants that are important for venture capital investment are extremely rare (Farrel and Grant, 2005). Consequently, investment values of venture capitalists in a state-owned venture capital firm in China greatly vary from that of foreign venture capitalists bearing the duty to maximise profits for the

good of fund investors.

Thirdly, key cognitive/cultural institutions in China are formed on the basis of Confucian codes and doctrines on social roles and clan ties that are not present in Western culture (Peng 2000). Confucian dynamism emphasises ordered relationships and the impact of shame; these characteristics, relatively less dominant in Western business practice, highlight the dominance of group-related values in China and the lower role of individualism that is so dominant in the West. Social networking (Guanxi), face value (Mianzi), and excessive concern for family, which are all deep rooted in Confucianism, carry much weight in Chinese society (Ford, 1997; Graham and Lam, 2003). Chen (2001) also suggests that such core values, including maintaining relationships or guanxi, quietly influence the cognitive/cultural rules of the Chinese society. Given the influence of such institutions, in order to engage in some transactions, an entrepreneur or enterprise must maintain good personnel connections and this may matter more than their capabilities (Boisot and Child 1996, Peng 2000).

From the perspectives of venture capitalists, guanxi, relationship or social ties are also presented in the Western context. VCs frequently seeking advice from other counterparts on a wide variety of issues is a common practice for VC professionals (Fried and Hisrich 1994). The connection and relationship among many venture capital firms often results in cooperation in monitoring of investments (Bruton, Fried and Hisrich 1998) and syndication investments of VCs (Makela and Markku 2006). Guo (2008) argued that regulatory and cognitive institutions impact nearly all aspects of foreign venture capitalists' investing activities in China, but normative institutions only matter in the project screening, based on 37 venture capitalists of 34 venture capitalist firms. In addition, based on interviews and

secondary document analysis, Feng (2004) identified the impact of institutional dynamics on the evolution of China's venture capital industry with the focus on the changes of foreign venture capitalists' investment strategies in China and the protection of property rights has a dominant impact on investing behaviour whereas the agency perspective is not as powerful in explaining FVCFs' investment strategies in China.

Further, *guanxi* is also vital for investors and venture entrepreneurs during the period of post-investment management. The effects of such direct and indirect ties may enhance the bilateral trust between investors and entrepreneurs, especially in early stage investments. For example, Shane and Cable (2002), drawing on organizational theory, argue that these ties provide an important mechanism through which information asymmetry is overcome between seed-stage investors and entrepreneurs.

At last, there are two fundamental problems confronting all venture capital exits in China. The first problem is regulatory constraints. Following Circular 75, seven Chinese government organs jointly released the "Provisions on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors" (Circular 10) on August 8, 2006, which stipulates that any foreign merger and acquisition of domestic entity are subject to rules of the "Guidance Catalogue of Foreign Investment Industries" (Article 4). To practice the "red chip" listing model, the Chinese enterprise must receive the approvals from both Ministry of Commerce (MoC) and State Administration of Foreign Exchange (SAFE) (Article 42). Moreover, the completion of the whole listing requirements and official approval application procedure needs to be met within one year following the issue of a business certificate to the JV (joint venture) or WFOE (wholly foreign-owned enterprises) (After acquisition by the offshore holding company, the domestic entity will

become a JV or WFOE). Otherwise the established shareholding structure must be aborted and return to zero (Article 45 & 49). Besides, the lack of an over-the-counter market also contributes to the low efficiency to exit through domestic IPO. China has two types of stock market: A and B. The former is traded in Chinese Yuan and the latter US dollars. A share market has averagely much higher PE (price/earning ratio) and liquidity than B share market (Zhu and Guo 2000). According to Zero2IPO Research Centre, approximate 450 private small-to-medium enterprises (SMEs) are in the queue to list on A share market by 2006. However, whether it is A or B, listing requirements are still too high for most SMEs, including many venture capital-backed private enterprises (Kang 2007). This in turn drives venture capital investors to seek liquidation through non-IPO options including merger and acquisition, trade sale or local Assets and Equity Exchanges, even though IRRs received through non-IPO options are much lower than IPOs. According to China Venture Capital Performance Report, 1994-2005 (Zero2IPO Research Centre 2006), venture capital exiting through merger and acquisition and trade sales have achieved IRR 9.45% and 15.6% respectively, much lower than those of either overseas (54.5%) or domestic (32.3%) IPO.

Previous discussion suggests that the challenges encountered by VCs and the nature of the investment framework employed in China differs significantly from that of the West as a result of the divergence in institutional forces. The differences may lead to the alternative belief that VCs will adapt themselves to the local institutional environments making some changes in the process and creating a different application of selection standards of venture capital (Bruton et al. 1999). However, how the divergence in institutional environments will influence VCs by country, in

contrast to the study by Bruton et al. (2000), and in turn their investment criteria have never been further examined.

The first goal of this study is to critically review the fitness of broadly accepted investment criteria based on developed VC markets in China by many accredited studies and understand whether investment criteria used may vary with the ownership structure or funding sources of venture capital firms, while there is still very limited evidence so far comparing evaluation approaches used by VCs in different countries and within one single country.

Past literature has recognised that heterogeneity of institutional forces across countries (Friedland and Alford 1991, Wright et al. 1992, Manigart et al. 1994, Sapienza et al. 1996, Boisot and Child 1996, Peng 2000, Manigart et al. 2000). Such variation leads to the difference in the nature of venture capital industry (Fried and Hisrich 1994). Further, Bruton et al. (2000) argued that the values of venture capitalists are shaped by normative institutional processes; and how those views are implemented around the world is shaped by cognitive/cultural institutional forces in the given region of the world based on small samples across Asia, Europe and the US. However, their conclusions have not been verified in China and those many emerging VC markets. Being the largest transition economy in the 21st century, China has attracted the most FDI (foreign direct investments, including foreign venture capitals) in the past 10 years among all developing countries (World Investment Report 2007). In this context, its venture capital industry is also mixed of evolving Chinese and Western practices (Kang 2007). To study an emerging venture capital market, the researcher hence suggests it is of priority to distinguish the diverse nature of venture capital firms based on their funding sources, as the selection values of venture capitalists cannot be

assumed the same between venture capital firms of different origins.

This study will first examine what entry strategies foreign venture capitals adopted into the mainland in order to secure their interests. The researcher will also examine how selection criteria of different types of VCs is influenced by a mix of institutional forces (using China as a case example) and empirically establish the importance of such forces on VCs' investment criteria. Findings of this study are compared to each other according to the funding sources/ownership structure of venture capital firm and broadly accepted investment criteria.

In addition, the current literature on venture capital generally assumes a strong institutional environment: secure property rights, mature market intermediate institutions, friendly government regulations, and an independent judicial system. However, these conditions are normally not satisfied in developing or transition countries. As a result, the study expects to establish that the difference in investment criteria cannot be simply explained by one single factor like region, cultural tradition, political regime or the level of economic development.

Further, previous studies did not verify whether foreign/multinational venture capital investors will revise their investment criteria used in their home countries (generally developed VC markets) to adapt to emerging markets, such as China. The body of contradictory evidence suggests the need to further examine where similarities or dissimilarities in investment criteria of venture capitalists exist, not only between nations of the same continent (i.e. Poland, Hungary, Japan and India), but also between countries or even regions with different levels of economic development. Further, the issue how the investment criteria of foreign/multinational venture capital firms can be compared to the local counterparts that has never been studied

in previous researches, however, is an indispensable part of this field. This research pioneers to conduct massive field study on investment criteria aiming at different groups of venture capital investors operating in China. Therefore the results ultimately contribute to venture capitalists' decision-making science.

At last, the study only focuses on China and hence hopes to draw forth continued research on other countries in the future and hence expand the body of knowledge.

Chapter 3 Research Design and Methodology

3.1 Introduction and Choice of Methodology

3.1.1 Introduction

Research methodology can be generally categorized into two types. One is quantitative research and the other is qualitative research. Hammersley identified (1996) general points of the difference between the two and which are:

- The tendency for theory to come prior to data collection in quantitative research (hypothetical-deduction) and to be an emergent property of qualitative research (analytical induction);
- The tendency for quantitative researchers to seek generalisable findings (scientific laws) and for qualitative researchers to emphasize contextual understanding.

Bryman and Burgess (1999) generalised the core characteristics of qualitative research and suggested that qualitative research is a strategy of social research which deploys methods and displays a preference for: the interpretation of social phenomena from the point of view of the meanings employed by the people being studied; the deployment of natural rather than artificial settings for the collection of data, and generating rather than testing theory. Compared to qualitative research, the strengths and weakness of quantitative approaches are analysed. Quantitative research is also described by the terms “empiricism” (Leach 1990) and “positivism” (Duffy 1985). Quantitative methods describes, tests and examines cause and effect relationships between variables (Burns and Grove 1987), using a deductive

process of knowledge elicitation (Duffy 1985). The research processes used in the quantitative approach include descriptive, correlational, quasi-experimental and experimental research (Cormack 1991). The strengths of such methods is that both true experiments and quasi-experiments provide sufficient information about the relationship between the variables under investigation to enable prediction and control over future outcomes (Duangtip 2009). This relies on the ability of the researcher to manipulate an independent variable in order to study its effects on the dependent variable.

Researchers employing quantitative methods test theory deductively from existing knowledge, through developing hypothesized relationships and proposed outcomes for study, while qualitative researchers are guided by certain perspectives, ideas, hunch regarding the actors to be investigated (Cormack 1991). The investigator's role in a quantitative study is detached and objective in order to understand the facts (Duffy 1986). Researchers collect information through postal questionnaires. Even in interview surveys, contacts are not the main source to solicit information. In fact, interviews are carried out by hired staffs (Bryman 1988). Such a detached solicitation skills of information can generally greatly increase the objectivity of study. However, some argued that such strength is the weakness of quantitative approach, especially where organisational research is concerned (Duangtip 2009), as it ignores the experiences of the subjects and regards human beings as merely reacting and responding to the environment (Cormack 1991). This causes difficulties in organisational research, because organisation uses an holistic view of people and their environment (Duangtip 2009) and according to Briones and Cecchini (1991), quantitative approaches do not permit this approach.

In contrast, in a qualitative research, theory is developed inductively. Researchers interpret and describe in the language employed during the research process (Leach 1990), while findings are not intended to be quantified or presented in numerical data. Therefore the investigator has to establish a closer relationship with the subjects than that in a quantitative research. More importantly, subjects' perspective is the target to be investigated, not the researcher (Duffy 1987), because the aim of a qualitative research is to describe certain aspects of a social phenomenon in which the subjects' viewpoints matter to it. This methodology is also termed as phenomenology (Duffy 1985) or as a humanistic and idealistic approach (Leach 1990). However, the presence of the investigator and the relationship between the investigator and the subjects may distort findings and damage objectivity.

In addition, in a quantitative research, it demands random selection of the sample from the study population and the random assignment of the samples to the various study groups (Duffy 1985). The advantage of results obtained from random sampling is that the likelihood to generalise findings is increased, while the weakness of a random selection is time-consuming with the result that many researches use more easily obtained opportunistic sample (Duffy 1985). Especially, if the sample is too small, the possibility to generalise findings is prohibited. On the contrary, a qualitative research usually employs a small and selective sample (Cormack 1991) due to the in-depth nature that is required by the study. Therefore the weakness of a qualitative research is that the researcher could have been influenced by a particular predisposition, affecting the generalisability of the small scale study (Bryman 1988) and the population validity is hence influenced.

However, when the sample is well defined, the generalisation can be greatly validated.

Moreover, the reliability of a quantitative study is often regarded as more reliable than that of a qualitative research. The reason why is that quantitative methods aims to control or eliminate extraneous variables within the internal structure of the structure of the study, and the data produced can also be assessed by standardised testing (Duffy 1985). Besides, the weakness in quantitative research is that the more tightly controlled study, the more difficult it becomes to confirm that the research situation is like real life (Duangtip 2009). The more similar the research experiment is to the natural setting the greater is the validity and thus generalisability of the finding (Campell and Stanley 1963). In contrast, the subjects in a qualitative study are studies in their natural setting and encounter fewer controlling factors (Sandelowski 1986), therefore there are fewer threats to external validity.

3.1.2 Choice of Methodology

The choice of methodology in this study is determined by the nature of this research and the pragmatic considerations, especially the access to venture capitalists and research data. The manifold methods to investigate VCs' investment criteria described in the Table 2.2 can be divided into two types: post-hoc methods and real-time methods. Studies used post-hoc research methods (see Tyebjee and Bruno 1981, 1984; Bruno and Tyebjee 1985; Gorman and Sahlman 1986; MacMillan, Siegel and SubbaNarasimha 1985; MacMillan, Zemann, and SubbaNarasimha 1987; Kahn 1987) employing

traditional ways of interviews and/or surveys, may be subject to post-hoc rationalisation and recall biases as people are poor at introspection (Huber and Power 1985; Golden 1992; Sandberg et al. 1987; Shepherd and Zacharakis 1998). Post-hoc methods typically ask VCs to list and rank decision criteria based on their assumed outcomes on the investment decision (Sandberg et al. 1987). Data collected were often further analysed with a variety of statistical methods, such as factor analysis and cluster analysis. Problems are associated with retrospective reports because decision maker may be motivated to bias the results (March and Feldman 1981), report their “espoused” rather than “in-use” investment criteria (Shepherd 1999) as well as possible cognitive and perceptual limitations (Fischhoff 1982). In addition, factor analysis was often used in these studies but it is not appropriate to investigate VCs’ investment criteria when the sample is small (Mark 2008), while qualitative methods are based on in-depth study of simply one or a few entities (Briskman 1966; Driscoll 1974; Roberts 1991; Silva 2004) in order to presents us a profile of the VC firm’s operation. They both are limited to the size of sample to generate meaningful conclusions.

Therefore later studies began to adopt real-time methods, such as additive utility models (e.g. conjoint analysis) (see Riquelme and Rickards 1992; Muzyka et al. 1996; Zacharakis et al. 1998; Shepherd et al. 1998; Shepherd 1999; Shepherd and Zacharakis 1999; Zacharakis and Meyer 2000; Zacharakis and Shepherd 2001; Shepherd et al. 2003; Bart et al. 2005) and verbal protocol method (see Sandberg et al. 1988; Hall and Hofer 1993), to investigate VCs’ investment criteria. Sandberg et al. (1988) suggested that verbal protocol analysis is a real-time experiments which require VCs to “think aloud” as business proposals are being evaluated. Hall and Hofer (1993) suggest that the verbal protocol method elicit richer knowledge and

understanding of the decision making process while post-hoc methods only focus on the results. However, the problem associated with the verbal expression (to “think aloud”) of knowledge is still a difficult task for experts (Patel and D’Souza 2008). Riquelme and Rickards (1992) criticised that the verbal protocol method is more than an “art” than a science while conjoint analysis is more appropriate for the evaluation of VCs’ investment criteria. In addition, the analysis and interpretation involved in verbal protocol techniques without being aided with other techniques, such as computer algorithms, are likely to be subjective (Cooke and McDonald 1987; Riquelme and Rickards 1992).

The quantitative approach - conjoint analysis has been used in many fields in relation to decision making science, especially in marketing where it has accumulated a strong tradition (Steward 1988, Green and Srinivasan 1990). Conjoint analysis is a general term referring to a technique that requires respondents to make a series of judgments, based on profiles, from which their “captured” decision processes can be decomposed into its underlying structures i.e. the attributes’ significance in the judgment, how these attributes affect the judgment and the relative importance of each attribute in the decision process (Shepherd and Zacharakis 1999). Riquelme and Rickards (1992) was the first research, to the researcher’s knowledge, applying conjoint analysis to examine VCs’ investment criteria, which allows the investigation of what Argyris and Schon (1974) refer to as theories “in use” in contrast to “espoused” theories of action. Conjoint analysis has its unparalleled advantage over other methods and therefore is also adopted in this research.

This research employs both qualitative and quantitative methods to answer the research questions of the study. Since that empirical research on

venture capitals in China and the investment strategies of foreign venture capitals are rare, and theory development in many areas has not been able to elaborate scale development, this study tries to explore a number of novel theoretical constructs, and hence is regarded as an exploratory research. A qualitative approach - grounded theory method is adopted to distinguish the various entry strategies of foreign venture capitals and to examine the nature of venture capital firms operating in China in order to provide a precise categorisation of venture capital firms operating in China. Regarding the exploration of in-use investment criteria, quantitative approaches - Analytic Hierarchy Process (AHP), Delphi approach and Conjoint Analysis are jointly applied to investigate the investment criteria of venture capital firms. The evaluation approach consists of two levels of investment criteria and their measurement scales shown as Appendix I. Specifically, AHP and Delphi approaches are jointly used to discriminate the relative importance of first-tier (generic) investment criteria while conjoint analysis is to identify the values of second-tier (subordinate) investment criteria under their respective generic category.

There are two reasons for applying multiple methods in this study. The first reason is to reduce the difficulty in conducting questionnaire survey when applying conjoint analysis; 26 evaluation attributes (second-tier investment criteria) are generated from the three resources – conclusion of past studies, pilot study concluding five venture capitalists representing four different incorporation forms of venture capital firms operating in China and suggestion of the researcher, each having 2 to three levels, resulting in 226 combinations (profiles) produced for testing. With the adoption of both AHP approach and conjoint analysis, comparisons of profiles can be reduced to a manageable level. The second reason is to reduce the probability of

misinterpretation and generate a saturated analysis on each level of investment criteria. The Delphi approach can assist in both the generation of an initial set of first-tier investment criteria for further testing from the pilot study and the summarization of conclusions when applying AHP approach.

This research forwards the proposition that venture capital firms operating in China are diverse in nature of ownership and that research results on the effects of ownership on entry strategies and investment processes cannot be interpreted without a proper classification of these venture capital firms. Therefore this study will first attempt to classify venture capital firms according to their diverse ownership structure.

As a venture capital practitioner in China, the researcher agrees the conclusion generated from previous studies that China has the institutional environments that are entirely different from the US where the venture capital selection value is originated. The researcher also believes that these variances will drive all venture capitalists operating in China to amend their original decision making criteria in order to adapt to local environments. Therefore the study will identify what unique factors affect accept/reject funding decisions of venture capitalists (VCs) operating in mainland China. The integration of unique Chinese factors affecting investment decisions will help examine the applicability of the US model to transition economies and to China in particular and explain the difference and similarities. Next, this study will examine how broadly accepted investment criteria are reshaped by these identified unique China factors compared to those based on developed VC markets and how they affect the entry strategies of foreign venture capital investors into China. At last, this study will distinguish what investment criteria are used by VCs in China and the relative importance of

these investment criteria to the accept/reject decision of VCs. Results will also be compared to those discovered in the US and other transition economies.

3.2 Grounded Theory Approach

3.2.1 Misconception of Traditional Venture Capital Classification

The researcher suggests that the literature cannot be ignored if the target research area is located in well-tilled soil. China's venture capital industry and the approach by which venture capitalists evaluate ventures are emerging territory for researchers in recent years; with particular reference to the diverse nature of venture capitalists operating in China, their funding sources and their ownership structures.

As a venture capital practitioner in Taiwan before this study, the researcher was interested in probing whether there are differences and/or similarities between diverse venture capital types in terms of ownership and funding source when the research questions were initially formulated. More specifically, it became important from the researcher's perspective to identify the relationship between VCs' investment criteria and their funding source or ownership. To answer this question, the research should be able to provide a clear category and definition of all venture capitals operating in China.

Particularly, the study seeks to contribute to the gap in understanding on how foreign venture capitalists enter a developing country, such as China. Without such a clear understanding on entry strategy, a well-defined categorization of venture capitalists operating in China and a related understanding of their particular investment criteria would end in generality or mere fable. Extant research to date has contributed little to this area, while studies on developed countries, such as Poland (Bliss 1999) and Hungary (Karsai et al 1997), have not based their conclusions on a clearly defined categorization of venture capitals operating in these respective countries. Therefore it is worth questioning whether the broadly accepted investment criteria based on the US, for example, will be applicable to a US venture

capital fund operating in China or a Chinese venture capital fund operating in the US. By contrast, this research immerses itself in studying the phenomenon using grounded study before any conclusion can be made.

Without a proper classification and understanding of the nature of various venture capital firms operating in China, an in-depth study on any issue of China's venture capital industry will not be feasible. It would ignore the diverse nature of casual relationship between VCs' selection values and fund investors. Traditional methods simply divide venture capital firms operating in China into two types: foreign venture capital firms and Chinese venture capital firms (CVC) (White et al. 2002, Zeng 2004, Guo 2008), or generally offer no classification. Even Chinese official publications on the statistics of Chinese venture capital industry, such as "Venture Capital Development in China 2004" published by Ministry of Science of Technology (MoST), have been dogmatic in classifying Chinese venture capital firms into foreign-invested venture capital enterprises (FIVCEs) and Chinese-owned venture capital enterprises (COVCEs) simply relying on the criteria whether they are from overseas or not.

The Chinese government, unlike most of its counterparts in developed countries, has played an active role in the venture capital industry through forming favourable policies and directly pooling money to establish investment companies or into its investment arms. These government-initiated venture capital organizations are usually founded for the fulfilment of local or central governments' objectives and managed by local management team recruited from security houses, banks or even government officers, rather than venture capital professionals. Affiliated SOEs or listed Chinese companies are often invited to jointly invest in these venture capital firms holding minority positions. In comparison, in a

private-owned venture capital firm comprised of mixed Chinese investors where the government holds either a minority stake or no interest, venture capitalists may show more discretion in investment decision-makings than that involving more government interest. Therefore it is reasonable to suggest if a venture capital firm is solely comprised of private Chinese investors, it is likely that the casual relationship between the investment criteria of venture capitalists and the funding sources will be different from a venture capital firm with sole government participation. Consequently, it is necessary to subdivide the Chinese venture capital firms into separate categories that represent different casual relationship between decision-making behaviours of venture capitalists and fund investors. The key element to ensure a valid categorisation of Chinese venture capital firms is to generate sufficient data on the share of government ownership and the extent of government influence over the decision making of venture capitalists. This problem can be solved if one can access their financial statements and obtain relevant and open feedback from a large sample of venture capitalists in these firms. The researcher is responsible for the Zero2IPO Research Centre where it periodically collects such data from over 90% of venture capital firms operating in China.

The classification of foreign venture capitals is rather complex. Foreign venture capital firms/funds have adopted various strategies to maximise their interests and decrease potential risks in China since the first foreign venture capital fund – IDGVC entered China in 1987. Various entry strategies have appeared in the incorporation forms of venture capital funds and roles of foreign venture capitals play in the venture capital organization. For example, in some Sino-foreign joint venture capital firms, where the foreign partners have fewer shares of holdings than their Chinese partners, they are

granted the power to manage the funds under predetermined conditions (Kang 2007). The role of the Chinese investor is similar to a limited partner (LP) with the foreign partner a general partner (GP) under this model. In some extreme case where the Chinese investor put up their foreign reserves into a venture capital fund registered offshore (disguised as foreign venture capital fund into China market, e.g. the Legend capital), they are exempted from the foreign venture capital grouping in order to seal in the polytonality of Chinese venture capital firms. The main reason to disguise itself as a foreign investor is to avoid strict domestic jurisdiction in capital flows and foreign exchange controls which are not common in other developed markets (Kang 2007). The selection process and criteria of foreign venture capitalists investing in China may be similar to those used in their home markets.

In addition, some Sino-foreign joint venture capital firms are co-initiated by the Chinese government and foreign governments with both political and economic purposes, such as the Sino-Swiss Partnership Fund. Their management style and investment values may be totally different from other joint venture capital firms.

The above discussion points out the complex nature of venture capital firms operating in China. Investment criteria of venture capitalists may be strongly influenced by the ownership structure. Therefore it is of priority to distinguish and categorise venture capital firms operating in China before further examination can proceed. One purpose of this study is to provide later studies an appropriate categorisation on China venture capital firms and enlighten the importance of classification of venture capitals studying transition economies.

3.2.2 Adaptability of Grounded Theory Approach

Grounded theory is identified as one of the family of qualitative research methods appropriate for outlining a set of essential qualities of complex social phenomena (Dougherty 2002). A grounded theory approach is the theoretical underpinning to design the research, in which in-depth interviews and fieldwork observations are adopted (Glaser and Strauss 1967; Sofaer 1999; Strauss and Corbin 1998). Glaser et al. (1967) suggest that grounded theory is applied when a researcher does not begin a project with a preconceived theory in mind, but rather with an area of study where theory is allowed to emerge from the data. Grounded theory is thus a research method that aims at presenting new theories that result from a thorough analysis of empirical materials (Glaser and Strauss 1967; Strauss and Corbin 1994, 1998; Dougherty 2002). In comparison, case study is viewed as a choice of object of study, and not a research method per se, although it is often used as a general euphemism for qualitative research (Yin 1984).

As Martin and Turner (1986) stressed, grounded theory is best used when no explicit hypotheses exist to be tested, or when such hypotheses do exist but are too abstract to be tested in a logical, deductive manner. This is where grounded theory is most appropriate-where researchers have an interesting phenomenon without explanation and from which they seek to “discover theory from data” (Glaser and Strauss 1967). Therefore, (the researcher realized that) to adopt grounded theory is not to test hypothesis, either overtly or unconsciously, but observe directly. That was the reason why the researcher left for China to directly contact China venture capitalists between 2004 and 2008 in order to achieve such an ideal. In addition, although the researcher was not native speaker and unfamiliar with China venture capital industry, the researcher may still be influenced by preexisting

conceptualizations of career training during the days in Taiwan. Therefore, the researcher had been deliberately kept the attitude and capacity to make “familiar strange” (Spindler and Spindler 1982) from the beginning.

In addition, a successful grounded theory research has a clear creative component (Roy 2006). In order to answer the original research questions, the researcher made substantial efforts to interpret at each stage of coding and deliberately made key decisions about which categories to focus on and where to collect the next iteration of data, while avoiding the rigid application of grounded theory techniques. Such implementation is termed by Glaser (1978) as “theoretical sensitivity” to describe the essential tension between the mechanical application of technique and the significance of interpretive insight.

This research adopting grounded theory is built upon two key concepts: constant comparison, in which data are collected and analyzed simultaneously, and “theoretical sampling”, in which decisions about which data should be collected by the theory that is being constructed (Glaser and Strauss 1967). Therefore it can be distinguished from phenomenology, which attempts to capture the rich detail of interviewees’ live experiences. Phenomenologists often present data in relatively raw format to demonstrate their authenticity and to permit a holistic interpretation of the subjects’ understanding of experience (Roy 2006). In a typical phenomenological study, in-depth interview is the major means of probing interviewees’ subjective experiences (Wimpenny and Gass 2000), while in-depth interview is a means of eliciting information on the targeted area of study in our grounded theory approach. The purpose is to move from relatively superficial observations to more abstract theoretical categories (Roy 2006). This is achieved by the constant interplay and the manipulation of coding techniques between data

collection and analysis. In our grounded theory approach, the researcher continued to collect data until no new evidence appears. This process is called “category saturation” and is one of the primary means of verification in grounded theory (Strauss and Corbin, 1988).

The most important question employing grounded theory is when to capture the precise signals of saturation. According to Glaser and Strauss (1967), saturation is a practical outcome of a researcher’s assessment of the quality and rigour of an emerging theoretical model: The criteria for determining saturation are a combination of the empirical limits of the data, the integration and density of the theory and the analyst’s theoretical sensitivity. Pragmatically, the researcher captured the signals of saturation in this study including the repetition of some specific information and confirmation of existing repetition of information and confirmation of existing conceptual categories. In our grounded theory approach, the final identified categories were also presented to subjects for their validation.

3.2.3 Grounding process

Interviews are one of the most intensively used methods of data collection (Bryman and Burgess 1999). In qualitative research, there are three major categories identified as “the family of qualitative interviews”: the structured (formal, standardized) interview, the non-directed (informal, unstandardised interview, and semi-structured (semi-standardized) interview (Berg 2000). The individual in-depth interviews which the researcher conducted are face-to-face and semi-structured in nature, which is one of the most common approaches to interviewing in qualitative research (Bryman and Burgess 1999). This type of interview involves the implementation of a number of predetermined interview guidelines.

This study employs the replication logic to investigate the entry modes of foreign venture capital. This method is broadly consistent with a grounded theory approach to data gathering, analysis and interpretation (Glaser and Strauss 1967; Strauss and Corbin 1990). Fried and Hisrich (1994) used a similar method in examining venture capital decision making in the US.

Interviews with venture capitalists in this study were guided by the interview guidelines (see Appendix II), containing open-ended questions and were tape-recorded for transcription, from which a list of domains of study was generated. Totally 65 venture capitalists, out of 124, participated in Part II of the Interview Guideline, as shown in Appendix II, were asked "How do they invest in China?" before they were categorized as FVCFs or SJVCFs. All individual interviewees are face-to-face and lasted on between one hour and two hours. These questions are typically asked of each interviewee in a systematic and consistent order, but the interviewer are allowed freedom to digress. That is, by using opened questions and both planned and unplanned prompts, the interviewers are permitted to probe far beyond the answers to their prepared and standardised questions (Berg 2000). Khera et al. (2001) indicated that such semi-structured interviews allow the respondents to determine the direction and content of the interview within a broader framework provided by the interviewer.

Considering the very limited time that venture capitalists are willing to spend in the interviews, even though the researcher can take advantage of his "guanxi" during the post as their peer at Zero2IPO, the questions are structured serially and condensed to a relatively comfortable level to interviewees. Interview guidelines were divided into two main categories: "About the Venture Capital Firm" and "How does your firm/fund invest in

China?” and the later is divided into seven respective subsequent questions as themes for coding. Such structured interviews allowed more systematic and strategic data analysis later on. Besides, given the fact that China is identified in this study as a unique context for venture capital activity and there has been no established study concerning the entry modes of foreign venture capitals into China, this study cannot compare the insights provided by the first interviewee with previous findings. Therefore, seven essential themes, as shown in Appendix II, were pre-determined by the researcher, and they are:

- Do you have an offshore vehicle? If Yes, where is the offshore vehicle?
- Do you manage the fund yourself? If no, who manage it for you? Please describe in details how they manage it for you.
- Do you manage the fund for other venture capitals? If yes, who do you manage it for? Please describe in details how you manage it for them.
- Please describe in details how you invest in China from deal origination to closing.
- How is the decision-making committee structured? Or what is the decision-making mechanism?
- How do you manage the portfolio? What value-added activities do you provide to portfolio companies?
- How do you exit?

The perceptions supplied by the first interviewee were viewed as a basic model and presented to the next interviewee for validation, and the framework was updated as necessary as the research progressed. All the

interviews were taped-recorded and transcribed into verbatim transcripts. In addition, content analysis was used to analyze the verbatim transcripts into different themes, as an abundance of transcripts were used. Transcripts and field notes were reviewed line by line and generated into themes by the researcher and three part-time MBA students hired from Beijing University, guided and reviewed by the researcher. Initial findings were sent to a 38 venture capitalists randomly selected from each category of venture capitals operating in China for further validation.

By using thematic analysis, the interview data can be parsed into information-rich quotations that were ultimately placed into thematic categories. Data were therefore categorized and important concepts pertaining to themes were emergent. The researcher also utilised the “open coding” analytic techniques to categorise data and gradually important concepts pertaining to themes were emergent.

Moreover, in order to clarify missing points or confirm some key concepts, follow-up questions were asked by the researcher generally via telephone or email, but few were through face-to-face interviews. Repeating the course, data was condensed and made systematically comparable and a consistent picture of entry strategy of foreign venture capitals into China began to develop.

The final results were present to respondents themselves in order to secure validity. In addition, “trustworthiness” should be a criterion of good qualitative research (Bryman and Burgess 1999). Therefore, to assure the trustworthiness and authenticity of our thematic analysis approach, the researcher asked one of the hired MBA students (the new Coder) to re-code the interviews. The new Coder thoroughly reviewed all tapes and transcripts and selected all statements pertaining to the themes. The new Coder

reviewed each statement to assess whether the statement reflects the relevant themes. Any disagreement about the selection of statements was discussed until consensus was reached. In addition, the researcher also adopted Bryman and Burgess's (1999) suggestion to ask informants for checking the credibility of our interpretation. At last, the reliability of statement was increased by the use of semi-structured interview involving very specific prompts, which facilitate the abstraction of relevant statements.

In addition, foreign venture capitals (excluding the capitals invested by Sino-foreign joint venture capitals) investing in China together account for 79% of total investment volume in 2007 (Zero2IPO China Venture Capital Annual Report 2007). These foreign investors come from the US, UK, France, Germany, Japan, Taiwan, Israel, South Korea, etc., with different incentives, entry and exit strategies. However, they commonly face regulatory restrains in foreign exchange translation and control over capitals flowing outbound as well as the lack of confidence in the consistency of China policy-execution (Zero2IPO Research Centre 2008, Kang 2007), which may drive them utilise various means to overcome these difficulties to gain their exposure in China. The researcher considered it is a very unique Chinese factor that may significantly affect the investment values of venture capitalists. Therefore the researcher also took field notes, focusing on the complex and important issues, including "How foreign venture capitals structure their investment shareholding structure?", "Why foreign venture capitals consider co-initiating joint venture capital funds with local partners, or why not?", "Who the co-investors of the Sino-foreign joint venture capital funds are? How the fund is managed, and by who?", "How they help Chinese investees structure and list overseas, and why?", etc. This is especially essential to rule out the possibility of misinterpretation and generalise their ideas. Without a

clear understanding of these issues, it is unlikely to generalise meaningful conclusions.

3.3 AHP Method for First-tier Criteria

3.3.1 Introduction

The Analytic Hierarchy Process (AHP) approach was first introduced by Thomas. L. Saaty in the 1970s (Saaty 1977, 1980). AHP is a multiple criteria decision-making method combining quantitative and qualitative analysis and simulates how human being solves a problem with the process of decomposition, comparison and conclusion (Saaty 1980). In the typical AHP, the decision maker is first asked to establish a hierarchy with at least two levels for evaluating candidate alternatives. Each level includes many competing criteria, each of which is assumed to be linearly independent from one to another. Second, the decision maker should subjectively make pair-wise comparison matrixes for their relative importance to the criterion of the upper level and give scores from one to nine, each of which should pass the consistent test. Third, the decision maker is supposed to judge the relative importance (weight) among many competing criteria in each level and finally the hierarchical additive weighing method is used to find the priority of each alternative.

3.3.2 Process of Applying AHP Approach

To establish the AHP hierarchy is to discompose our target problem into different dimensions, then each dimension into more subordinate pieces until all factors are independently presented (Saaty 1980). The AHP hierarchy for decision making can be illustrated as Figure 3.1 (Saaty 1980). In this study, the number of subordinate factors to each respective dominant factor was controlled less than nine in order to reduce the difficulty making pair-wise comparisons and remaining judgment consistency. This is also stressed by Saaty (1980).

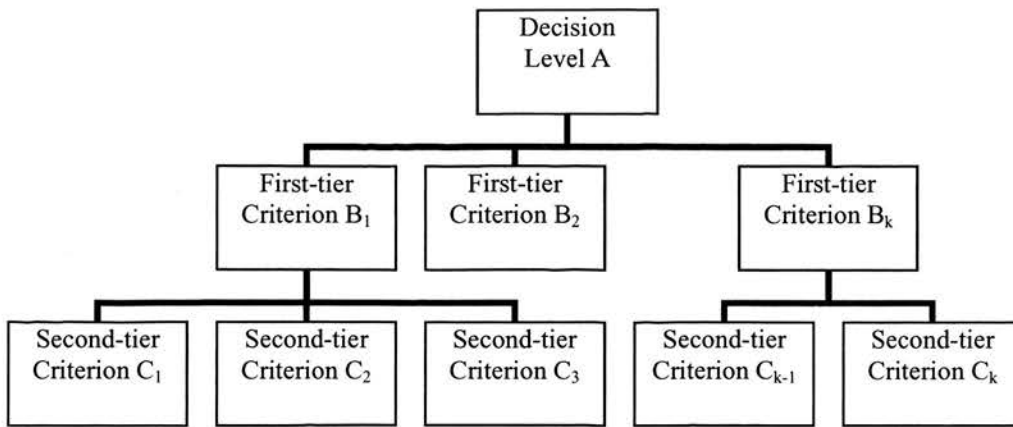


Figure 3.1 AHP Hierarchy of Decision Making

Principal eigenvector of the pair-wise comparison matrix derived from the scaling ratios is used to find the relative importance among the criteria of the hierarchy system. The AHP uses pair-wise comparisons to compare n elements under given conditions and then convert initial verbal response into a 9-point linguistic scale. Paired comparisons are based on standardised evaluation scheme with 1 = equal importance, 3 = weak importance, 5 = essential importance, 7 = demonstrated importance, 9 = absolute importance, exhibited as Table 3.1. The results of the pair-wise comparisons are used to construct a judgement matrix, and then the normalised eigenvector corresponding to maximum eigenvalue (λ_{\max}) can be calculated.

Table 3.1 Scale Definition of AHP Method

Scaling	Definition	Summary of Evaluator's Experience and Judgment
1	Equal Importance	Two options have same contributions.
3	Weak Importance	One of the two options is moderately favoured over the other.
5	Essential Importance	One of the two options is strongly favoured

		over the other.
7	Demonstrated Importance	One of the two options is very strongly favoured over the other.
9	Absolute Importance	One of the two options is extremely favoured over the other.
2, 4, 6, 8	Intermediate Value	When compromise is needed.

To calculate the relative importance of C1, C2, ..., Cn to Bs of the upper level, factors of level C are compared in pairs, shown as the following matrix:

$$B = \begin{bmatrix} c_{11} & c_{12} & \cdots & c_{1n} \\ c_{21} & c_{22} & \cdots & c_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ c_{n1} & c_{n2} & \cdots & c_{nn} \end{bmatrix}$$

A consistent judgment matrix B should have the following characteristics:

- ① $c_{ii}=1$
- ② $c_{ij}=1/ c_{ji}$
- ③ $c_{ij}= c_{ik} / c_{jk}$ (i, j, k=1, 2, ...n)

AHP method does not pursue absolute consistency but “closeness” to consistency i.e. the results should meet basic requirements on consistency. In addition, with the scale definition and decision-making hierarchy, Product and Root method are used to calculate the relative importance (weights) of subordinate factors to the dominate (upper level) factor. The calculation steps

are stated as follows:

1. Multiply each factor in judgment matrix B by column to get a column vector B₁;
2. Calculate the square-root of each factor in B₁ and get the square-root column vector B₂;
3. Normalise B₂ and get the weights of each factor

The process can be represented by the formula below:

$$w_i = \frac{(\prod_{j=1}^n c_{ij})^{1/n}}{\sum_{j=1}^n (\prod_{j=1}^n c_{kj})^{1/n}} \quad (i, j, k = 1, 2, \dots, n)$$

Suppose there is a set of n criteria in pairs according to their relative weight (importance) scaling. Denote the criteria by c_1, c_2, \dots, c_n and their weights by w_1, w_2, \dots, w_n . If $\mathbf{w} = (w_1, w_2, \dots, w_n)^t$ is given, a matrix **A** of the following equation can represent the pair-wise comparisons.

$$(\mathbf{A} - \lambda_{\max} I) \mathbf{w} = 0$$

Where **A** is the matrix of the pair-wise comparison value derived from the intuitive judgments. Then we can find the eigenvector \mathbf{w} with its λ_{\max} .

which satisfies $Aw = \lambda_{\max} w$. It has been shown that people usually judge with a certain degree of inconsistency. Saaty (1980) used the consistency index (C.I.) as an indicator of “closeness” to consistency, that is

$$C.I. = (\lambda_{\max} - n)/(n-1)$$

As the larger the number of n the more difficult to arrive at consistency of the judgment matrix, Saaty (1980) suggested to use R.I. (random index of various kinds of scale system) to revise C.I. The values of R.I. are shown as Table 3.2 for n = 1 to 15:

Table 3.2 Values of R.I. (for n=1 to 15)

n	1	2	3	4	5	6	7
R.I.	0.0000	0.0000	0.5149	0.8931	1.1185	1.2494	1.3450
n	8	9	10	11	12	13	14
R.I.	1.4200	1.4616	1.4874	1.5156	1.5405	1.5583	1.5779

where $n < 3$, judgment matrix is consistent;

Or $n \geq 3$, $C.R. (consistency\ ratio) = C.I. / R.I.$;

And the judgment matrix is consistent when $C.R. < 0.10$, otherwise the judgment matrix should be rebuilt. The derived value is zero if the evaluator’s judgment is totally consistent or one if inconsistent. The value of λ_{\max} can be accepted if C. I. is not greater than 0.1.

Take the calculation process for the group FVCFs (foreign venture

capital funds) as an example, the computation results shows:

$$\lambda_{\max} = 10.12, \text{ which satisfies } A\mathbf{w} = \lambda_{\max} \mathbf{w}.$$

The normalised eigenvectors $\mathbf{w} = (26.26\%, 12.61\%, 10.06\%, 10.47\%, 26.74\%, 5.05\%, 4.14\%, 3.61\%, 1.06\%)$

Moreover, C. I. is used to examine the consistency of the judgment matrix, where $C.I. = (\lambda_{\max} - n)/(n-1)$. R.I. is used to revise C.I, calculated as follows:

$$C.R. = C.I. / R.I. = \frac{\lambda_{\max} - n}{RI(n - 1)} = \frac{10.12 - 9}{1.4616(9 - 1)} = 0.09545 < 0.10$$

Therefore the matrix can be trusted as judgment consistency. (Please also refer to Table 4.2 which illustrates the results of judgement matrix of group FVCFs)

3.4 Delphi Approach

3.4.1 Introduction

The objective of Delphi applications is the reliable and creative exploration of ideas or the production of suitable information for decision making (Cornish 1977). It has been widely used to generate forecasts in technology, education and other fields in decision science. The Delphi method has been developed in order to make discussion between experts possible without permitting a certain social interactive behaviour as happens during a normal group discussion and hampers opinion forming (Wissema 1982). In fact, decision-makers usually have to rely on their own intuition or on expert opinion (Baldwin 1975). The Delphi method is based on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback (Adler and Ziglio 1996). Specifically, it comprises rounds (a series) of questionnaires sent either by mail or via computerised systems, to a group of experts which represents a certain set percentage of the original sample. These questionnaires are designed to elicit and develop individual responses to the problems posed and to enable the experts to refine their views as the group's work progresses in accordance with the assigned task. The main point behind the Delphi method is to overcome the disadvantages of conventional committee action. Therefore Delphi represents a useful communication device amongst a group of experts and facilitates the formation of a group judgment (Helmer 1977).

This study follows typical Delphi process which includes three key points: (1) structuring the ways of communication, (2) feedback to the participants, and (3) anonymity for the participants. Apparently, these traits may provide distinct advantages over the traditional face-to-face conference

as a communication tool. The final conclusions generated in this study are the results saturated through the repeated process of inquiries and feedbacks; therefore they are trustworthy and representative. Further, the interactions among participants are controlled by the researcher (Martino 1978). The common problems of group dynamics are hence managed, controlled and potentially bypassed.

3.4.2 Steps to Conduct Delphi Method

Delphi method is adopted to conclude the statistical results derived from AHP approach. The most important issue in the Delphi process is the understanding of the aim by all participants comprised by a group of experts no more than 20 (Delbecq et al 1975). Otherwise the participants may answer inappropriately and become frustrated or even lose interest. To overcome this problem, all participants in this study were given detailed explanation through emails or phone calls on why the Delphi process was exercised and how and when questionnaires were delivered for the first time. The steps applying Delphi approach in this study is constructed as follows:

1. The researcher first had to invite each 20 venture capitalists from the participants of the three categories – FVCFs, GVCFs (Chinese Government-controlled venture capital funds) and NGVCFs (Non-Chinese government-controlled venture capital funds), and 8 from the group SJVCFs (Sino-foreign joint venture capital funds). (This research has successfully categorised venture capitals operating in China into four categories with the employment of grounded theory. The classification will be expounded in Chapter Four.) To apply the method,

it requires participants providing more time and insights. As venture capitalists may not agree to join in, the researcher did not have a predetermined list of invitation but randomly make a few calls and send invitation emails from returned questionnaires until the target number of participants have reached. Therefore it is not an easy job to gather enough participants in short time. It spent about two weeks to confirm all the participation of venture capitalists.

2. Develop the first round Delphi questionnaire based on the original statistical results compiled from the returned questionnaires applying AHP approach and deliver the first round Delphi questionnaire to the participants. Next, the researcher had to collect the questionnaire; then analyse, draw the difference and similarity and summarise the results. The purpose is to collect the response of the participants on the relative importance among generic (first-tier) criteria derived from the application of AHP approach. It took about two weeks to collect all feedbacks from participants, as there was much time spent on communication with participants.
3. Repeat the same process of the first round in the second round to record the responses of participants on this subject. Each participant was provided the summary derived from the first round summary in this round. All participants' comments are anonymously exhibited. They were asked to comment critically and compare the viewpoints of others, and then revise the original viewpoint of his/her own. However, Chinese venture capitalists tended to give their opinions in a euphemistical way, even though the statements are shown anonymously. The researcher had to spend even much more time on communication in order to

confirm precise meanings with participants behind simply wordings. Therefore it took about 8 weeks to collect all feedbacks.

4. Prepare the final report on the relative importance of generic (first-tier) investment criteria. The conclusions are used for further analysis and comparison.

3.5 Conjoint Analysis for Second-tier Criteria

3.5.1 Introduction

The theoretical framework of conjoint analysis, or conjoint measurement, was first developed by Luce and Turkey in 1964 and later introduced to the marketing research community by Green and Rao in 1971. Judging by the thousands of conjoint applications that have been conducted since 1970, it has also become the most popular multi-attribute decision making model in marketing (Wittink and Cattin 1989).

Conjoint analysis is one of the many techniques for dealing with situations in which a decision maker has to choose among options that simultaneously vary among two or more variables. Therefore it involves the measurement of psychological judgments, such as subjects' preferences, or acceptability, or perceived similarities or differences between choice alternatives. The method utilises a combination of statistical skills, including analysis of correlation, analysis of variance (ANOVA), scaling and rankings, etc., to attribute all latent internal and external factors affecting decision task of a subject and detect how these factors impact decision making behaviour.

3.5.2 Comparison of Conjoint Analysis and Traditional Methods

Traditional methods, such as regression analysis and discriminant analysis, have been proved their shortcomings on decision science. This study hopes to identify the real investment criteria used by venture capitalists and examine the difference between diverse ownership structures of venture capital funds operating in China. The accept/reject decision task for venture capitalists can be viewed as a bundle of attributes. Investment decisions can be made only when ventures pass the scrutiny activities of venture capitalists (Fried and Hisrich 1994). These scrutiny activities include

a series of assessment utilising the investment criteria firmly held by venture capitalists. However, one of the limitations in decision science is that people are poor at introspection and often suffer from recall and post-hoc rationalization biases among others (Shepherd and Zacharakis 1998). Traditional methods typically ask subjects to list and rank decision criteria for decisions made in the past. Therefore traditional methods to identifying VCs' investment criteria can end in the production of the "espoused" or "self-explicated" investment criteria rather than the "in-use" (Zacharakis and Meyer 1998; Shepherd 1999). Such self-reported information or retrospective reports are likely to produce biased results (Huber and Power 1985; Golden 1992; Zacharakis and Meyer 1998), due to the motivation of decision makers to discriminate the result (March and Feldman 1981) or due to possible cognitive and perceptual problems (Fischhoff 1982). For example, a fast-growing venture ready for the debut on a stock market in the near future will be not likely to be offered its shares at a low price per share to investors, although both attributes (a fast-growing venture and low investment price) may be claimed necessary by venture capitalists. Anttila (1992) argues the advantage of Conjoint analysis over traditional methods, is that the former can be used to evaluate the importance/utilities/part-worths of both qualitative (such as brand name) and quantitative attributes. For example, the prerequisite of regression analysis is the existence of a linear relationship between total utility and product attributes and such a relationship derived from past data is so stable that can be used to predict future situation. However, the assumptions can not adapt well to estimate the mercurial human or VCs' mentality in this research.

The process of data collection in conjoint analysis is rather simple. Venture capitalists are only required to subjectively give scores and make

pair-wise comparisons to different profiles influencing their accept/reject decision. The overall evaluation results are decomposed into part-worths in order to precisely gauge the utilities of each investment criterion and the delineate whole the preference structure. Given that there may be certain relationships between the criteria, researchers employing traditional methods cannot distinguish the relationship between the scoring and these factors in appearance. In comparison, Conjoint analysis solves the problem by analyzing the marginal influence of one criterion each time on the overall decision task while others remain unchanged. When all factors are investigated, the relative importance of each factor to the decision task can be derived. Therefore the utility value of each investment criterion in Conjoint analysis can be compared to one another, including non-quantitative attributes conforming to the nature of decision science. In addition, traditional methods on multi-attribute decision-making problems are used to observe the behaviour of a subject and synthesise all into a model, while conjoint analysis assesses the evaluation results collected from each individual to produce respective independent models as well as a compound model.

This study adopts Conjoint analysis, a real-time method recognised by Shepherd and Zacharakis (1998) that can eliminate many of these aforementioned biases in the investigation into VCs' decision science, to examine the "in use" investment criteria of venture capitalists operating in China.

3.5.3 Steps to Conduct Conjoint analysis

The process to apply Conjoint analysis involves five steps in this study. The first step is to define the attributes of investment decision. Traditional

ways to achieve this may be through brainstorming, focus groups, face-to-face interviews and findings of past studies. In addition to these methods, observation of the researcher and a pilot study (deploying the Delphi method) are used in this study to identify attributes for investment decision making. Each attribute contains two to three levels. The total number of attributes and their respective levels determine the number of scenarios (profile) to be considered.

The second step is stimulus (profile) construction. In general, there are two models to construct stimulus: pair-wise (or two-factor evaluation) and full profile. In the pair-wise model, subjects are asked to evaluate two attributes at a time and repeat the process till all attributes are done. In full profile model, or multi-factor evaluation, a profile is a combination of a level of all attributes and represents a set of investment criteria (or a product/service). Like real world alternatives, full profile descriptors present an integrated multi-attribute concept (Green, 1974). The model attempts to represent decision alternatives in a realistic manner and has the advantage that the respondent evaluates each profile holistically and in the context of all other profiles. However, one weakness is that the burden on the subject grows dramatically with the number of profiles that must be ranked. This study employs the full profile model to construct profiles (stimuli) and adopts an orthogonal design using SPSS to associate attributes and their levels and determine the minimum required profiles to presenting in order to reduce the burden of respondents. An orthogonal design is simply one in which the levels of different attributes across profiles are uncorrelated (Huber 2005). Such designs assure that an estimate of one attribute is unaffected by the estimate of other attributes. The ability to implement a design having larger numbers of attributes and levels (reduced through

orthogonal array) has made this methodology the defacto standard for conjoint analysis.

The third step is data collection. Each profile (a set of investment criteria) is described by the levels of the features that it contains. Venture capitalists are asked to give scores to all profiles based on their preferences and equal scores to different profiles are allowed.

The fourth step is the analysis of data. In conjoint analysis, part-worths are identified for the factor levels such that each specific combination of part-worths equals the total utility of a given profile. Several approaches can be applied to achieve this step, including Ordinary Least Squares (OLS), Monotone Analysis of Variance (MONANOVA) and Logistic Regression (LOGIT). The OLS approach to conjoint analysis is adopted in this study for it offers a simple, yet robust method of deriving alternative forms of respondent utilities. Johnston (1972) explained that the OLS procedure is the most appropriate when a study includes a dependent variable that is interval scaled. It also has the advantage of providing standard errors for the estimated parameters (Gogan 1996-97). The objective of OLS conjoint analysis is to produce a set of additive part-worth utilities that identify each respondent's preference for each level of a set of decision criteria. In application, the OLS model solves for utilities using a dummy matrix of independent variables. Each independent variable indicates the presence or absence of a particular investment criterion level. The dependent variable is the respondent's evaluation of one of the profiles described by the independent variables.

The fifth step is to assess the validity and reliability of statistical results at one single subject level and aggregate level. While there are many methods that can be used, the test-retest method is applied in this study. The

method asks the same subjects proportional to the holistic sample to re-evaluate the profiles or make pair-wise comparisons of attributes and then examine the correlation between the two set of results derived at different time. It is validated if most of the participants agreed on the results. The purpose is to examine the reliability of overall results.

If the final results deviated from the principles of validity and reliability, the original model must be reviewed and revised. The cycle to generate a real set of investment criteria is re-entered in case of failure until the statistical results are validated and trustworthy.

3.6 Application of Software Tools

Software tools are deployed in this study including Microsoft Excel and SPSS(13). As conjoint analysis in this study involves a series of quantitative approaches, such as orthogonal design and OLS, it would be an unmanageable task without the help of computer software. In AHP approach, the researcher employs Microsoft Excel to compute the eigenvectors of the 9*9 matrix.

Specifically, the function "Categories" of SPSS(13) to assist data analysis includes three independent processes used for conjoint analysis: "Orthplan", "Plancards" and "Conjoint". The function "Categories" uses orthogonal array in full profile method to reduce the profiles for the assessment of respondents. "Orthplan" assists to frame partial or minimum required profiles for testing. "Plancards" process help establish the cards where selected profiles are recorded. OLS method is used in "Conjoint" process and it allows subjects to give scores to profiles/cards.

3.7 Pilot Study

The purpose of the pilot study was to produce an initial and comprehensive set of (second-tier) investment criteria for further testing and discover unique factors to investment criteria not mentioned in previous studies. The set of investment criteria for formal testing was produced based on three sources. Those broadly accepted investment criteria concluded from the review of literature were first collected. Second, the investment criteria not mentioned in previous studies concluded from five participating venture capitalists operating in China. Third, "Background of Entrepreneur" and "A Proven Business Model in Developed Countries" were also added to the initial list of investment criteria for further testing from the observations of the researcher. The former is added due to the observation of the researcher as a venture capital practitioner in China. From hundreds of ventures looking for funding each year, the researcher observed that many successful entrepreneurs do not begin with "zero" but solid background or guanxi of himself or his family. The latter is initiated as 79% of venture capital investments in China are directly conducted by foreign venture capitals (Zero2IPO China Venture Capital Annual Report 2007). Therefore the researcher tries to test whether a successful business model based on developed VC markets is transferrable to China (a transition economy) and whether such successful experience will become valued in the decision behaviour of venture capitalists in China.

The initial set of investment used for further testing are composed of three resources – the broadly accepted investment criteria concluded from the literature review, the in-use investment criteria of five pioneer venture capital participants operating in China generated from pilot study, and the observation of the researcher. The researcher has concluded the broadly

investment criteria in Chapter 2 as shown in Table 2.2. The task now is to solicit the in-use investment criteria from five participating venture capitalists from the pilot study.

To follow the Delphi method, a team including five venture capitalists was formed for the pilot study in the first place. These five VCs are all acquaintances of the researcher during the post at Zero2IPO. The main reason why selecting them is that they have each invested in at least 5 deals in the past one year before this study and represented four different incorporation form of venture capital firms. Therefore, their contribution can reflect the investment criteria used by each type of venture capital firms to a large extent.

The participants are explained in details about the objectives of this study and the significance of their insights as well as how the researcher will conduct this survey. The participants' experience and background are summarised as Table 3.3 below (as required by the participants, only surnames can be disclosed here).

Table 3.3 Background of Panellists in Pilot Study

Venture Capital Firm/Fund	WI Harper	Sequoia	Sino Swiss Partnership Fund	Hu Nan High Tech VC Firm	AnCai VC Firm
Nationality	Taiwan	US	China	China	US
Classification	FVCF	FVCF	SJVCF	GVCF	NGVCF
Position	Managing Partner	Managing Partner	Partner	Investment Director	Investment Director
Years of Experience	8	9	12	5	4
Deals invested in the past one year before this study	7	11	5	6	7

The process collecting their inputs applying the Delphi approach mainly counts on rounds of questionnaire. The first round Delphi questionnaire was developed and e-mailed to the five participants; responses were collected and analyzed. Each round of questionnaire was also analysed with the assistance of excel.

The participants were requested to give their selection criteria that were used in each of the invested ventures one year before this study and the reasons that they use each of the criteria. The reasons provided are important for further analysis and summarization. The participants did not know who else participated in the pilot study. It must be noted that the researcher did not provide any pre-held investment criteria or opinions for selection. Every investment criterion write down by each participant are required to denote the related deal invested.

The first round questionnaire took about one week to collect all feedback from participants upon their receipt of the questionnaire. 25 investment criteria were generated from the first round questionnaire. The results and analysis were sent to the five participants in the second round questionnaire as shown in Table 3.4. The Table exemplified the feedback of a Taiwan venture capitalist representing WI Harper, incorporated in the form of a foreign venture capital firm.

Table 3.4 Results of First Round Questionnaire

Second-tier (Subordinate) Criteria	MD	Med	SD	Criterion Mentioned or Not		
				Yes/No	Your answer	Overall
1.Team sense of business environmental risks	1	1.4	0.5 5	1.Yes	✓	3
				2.No		2
2.Outside appraisal of entrepreneur	1	1.2	0.4 5	1.Yes	✓	4
				2.No		1
3.Relevant experience and recognised expertise of team	1	1.0	0	1.Yes	✓	5
				2.No		0
4.Administrative skills of team	1	1.4	0.5 5	1.Yes		3
				2.No	✓	2
5.Leadership potential of entrepreneur	1	1.4	0.5 5	1.Yes		3
				2.No	✓	2
6.Ease of market entry	2	1.6	0.5 5	1.Yes	✓	2
				2.No		3
7.A fast-growing market in several years	1	1.2	0.4 5	1.Yes	✓	4
				2.No		1
8.Leadership in the market	1	1.4	0.5 5	1.Yes		3
				2.No	✓	2
9.Product/service distinction	1	1.2	0.4 5	1.Yes	✓	4
				2.No		1
10.Product/service margin	2	1.6	0.5 5	1.Yes	✓	2
				2.No		3
11.Proprietary product/service	1	1.4	0.5 5	1.Yes	✓	3
				2.No		2
12.Possibility to exit during a tolerable period of time	1	1.2	0.4 5	1.Yes	✓	4
				2.No		1
13.Exit option practicable in the future	1	1.4	0.5 5	1.Yes	✓	3
				2.No		2
14.Government supported/protected industries	1	1	0	1.Yes	✓	5
				2.No		0

15.Free from government restrictions	1	1	0	1.Yes	√	5
				2.No		0
16.Expected investment returns	1	1.2	0.4 5	1.Yes	√	4
				2.No		1
17.Level of venture equity valuation	1	1.4	0.5 5	1.Yes	√	3
				2.No		2
18.Background of venture shareholders	1	1.4	0.5 5	1.Yes	√	3
				2.No		2
19.Degree of involvement in venture	2	1.6	0.5 5	1.Yes		2
				2.No	√	3
20.Ration of venture stake	2	1.6	0.5 5	1.Yes		2
				2.No	√	3
21.Referred by other connections other than government and fund investor	1	1.4	0.5 5	1.Yes	√	3
				2.No		2
22.Referred by fund investor other than government	1	1.6	0.5 5	1.Yes		3
				2.No	√	2
23.Referred by relevant government official other than fund investor	1	1.6	0.5 5	1.Yes		3
				2.No	√	2
24.Geographical location of the venture	2	1.8	0.4 5	1.Yes		1
				2.No	√	4
25.Related to the concept of "high tech"	2	1.6	0.5 5	1.Yes		2
				2.No	√	3

Second round questionnaires were delivered to each participant, which record the responses of both other participants and their own responses about the subject. Participants were asked to comment the viewpoints of others and revise that of their own accordingly. When one participant's view is very different from those of others, the participant is asked to provide an explanation that the researcher sends to all the participants. Similarly, all participants in this round were anonymous. It took about another efficient

week to collect all five questionnaires. In this round questionnaire, the criteria circulated by the participants were reduced to 24, in which "Geographical location of the venture" disregarded as the criteria in use. Repeating the analysis as the first round, results of second round questionnaire, shown as Table 3.5, were presented to the five participants for the third round. The first round results were also presented for the comparison of participants. Table 3.5 shows that the participant has revised its previous selection criteria in "1", "4", "6", "8", "10" and "21".

Table 3.5 Results of Second Round Questionnaire

Second-tier (Subordinate) Criteria	MD	Med	SD	Criterion Mentioned or Not		
				Yes/No	Your answer	Overall
1.Team sense of business environmental risks	2	1.6	0.55	1.Yes		2
				2.No	✓	3
2.Outside appraisal of entrepreneur	1	1.2	0.45	1.Yes	✓	4
				2.No		1
3.Relevant experience and recognised expertise of team	1	1.0	0	1.Yes	✓	5
				2.No		0
4.Administrative skills of team	2	1.6	0.55	1.Yes	✓	2
				2.No		3
5.Leadership potential of entrepreneur	2	1.6	0.55	1.Yes		2
				2.No	✓	3
6.Ease of market entry	2	1.6	0.55	1.Yes		2
				2.No	✓	3
7.A fast-growing market in several years	1	1.2	0.45	1.Yes	✓	4
				2.No		1
8.Leadership in the market	2	1.6	0.55	1.Yes	✓	2
				2.No		3
9.Product/service distinction	1	1.2	0.45	1.Yes	✓	4

				2.No		1
10.Product/service margin	2	1.6	0.55	1.Yes		2
				2.No	✓	3
11.Proprietary product/service	2	1.6	0.55	1.Yes	✓	2
				2.No		3
12.Possibility to exit during a tolerable period of time	1	1.4	0.55	1.Yes	✓	3
				2.No		2
13.Exit option practicable in the future	2	1.6	0.55	1.Yes	✓	2
				2.No		3
14.Government supported/protected industries	1	1.0	0	1.Yes	✓	5
				2.No		0
15.Free from government restrictions	1	1.0	0	1.Yes	✓	5
				2.No		0
16.Expected investment returns	1	1.4	0.55	1.Yes	✓	3
				2.No		2
17.Level of venture equity valuation	1	1.2	0.45	1.Yes	✓	4
				2.No		1
18.Background of venture shareholders	2	1.6	0.55	1.Yes	✓	2
				2.No		3
19.Degree of involvement in venture	2	1.2	0.45	1.Yes		1
				2.No	✓	4
20.Ration of venture stake	2	1.2	0.45	1.Yes		1
				2.No	✓	4
21.Referred by other connections other than government and fund investor	2	1.6	0.55	1.Yes		2
				2.No	✓	3
22.Referred by fund investor other than government	1	1.4	0.55	1.Yes		3
				2.No	✓	2
23.Referred by relevant government official other than fund investor	1	1.4	0.55	1.Yes		3
				2.No	✓	2
24.Geographical location of the venture	2	1.0	0	1.Yes		0
				2.No	✓	5

25.Related to the concept of “high tech”	2	1.2	0.45	1.Yes		1
				2.No	√	4

Repeating the same process, in the third and fourth round, the results were not different. The results were sent to each participant and the researcher followed to validate such results with each participant. It is worth noted that “Geographical location of the venture” was not favoured by any of the five participants in the third and fourth round. Therefore it should be excluded from our final list of investment criteria.

After four rounds of questionnaire implementation, the conclusions derived from the Delphi method were generated as shown in Table 3.6, in which “2” under the “Source” column denotes the conclusion of the Delphi method. It is important to mention that the conclusions of each investment criterion employing Delphi method received at least one “yes” answer from one participant. In total, 24 in-use investment criteria were concluded from the Delphi Method.

Table 3.6 exhibits 26 of investment (second-tier) criteria incorporating the conclusions derived from pilot study employing Delphi method, broadly accepted investment criteria and those suggested by the researcher are prepared for further testing. These 26 investment criteria will be used as the basis for further testing.

Table 3.6 Initial Set of Criteria for Further Testing

First-tier (Generic) Criteria	Second-tier (Subordinate) Criteria	Source
Managerial Capabilities	Team sense of business environmental risks	1, 2
	Outside appraisal of entrepreneur	1, 2
	Relevant experience and recognised expertise of team	1, 2
	Administrative skills of team	1, 2
	Leadership potential of entrepreneur	1, 2
Market Prospect	Ease of market entry	1, 2
	A fast-growing market in several years	1, 2
	Leadership in the market	1, 2
Product/service Differentiation	Product/service distinction	1, 2
	Product/service margin	1, 2
	Proprietary product/service	1, 2
	Related to the concept of "high tech"	1, 2
Exit	Possibility to exit during a tolerable period of time	1, 2
	Exit option practicable in the future	2
Government Influence	Government supported/protected industries	2
	Free from government restrictions	2
Financial Considerations	Expected investment returns	1, 2
	Level of venture equity valuation	1, 2
Shareholding structure	Background of venture shareholders	2
	Degree of involvement in venture	2
	Ration of venture stake	2
Guanxi	Referred by other connections other than government and fund investor	2

	Referred by fund investor other than government	2
	Referred by relevant government official other than fund investor	2
	Background of entrepreneur	3
Others	A proven business model in developed countries	3

Note: "1" represents the second-tier criterion mentioned in past studies, "2" the conclusions derived from pilot study and "3" the researcher.

3.8 Sample and Data Collection

3.8.1 Sample

This study does not limit itself to any sampling method but simply count on personal connections (Guanxi) of the researcher in China venture capital cycle because venture capitalists are generally poor informants in nature for academic researches according to the understanding and practical experience of the researcher. Therefore any predetermined sampling method will face the risk getting insufficient sample data.

Zero2IPO Group has played an influential role in China venture capital industry. Zero2IPO Research Centre provides the one and only research information and deals' database for all China venture capital practitioners. In addition, Zero2IPO China Venture Capital Annual and Semi-annual Forums held periodically are the largest events in this cycle. In addition, the Group also manages a venture capital fund and provides financial advisory services for ventures at all stages and various transaction types. Therefore during the post as the managing director of Zero2IPO Group, the researcher can establish good personal connections (guanxi) to many (senior) venture capitalists operating in China. With the assistance of guanxi of the researcher and Zero2IPO China Venture Capital and Private Equity Directory 2007 as well as the online Zero2IPO China Venture Database, the researcher can get access to almost all venture capital investors active in China.

According to Zero2IPO Research Centre, there are 288 venture capital firms operating in China pooling the total capital available for investment in the mainland of US\$19.086 billion by the end of 2006. Although the number of foreign venture capital firms (FVCFs) and Sino-foreign joint venture capital firms (SJVCFs) together account for only 27.28% (80/288) of total venture capital firms operating in mainland China, they stand for 72.49% of

total capital available for investment in China by 2006. Thus FVCFs and SJVCFs are the main driver of China's venture capital investments.

Our fieldwork interviewed 124 VCs representing 112 firms, mostly centred in Beijing, Shanghai and Shenzhen as shown in Table 3.7, that represent a total capital pool of US\$16.10 billion available for investment in mainland China by the end of 2006. Over 70% of FVCFs and SJVCFs participated in the survey, representing 94.12% and 67.20% of total capital available for investment in mainland China respectively. Likewise, the number of non-Chinese government-controlled venture capital firms (NGVCFs) and Chinese government-controlled venture capital firms (GVCFs) interviewed accounted for 27.18% and 23.81% respectively, but they both represented over half the total capital available for investment in the mainland respectively, illustrated as Table 3.8. Therefore the sample size and conclusions generated in this survey can be considered significant in representing China venture capital industry.

Table 3.7 Geographical Location of Respondents by Investment Type

Type Location	FVCF	SJVCF	NGVCF	GVCF	Total
Beijing	24	12	8	6	50
Shanghai	18	2	10	3	30
Shenzhen	3	6	6	2	16
Hu Nan	0	0	0	2	2
He Bei	0	0	0	1	1
Tien Jin	0	0	0	3	4
Zhe Jiang	0	0	5	2	4
Shan Dong	0	0	0	2	3
Guang Dong	0	0	2	2	7

Si Chuan	0	0	0	2	4
Hu Bei	0	0	0	1	2
Chong Qing	0	0	0	2	1
Total	45	20	31	28	124

Table 3.8 Number of Respondents, VC Firms and Total Capital Available for Investment in Mainland China

Type	No. of Interviewees	No. of Interviewed/ Total VC Firms in Mainland China (%)	Interviewed/Total Capital Available for Investment in Mainland China (%) (US\$M)
FVCF	45	40/56 (71.43%)	12,488/13,268 (94.12%)
SFJVCF	20	19/24 (79.17%)	381/567 (67.20%)
NGVCF	31	28/103 (27.18%)	2,598/4,095 (63.44%)
GVCF	28	25/105 (23.81%)	635/1,154 (54.99%)
Total	124	112/288 (38.89%)	16,101/19,086 (84.36%)

The average age and experience of venture capitalists in FVCFs and SJVCFs are older and longer than those of NGVCF and GVCF included in the sample, since China's venture capital industry started much later (1985) than their foreign counterparts as shown in Table 3.9. In addition, Table 3.10 shows that the participants of the survey are with the positions of senior investment manager and above.

Table 3.9 Average Age, Average Years of Experience in VC Industry and VC Firm by Respondent

Type	Average Age of Interviewees	Average Years of Experience in VC Industry	Average Years of Experience in the VC Firm
FVCF	34.2	6.5	3.3
SFJVCF	41.1	8.1	4.5

NGVCF	28.7	2.3	2.1
GVCF	30.1	3.1	2.5

Table 3.10 Respondents and Their Position in VC Firm

Type	Partners/Managing Partners	Managing Directors	Senior Investment Managers/Director	Total
FVCF	24	9	12	45
SFJVCF	12	4	4	20
NGVCF	2	13	16	31
GVCF	0	11	17	28
Total	38	37	49	124

3.8.2 Data Collection

Both face-to-face interviews and questionnaire surveys were used to collect data in this study. Interviews were conducted intensively in Beijing, Shanghai, Shenzhen and some second-tier provincial cities, such as Hangzhou and Tianjing. Questionnaires were given after the interviews. There are four reasons for applying this dual data collection method. Firstly, face-to-face conversation is an essential and appropriate step to establish bilateral trust in China excelling telephone or email contacts. A traditional Chinese saying “Jian Mian San Fen Qing”, which means “meeting in person greatly enhances the relationship”, best explains why face-to-face conversation can produce unexpected chemical reactions and interpersonal credits in the Confucian society. The guanxi established through the interview is also helpful for the later communication and collection of questionnaire. Secondly, the strong connections of Zero2IPO Group and the researcher self with venture capital firms and VCs respectively also

encouraged the use of face-to-face interview. Thirdly, face-to-face interview allows spontaneous discussion of problems arising during the interview process. Lastly, face-to-face interviews are most relevant in applying a grounded theory approach as the method requires participants offer their insights in details on a designated topic.

In addition, as mentioned earlier, interviews with venture capitalists were guided by interview guidelines containing open-ended questions and were tape-recorded for transcription, from which a list of domains of study was generated. Such structured interviews allowed more systematic and strategic data analysis later on. The researcher also needed to take observation/field notes, focusing especially on complex issues, such as the investment structures of foreign venture capital firms. This was especially essential to rule out the possibility of misinterpretation and to ensure data quality. Following the interview guidelines, the researcher got a thorough understanding of the research questions during the interviews.

The interview was structured into three parts. Firstly, each interviewee was provided an initial classification of venture capital firms by the researcher: FVCF, SJVCF, NGVCF and GVCF. Each subject was asked to state their fund/firm ownership and management structure. Then they were asked to classify themselves into one of the groups based on the synthesised consideration of fund/firm ownership and management control. If the subject was with a FVCF or SJVCF, he/she was given the further question to depict how they entered the Chinese market and how they structured capital flows into China. The initial framework discussed with the first interviewee represented the base model employed. The model with information supplied in previous interviews was presented to the next interviewee for validation, and the framework updated as necessary. Insights provided by each

interviewee were also compared to the established Western framework of venture capital during the interviews. Deals origination mentioned in the interviews were recorded in order to understand the relationship between the type of venture capital firms and deal informants and between informants and selection process.

Secondly, at the end of each interview, the subjects were given a questionnaire in both printed and electronic versions for the other research questions on investment criteria. The researcher explained in details to each subject about the questionnaire survey. They were all given two weeks to finish the questionnaire.

Finally, every interviewee was asked to confirm his/her answer on the categorisation of their venture capital firm. This question is especially important for Chinese venture capitalists as some of them may be inclined to deny the influence of government power. Chinese venture capital firms are generally incorporated in the form of limited liability rather than limited partnership, with funding source either from the government or the private sector. Indeed, two venture capitalists chose to be with NGVCF at first but changed to GVCF at the end of interview.

In total, 124 VCs were interviewed with each interview lasting between one hour and two hours, with 110 interviews conducted in Chinese language and 14 in English. All interviews were taped and transcribed after each interview. Follow-up questions were mostly conducted through email and telephone. Two venture capitalists had second interviews as the interviewees were forced to leave for other interrupted appointments in the first interview.

In addition, the researcher generally attempted to interview the most senior person in the firm, such as a partner or managing partner. However, some of these people preferred to keep a low profile and therefore asked

their colleagues to take the interview instead. It is also worth noting that the researcher luckily had only two refusals requesting interviews. This is likely the result of the strong guanxi possessed by the researcher with the subjects and the influence and reputation of the Zero2IPO Group in China venture capital cycle.

3.8.3 Questionnaire Design

Two different set of questionnaires, as shown in Appendix VII, were designed for the application of the AHP method and conjoint analysis respectively in order to investigate the relative importance among first-tier (generic) criteria and among their second-tier (subordinate) criteria.

3.8.3.1 Questionnaire for AHP Method

To classify the relative importance among generic criteria, the AHP judgment matrix was designed to generate required data, and the questionnaire created accordingly.

The essence of this questionnaire is to make pair-wise comparisons of the generic investment criteria, illustrated as follows (Please also refer to Table 4.2 for the results applying AHP judgment matrix):

Part I. Please Make Pair-wise Comparisons of the Generic Investment Criteria Provided in the Matrix

Instructions:

Please use 1, 2, 3,...9 or 1, 1/2, 1/3,...1/9 to specify the relative importance of one generic investment criteria to the other and fill in the

blank. For example, "1" means they both are equally important to investment decision-making, while "9" means the former is extremely more important than the latter. In comparison, 1/2 means the former is somewhat less important than the latter and 1/9 the former is extremely less important than the latter.

Question 1: Managerial Capabilities vs. Market Prospect
_____ 3 _____

Question 2: Managerial Capabilities vs. Product/Service Differentiation
_____ 5 _____

Question 3: Managerial Capabilities vs. Exit _____ 4 _____

.....

3.8.3.2 Questionnaire for Conjoint Method

Conjoint analysis is employed to calculate the relative importance of second-tier (subordinate) evaluation criteria relative to their respective first-tier (generic) category. There are nine generic categories containing 26 subordinate evaluation criteria summarized as Table 3.5, among which eight generic categories are comprised of two to five subordinate evaluation criteria and one generic category has only one. Therefore eight different questionnaires were prepared for the investigation. Each questionnaire is consisted of several cards and each card is an association of various levels of subordinate evaluation criteria representing one generic category as shown in Table 3.11.

Table 3.11 Sixteen Associations under Managerial Capabilities

Card / Managerial Capabilities	Team sense of business environmental risks	Outside appraisal of entrepreneur	Relevant experience & recognised expertise of team	Administrative skills of team	Leadership potential of entrepreneur
1	Moderate	Fair	Medium	Fair	Strong
2	Moderate	Good	Weak	Good	Weak
3	High	Fair	Weak	Good	Medium
4	Low	Poor	Weak	Poor	Strong
5	High	Good	Strong	Good	Strong
6	High	Good	Medium	Poor	Strong
7	Low	Good	Medium	Good	Weak
8	High	Poor	Strong	Fair	Weak
9	High	Poor	Medium	Good	Medium
10	Moderate	Poor	Strong	Good	Strong
11	Low	Good	Strong	Fair	Medium
12	Moderate	Good	Strong	Poor	Medium
13	High	Good	Weak	Fair	Strong
14	Low	Fair	Strong	Good	Strong
15	High	Good	Strong	Good	Strong
16	High	Fair	Strong	Poor	Weak

Such associations and the number of cards in each card were all produced through orthogonal array in order to reduce the frequency of comparison to the manageable level. For example, to evaluate the importance of the five subordinate evaluation criteria of managerial capabilities and each criteria has three levels, $3^5=243$ combinations are needed to be investigated which is mission impossible for subjects in application. With the assistance of orthogonal array, just sixteen associations are enough to represent the whole ones.

Furthermore, subjects were asked to give one score to each sixteen cards

from one to nine according to their preferences with 1 representing the most preferred and 9 the least, as illustrated below.

Part II. Please give one score to each of the following sixteen cards for the measurement of "Managerial Capabilities".

Instructions: Please give one score to each of the following sixteen cards from one to nine where 1 represents the most preferred and 9 the least.

Card 1

- | | | |
|---|--|----------|
| ■ | Team sense of business environmental risks | Moderate |
| ■ | Outside appraisal of entrepreneur | Fair |
| ■ | Relevant experience & recognised expertise of team | Medium |
| ■ | Administrative skills of team | Fair |
| ■ | Leadership potential of entrepreneur | Strong |

Score _____

Card 2

- | | | |
|---|--|----------|
| ■ | Team sense of business environmental risks | Moderate |
| ■ | Outside appraisal of entrepreneur | Good |
| ■ | Relevant experience & recognised expertise of team | Weak |
| ■ | Administrative skills of team | Good |
| ■ | Leadership potential of entrepreneur | Weak |

Score _____

3.9 Measurement of Reliability and Validation

Reliability Measurement

The purpose of reliability examination is to test the consistency of a study or questionnaire. Kirk and Miller (1986) identify three types of reliability referred to in quantitative research, which relate to: (1) the degree to which a measurement, given repeatedly, remains the same (2) the stability of a measurement over time; and (3) the similarity of measurements within a given time period. Charles (1995) adhered to suggest that consistency with which questionnaire items are answered or respondents' scores remain relatively the same can be determined through the test-retest method at two different times. Therefore a measurement is proved to be reliable or consistent if the measurement can produce similar results in similar circumstances i.e. the results are repeatable. Reliability can be estimated in several ways, such as split half reliability, test-retest reliability and inter-rater reliability method.

Test-retest reliability refers to the estimation based on the correlation between two (or more) administrations of the same item, scale, or instrument for different times, locations, or populations, when the two administrations do not differ on other relevant variables (typically, the Spearman Brown coefficient). The appropriate length of the interval depends on the stability of the variables which causally determine that which is measured. Statistically, test-retest reliability is treated as a variant of split-half reliability and also uses the Spearman-Brown coefficient. Inter-rater reliability, measuring *homogeneity*, is administering in the same form to the same people by two or more raters/interviewers so as to establish the extent of consensus on use of the instrument by those who administer it.

Split half reliability is a measure of internal consistency where a test is

split in two and the scores for each half of the test is compared with one another. It is administering two equivalent batteries of items measuring the same thing in the same instrument to the same people. The magnitude of the Cronbach alpha estimates is appropriate for the proof of the reliability (Henson, 2001). Cronbach's alpha can be interpreted as the percent of variance the observed scale would explain in the hypothetical true scale composed of all possible items. Alternatively, it can be interpreted as the correlation of the observed scale with all possible other scales measuring the same thing and using the same number of items. Alpha is calculated as follows:

$$\alpha = \frac{k\bar{r}}{1 + (k-1)\bar{r}}, \quad \text{Where}$$

k is total number of items;

\bar{r} is the average inter-item correlations

Assisted by SPSS(13), split half reliability is entrusted in this study. Basic construct of split-half reliability measurement is to divide the retrieved questionnaire into half (62-62) and calculated both of their coefficients of Cronbach's Alpha. Alpha equals zero when the true score is not measured at all and there is only an error component. Alpha equals 1.0 when all items measure only the true score and there is no error component. Generally, if Cronbach Alpha is greater is greater than 0.9, the questionnaire is judged as "very reliable"; if it is between 0.9 and 0.8, it is regarded as "reliable". If it is between 0.8 and 0.7, it is considered as acceptable but there may be some problems in questionnaire design. If it is below 0.7, it implies serious

problems in the questionnaires and should consider redesign or revise the questionnaire.

In SPSS(13), select "Analyze", "Scale", "Reliability Analysis"; "list variables"; "click Statistics"; select "Item Scale"; select "Split-Half" from the Model drop-down list. SPSS(13) takes the first half of the items as the first split form, and the second half as listed in the dialog box as the second split form. In this study, Cronbach Alpha coefficients obtained for the two questionnaires adopting AHP method and conjoint analysis are 0.8154 and 0.8367 respectively. Therefore both of questionnaires applied in this study can be regarded as "reliable", according to definition of Kerlinger (1986).

However, the researcher suggests that sample size does matter to the replication of the research results, the proper classification of China venture capital firms and ultimately the success of this study. The key to conduct this research is that the researcher has strong personal connection/guanxi with venture capitalists operating in China and the influence of the Company (Zero2IPO Group) the researcher works with. Therefore the researcher suggests that the study can be difficult to replicate due to the problem to produce the same sample size.

Validity

The purpose of validity measurement in this study is to examine to what degree our results and findings can accurately address our research objectives. There are two basic requirements to recognise the validity of the study: if our measures actually measure what the study intends to (Joppe 2000, Meister 2004, Suter 2006), and if there is no logical error in drawing conclusions from the data.

The grounding results on the entry strategy of foreign venture capitals

and categorization of China venture capital firms as well as the findings on investment criteria are sent to a selected number of VCs in four categories for further validation through emails. In total, 38 VCs (13 FVCFs, 8 SJVCFs, 8 NGVCFs and 9 GVCFs) participated in the validation. None of the feedbacks from these participants were negative to our results and conclusions.

Therefore it can be asserted that our questionnaire and research methods properly and accurately address validity and reliability challenges within our research design.

Chapter 4 Results and Findings

In this chapter, findings first presents the diverse entry strategies of foreign venture capital investors into China according to the grounding results and classified all venture capital firms into four categories: foreign venture capital firms (FVCFs), Sino-foreign joint venture capital firms (SJVCFs), Chinese government-controlled venture capital firms (GVCFs) and non-Chinese government-controlled venture capital firms (NGVCFs). Based on the statistical results, sets of investment criteria used by various groups of venture capitalists operating in China are generated, compared to one another and those developed in developed venture capital markets as well as transition economies. Viewpoints given by interviewees are incorporated into the results in order to present readers most close interpretations of the conclusions and address the research questions.

4.1 Entry Modes of Foreign Venture Capitals and Classification of Venture Capitals in China

4.1.1 Significance of Classification

The grounding results indicate that most foreign venture capital investors do not directly register venture capital funds/firms in mainland China. Instead, they register offshore especially in the so-called 'tax heavens', such as Cayman Islands, Bermuda and BVI (British Virgin Islands), in the incorporation form of a limited partnership or limited company while establishing a branch office onshore and generally hiring returnees with US venture capital experience to manage all investment and post-investment management activities. Further, as exits in local markets are still difficult for

foreign venture capital investors - due to the legal hurdles to setting a foreign venture capital firm, high domestic listing requirements, foreign currency translation and capital controls - these foreign venture capital investors demonstrate innovativeness to enable foreign listings via the so-called “red chip” model (Chinese companies listing on foreign capital markets through overseas holding vehicles). In addition, as Chinese enterprises generally lack the experience and knowledge about international financial market practices (Kang 2007), substantial efforts must be added to portfolio companies for foreign listings. Generally, venture capitalists with US experience and practice are more familiar with US listing requirements and inclined to liquidate their investment on US capital markets (Zero2IPO China Venture Capital Annual Report 2006).

Findings from foreign venture capitalists and the understanding of the researcher from practical operation experience, the researcher suggest five reasons for this circuitous investment strategy. Firstly, under such a model, the foreign venture capital fund itself can be formed and managed in a foreign jurisdiction where the conventional structure can be applied without the legal barriers and foreign exchange and capital controls. The essence of the investment structure is to utilise a foreign legal system to create certain investors' rights, such as the conventional privileges attached to preferred shares, tag-along rights, registration rights, etc, which are not presented under Chinese laws. An offshore vehicle may adopt a stock option scheme, which is also not available under Chinese laws.

Secondly, with overseas vehicles, foreign venture capital investors can sell their interests via IPO on overseas markets or trade sale to the overseas third party for liquidation. The investment cycle is hence completed wholly in foreign currency (mostly US dollars) eluding the predicaments involved

with local currency (Kang 2007).

Thirdly, domestic money, including funds of Sino-foreign joint venture capital firms, is not allowed to invest in an offshore company, unless approved by Moftec (Ministry of Foreign Trade and Economic Cooperation). The reasons behind the control are that Chinese policy encourages domestic listing and attempts to curb capital flights. In other words, if a foreign investor invests in a Sino-foreign joint venture capital firm, they invest in an entity registered onshore with Chinese Yuan, while venture capitals invest in a Chinese venture registered overseas with foreign currency.

Fourthly, raising new funds in China for foreign venture capital investors is very difficult. As the government policy still encourages using foreign capitals, local LPs (generally local governments and large-scale SOEs) are very reluctant to invest in foreign venture capital funds. In contrast, through the offshore holding structure, venture capital firms can freely raise new funds from worldwide LPs. Lastly, as the intellectual property (IP) protection in China is still very weak (White et al 2000), by investing in an offshore company, the IP owned by Chinese enterprises or individuals can be protected and freely transferred under foreign jurisdiction.

Why do foreign venture capitals choose to establish a Sino-foreign venture capital firm/fund instead a wholly foreign-owned venture capital firm? The researcher suggests that the motives can be classified into three categories. Firstly, it is to avoid political interference. For example, Taiwan venture capitalists have been active in China since the mid-90s'. With the aid of same language, cultural origin and well-trained venture capitalists practicing US disciplines, Taiwan venture capitalists have gained inherent advantages over their foreign counterparts in China. However, the Taiwan government has put up strict restrictions against the direct transfer of

venture capital money into the mainland. Therefore, some Taiwanese venture capital firms, such as Fortune Venture Investment Group and the Singapore listed Hotung Group (SGX. Hotung) chose to establish Sino-foreign joint venture capital firms with local governments or their investment affiliates to compensate for the deficiency of funding sources.

Secondly, it is to seek economic cooperation in China with both diplomatic and economic motives. The Chinese government has established three such venture capital funds with Switzerland, Israel and Belgium respectively. Thirdly, it is to utilise the local connection of Chinese partners to originate deals, especially state-owned companies. Many venture capitals from US and Europe adopted this strategy since the mid-90s' in order to bridge the gap in cultural and regulatory environments based on Zero2IPO China Venture Database. However, rarely has this strategy been replicated since the recovery of worldwide internet bubble when more potential private enterprises emerged and many returnees with US venture capital practice have returned to China market.

In comparison, Chinese venture capital firms, whether they are Chinese government-controlled or not, tend to only possess capital denominated in Chinese Yuan and are only allowed to invest in ventures registered in the mainland unless government approval is received. With these limitations, they usually seek exit through domestic capital markets or assets and equity exchange centres located in first-tier Chinese cities, such as Beijing, Shanghai and Wuhan. Further, some Chinese venture capital investors may seek to establish Sino-foreign joint venture capital firms with foreign counterparts because they generally lack the expertise of experienced venture capitalists to run a fully state-owned venture capital firm. While the incorporation form as a Sino-foreign joint venture capital firm is much smaller a group in quantity

than other forms of incorporation, it is a form that many foreign venture capitals first consider when diversifying into China. However, the worries over the discrepant investment values and whether a harmonious decision-making structure can be produced between the dyads account for the relinquishments from the observation of the researcher.

4.1.2 Entry modes of Foreign Venture Capitals

The researcher interviewed a total of 65 foreign venture capitalists representing 40 FVCFs and 19 SJVCFs for the entry model of foreign venture capitals with the grounded theory approach. Venture capitalists were asked to depict how they entered the Chinese market and how they structured capital flows into China. The initial framework discussed with the first interviewee represented the basic model employed. The model with information supplied in previous interviews was presented to the next interviewee for validation, and the framework updated as necessary. Each respondent was also required to confirm their category of venture capital firms. Findings were examined and ten distinct entry modes were identified as being deployed by foreign venture capitalists when they first enter the Chinese market. The ten modes are discussed respectively as follows:

Mode 1 – The Common Entry Mode

Figure 4.1 shows the most common entry mode of foreign venture capitals. As shown, a foreign venture capital firm/fund is registered offshore and sets up an onshore branch office and management team responsible for investment and post-investment management activities in China. Foreign venture capital firms generally are backed by pension funds, insurance

companies, fund of funds, banks and so forth, purely focused on future financial returns (Zero2IPO Research Centre 2007).

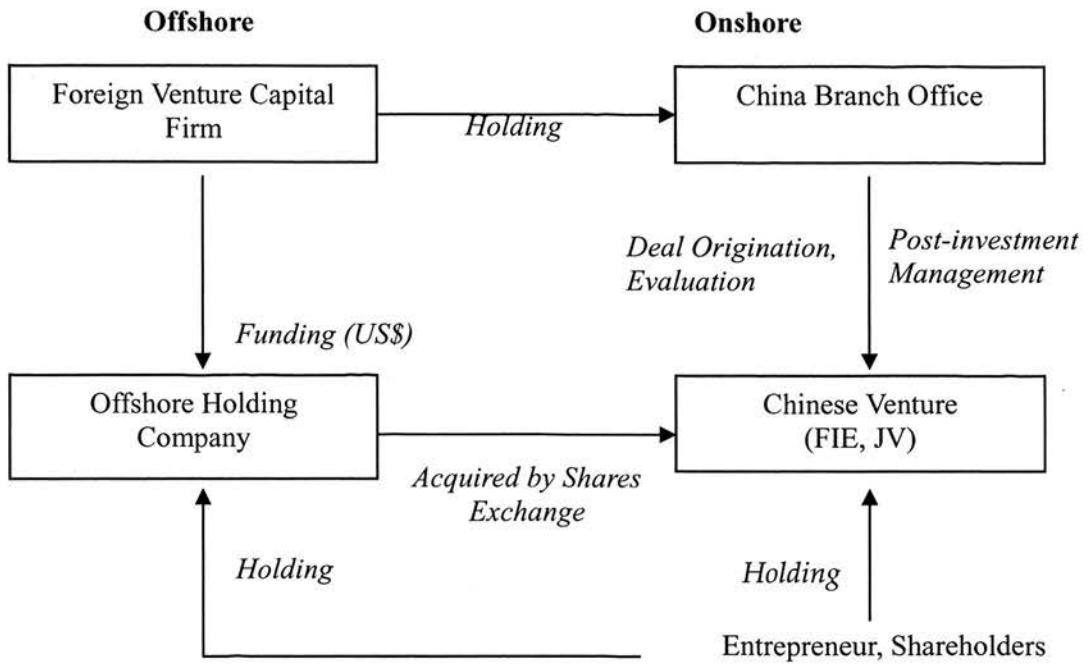


Figure 4.1 Common Entry Mode

When a Chinese venture is granted funding, foreign venture capitalists will help the venture establish the offshore holding structure and invest in the offshore holding vehicle. Then the offshore vehicle will acquire the onshore operation entity by means of a shares exchange or cash purchase. After the acquisition, onshore Chinese venture will become a foreign-invested enterprise (FIE), a Sino-foreign joint venture (JV) or a wholly foreign-owned enterprise (WFOE) depending on the shareholding ratio of the offshore company from a wholly Chinese-owned enterprise (WCOE). The investment contract is entered between the offshore entity and the foreign venture capital investor which entails the terms on both parties. The domestic entity is responsible for all business activities and transactions after the acquisition, rather than the offshore vehicle. With this structure, the

foreign venture capital investor can easily exit from the investment through the sale of interests in the offshore company to a third party or overseas listings.

Mode 2 – The Derivate of Mode One - Investing in a Restricted Industry

Mode 2 is the derivative of the common entry mode which explains how foreign venture capitals can invest in Chinese ventures of restricted industries including portals, media, some categories of Telecommunications, education, etc. Figure 4.2 explains how Sohu.com (NASDAQ. SOHU), a famous Chinese online portal and media services company, received funding from Intel Capital and Dow Jones in 2003. Sohu.com (Beijing) was initiated and registered in the name of a Chinese citizen, the entrepreneur, Chao-yang Zhang, in the PRC in the beginning in order to legitimately own the portal license.

The contract between Sohu.com (Beijing) and Sohu.com (Cayman Islands) stipulates that ITC (Beijing), 100% owned by Sohu.com (Cayman Islands), is the one-and-only technical services provider and the sales agent to Sohu.com (Beijing). Through complicated and detailed legal and commercial arrangements, these three companies become one of unity in substance, but are three legally independent entities on the surface that do not break Chinese laws. Under this model, consultant fees are incurred on Sohu.com (Beijing) in return and almost all sales and profits of Sohu.com (Beijing) are transferred to Sohu.com (Cayman Islands). Sohu.com (Beijing) only remains profitable enough to cover its operational expenses.

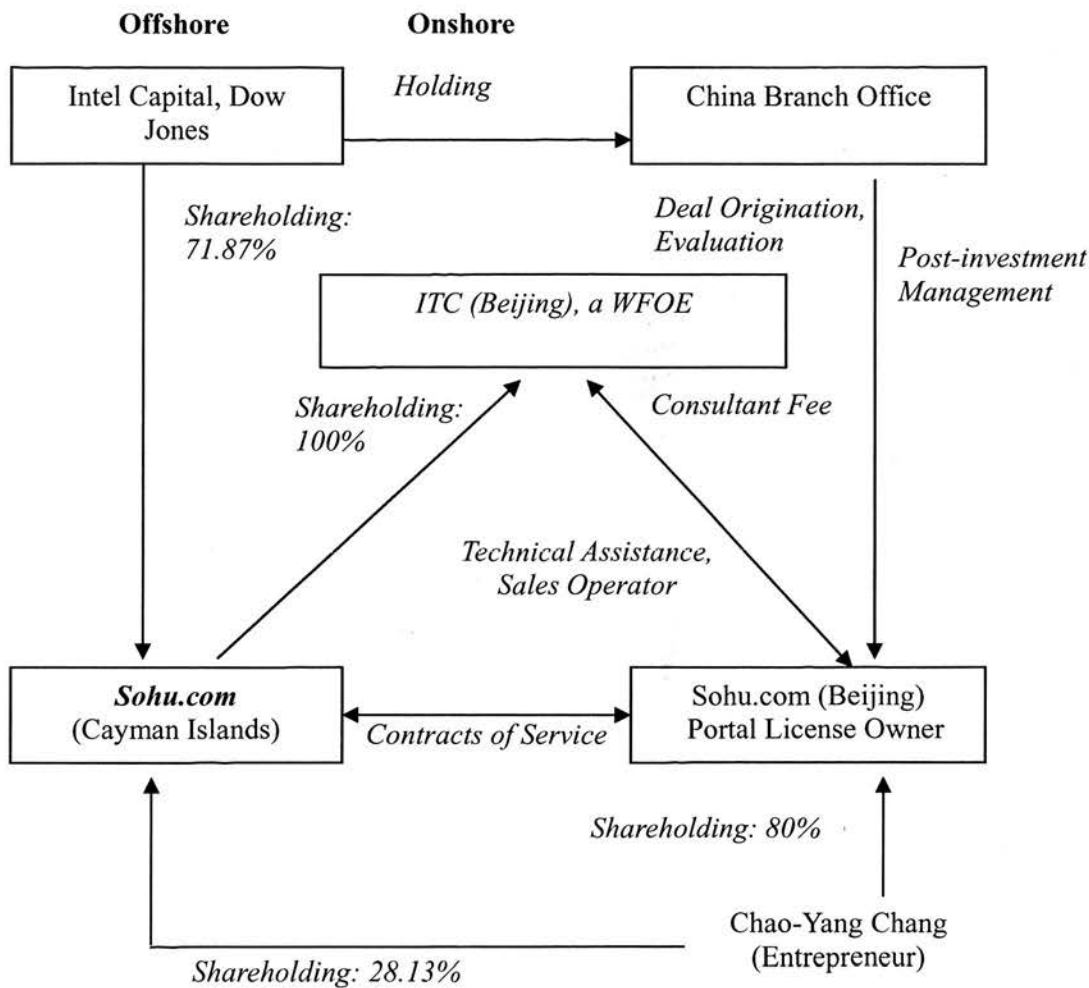


Figure 4.2 The Derivate of Mode 1 - Investing in a Restricted Industry

Mode 3 – Dual-currency Strategy Utilised by Investment Arms of Industrial Conglomerates

Investment arms of industrial conglomerates can be divided into two types by investment purposes. For some industrial conglomerates that invest purely for financial returns, such as iDTech (affiliated to Acer), their investment mode is similar to Mode One. Some others, such as Intel Capital, Qualcomm, Microsoft, Samsung, etc, invest in China with development guidelines of their parent companies and minor financial incentives. These guidelines include consolidation of market share (Qualcomm, Microsoft and

Intel), utilisation of local brainpower in research and development (Microsoft, Intel and Samsung), or supply of key components (Intel, IBM and Samsung). These two types of investment arms commonly generate revenues denominated in Chinese Yuan and venture capital funds registered outside China. Therefore they can invest in Chinese ventures registered either onshore (with Chinese Yuan) or offshore (with US dollars) in their best interests. Mode 3 is illustrated as Figure 4.3.

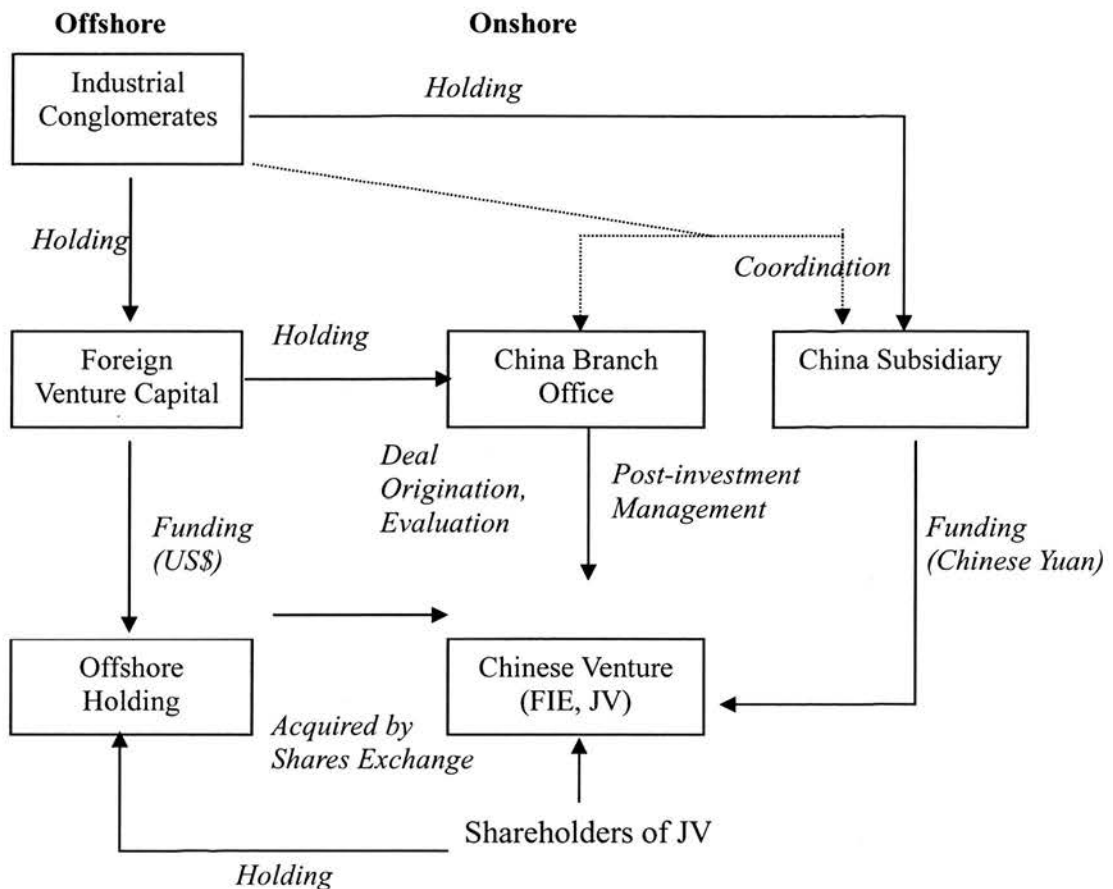


Figure 4.3 Dual-currency Strategy Utilised by Investment Arms of Industrial Conglomerates

The flexibility of a dual-currency strategy and the possibility of being directly acquired by the parent conglomerate in the future have greatly

increased the attractiveness of such foreign investors to Chinese ventures compared to other types of venture capital firms.

Mode 4 – Investing in Spin-offs of Research Institutes

Foreign venture capitalists interested in spin-offs of government projects, university or research institutes may choose to directly establish a joint venture. For example, Intel Capital and Dragon Tech Ventures co-initiated ChinaTech with the state-owned Institute of Software of Chinese Academy of Sciences (ISCAS). As shown in Figure 4.4, ChinaTech, that included related scientists of the project, was spun off from ISCAS. Onshore ChinaTech received venture capital investment through ChinaTech (Cayman Islands) from Dragon Tech and Intel Capital, while ISCAS invested in onshore ChinaTech with its intellectual property in exchange for 25% of shareholding of the joint venture.

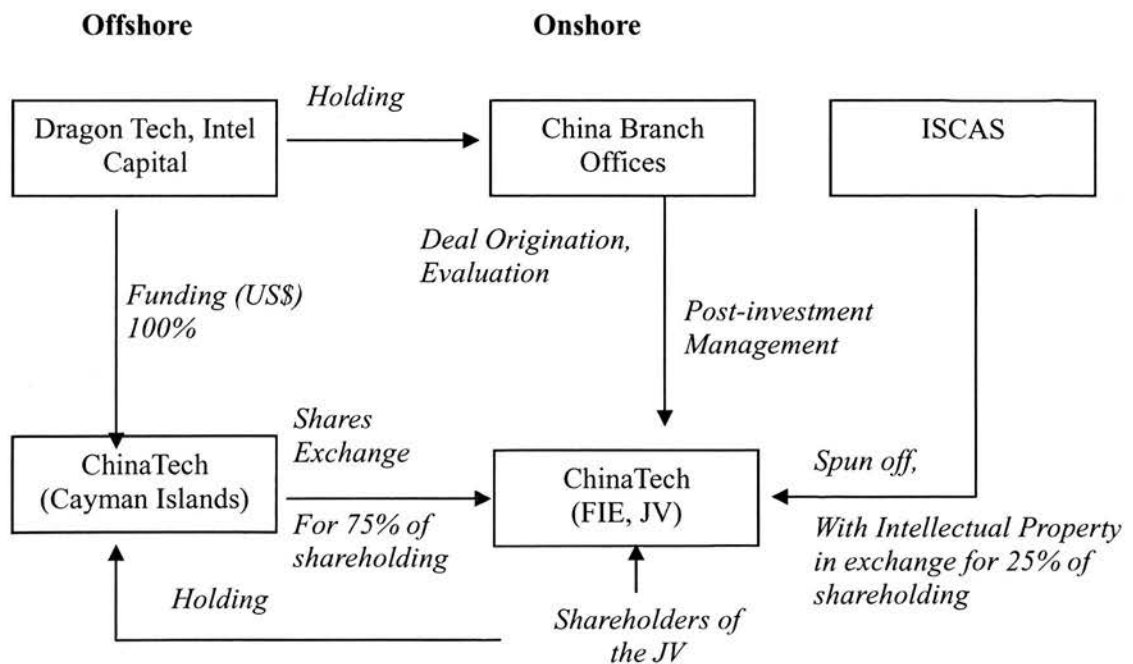


Figure 4.4 Investing in Spin-offs of Research Institutes

Under the trilateral agreements, equity interests or bonus can be transferred to the scientists/entrepreneurs as rewards to compensate for their contribution in the creation of intellectual property.

Mode 5 – Play the Role as a GP in an Onshore Sino-foreign Joint Venture Capital Firm

As mentioned earlier, some foreign venture capitals are restricted to invest in China due to political reasons, such as Taiwan, or limited in funding sources. They may choose to establish Sino-foreign joint venture capital firms (SJVCF) with Chinese partners that are registered onshore. Under such a model, the foreign venture capital side holds minority interests in the fund and manages the SJVCF like a general partner. As show in Figure 4.5, Taiwan Sino-Century Assets Management (TSCAM) is established with a solid track record in both Silicon Valley and Taiwan but had limited capital sources to directly invest in China under the strict control of the Taiwan Government. Therefore they initiated four onshore SJVCFs with local Chinese governments of Shanghai, Beijing, Shenzhen and Xian respectively in the mid 1990's. Local governments were attracted to their strong profit record and similarity of cultural background.

In this model, TSCAM acts as a GP offering senior venture capitalists, expertise and limited capitals, while local governments were the main capital contributor similar to the LPs. As the SJVCFs were registered in the PRC, the capital of TSCAM was translated into Chinese Yuan. According to the bilateral initiation agreement, venture capitalists from TSCAM can conduct investment activities freely at professional judgements.

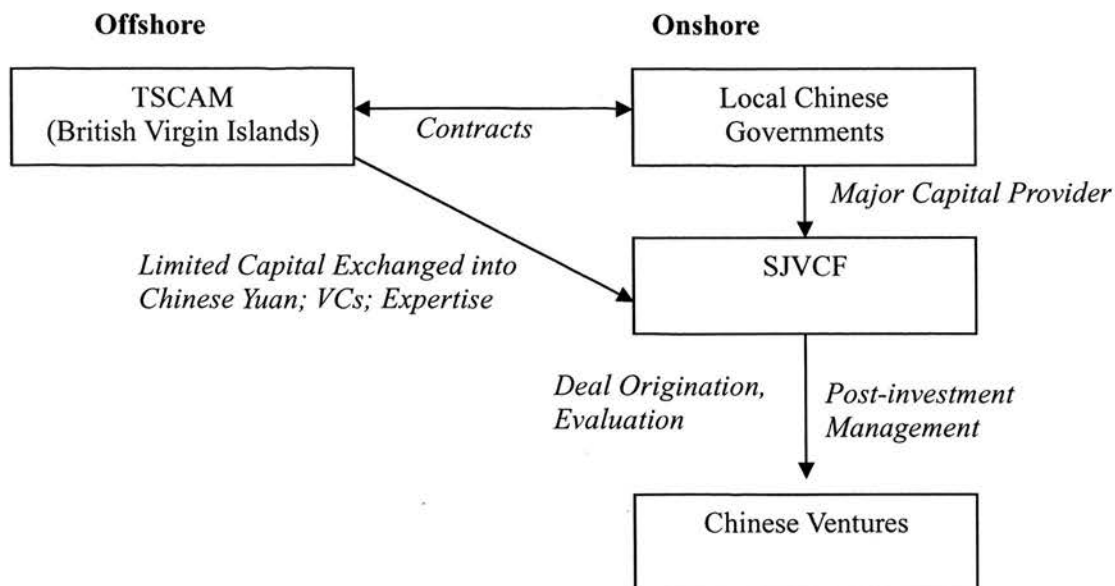


Figure 4.5 Play the Role as a GP in an Onshore Sino-foreign Joint Venture Capital Firm

Mode 6 – Play the Role as a GP in an Offshore Sino-foreign Venture Capital Firm

In comparison with mode 5, the SJVCF in mode 6 is registered offshore and legally protected under foreign jurisdiction. As in mode 5, foreign venture capital generally plays a role similar to a GP and Chinese investors or fund of funds the LPs.

Under this model, the main capital contributor is not confined to (local) Chinese governments but extended to international fund of funds or large-scale Chinese companies with foreign reserves, etc., as illustrated in Figure 4.6.

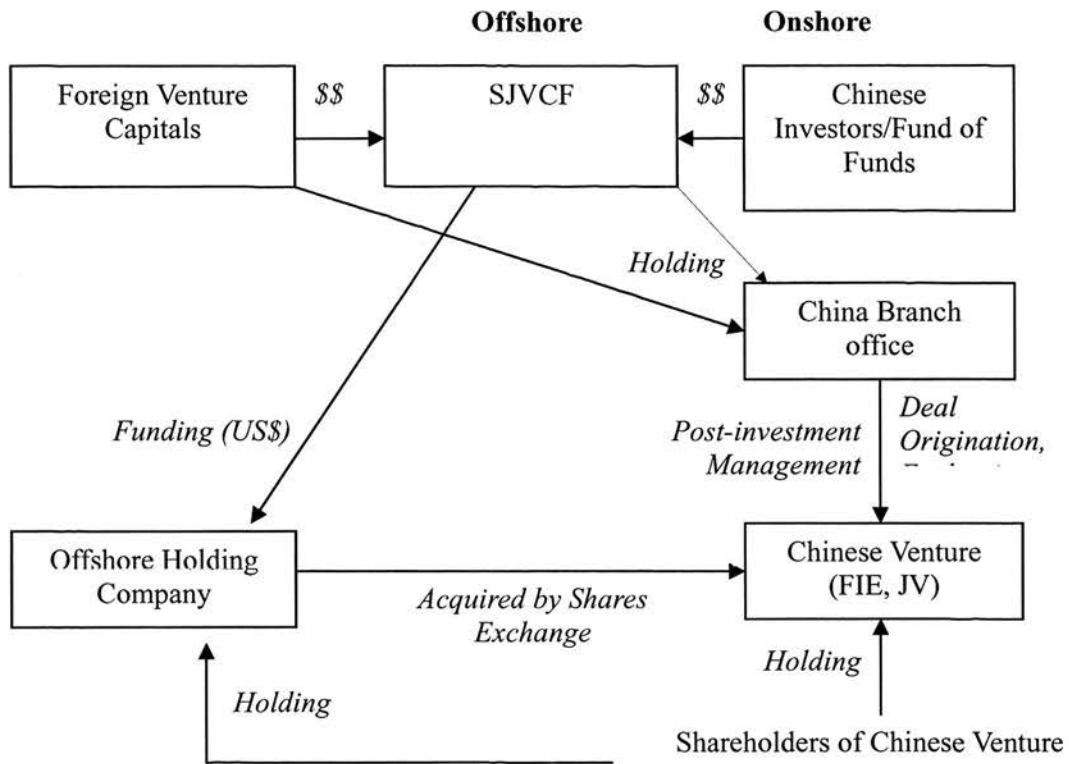


Figure 4.6 Play the Role as a GP in an Offshore Sino-foreign Venture Capital Firm

Mode 7 – Establishing a Virtual Sino-foreign Joint Venture Capital Firm (VSJVCF)

VCJVCF is one of the choices of foreign venture capitals to expand the flexibility of exit and exploit local experience of Chinese partners. “Virtual” is so structured that a Sino-foreign joint venture capital firm does not exist substantially but practically perform the functions. For example, Acorn campus possessed US dollars while Shanghai City Government held Chinese Yuan as shown in Figure 4.7.

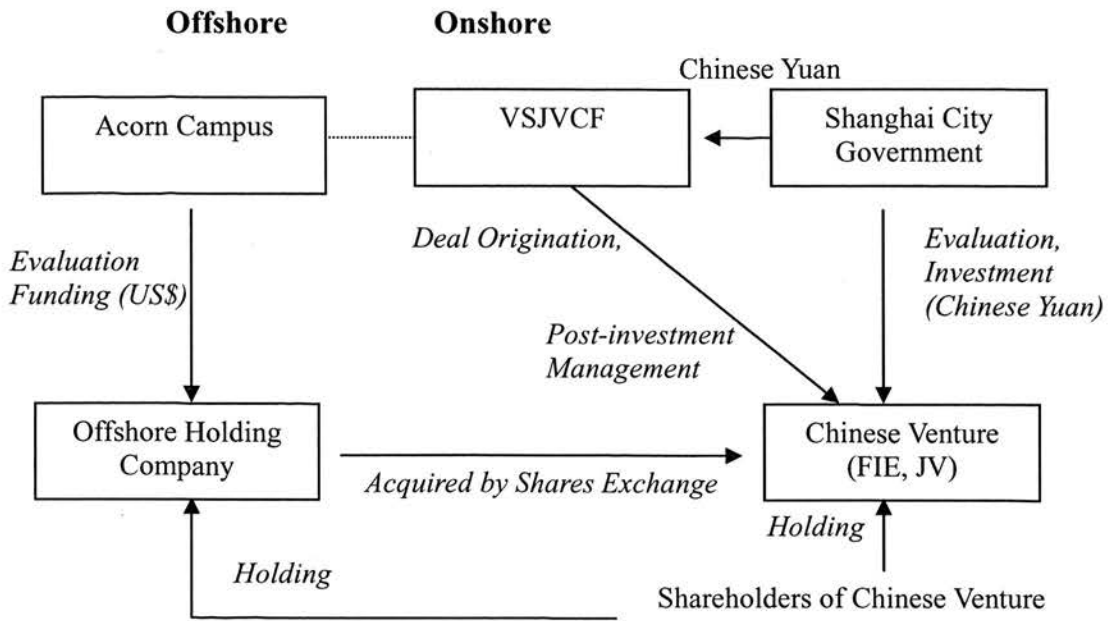


Figure 4.7 Establishing a Virtual Sino-foreign Joint Venture Capital Firm (VSJVCF)

Under this model, both parties were bound to set up a VSJVCF co-operated onshore for investment and post-investment management activities and investments were only made upon mutual agreements. Acorn Campus invested in the offshore company with US dollars, while the Shanghai City Government invested in the onshore Chinese venture with Chinese Yuan. After acquisition by shares exchange, the onshore Chinese venture became a foreign-invested enterprise/joint venture. The offshore holding company can be used as a carrier to list on an overseas capital market.

Mode 8 – The Derivate of VSJVCF Model

The derivative of VSJVCF model explains how foreign venture capital funds are managed by Chinese VCs. For instance, Shenzhen Capital Group was renowned for its sound performance for the period of 1994 and 2005 in which IRR reached 35.4% (Zero2IPO Research Centre 2006) and for its strong

local connections. As shown in Figure 4.8, Shenzhen Capital Group was commissioned to manage a US dollar fund raised by Singaporean United Overseas Bank (UOB) registered offshore. Shenzhen Capital Group also simultaneously raised a Chinese Yuan-denominated fund registered onshore. The investment category and selection values were negotiated and stipulated in the contract. Both funds were under the management of VSJVCF deployed by Shenzhen Capital Group. Management team of VSJVCF was granted to make independent investment judgment with either currency that best suited the candidates. Profits are shared between the two parties according to pre-determined ratios and conditions.

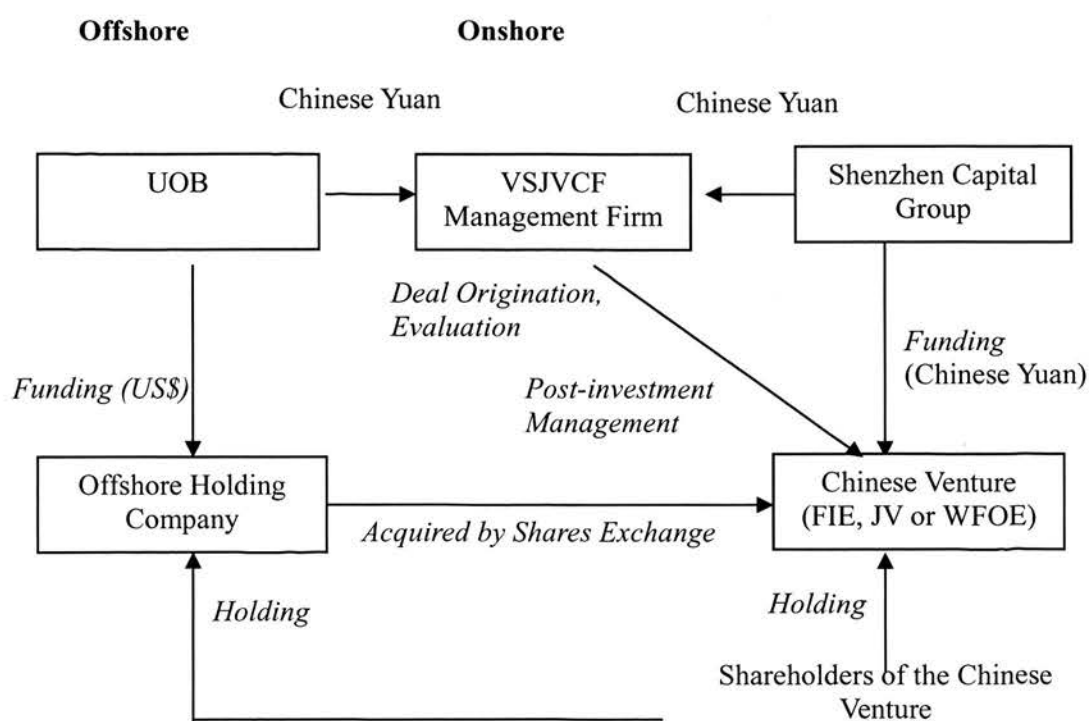


Figure 4.8 The Derivate of VSJVCF Model

There are three major differences between Mode 7 and 8. Firstly, the incorporation of a wholly-foreign owned enterprises (WFOE) registered onshore is not possible in Mode 7. Secondly, the foreign venture capital fund in Mode 8 is under the wholly management of Chinese partner, while

investment decisions can only be reached upon mutual agreement in Mode 7. Thirdly, Mode 7 requires both foreign venture capital (with US dollars) and its Chinese partner (with Chinese Yuan) inject capitals into ventures while the VSJVCF in Mode 8 can invest in either currency in its best interests.

Mode 9 – A Joint Venture Capital Fund between Foreign Government and Chinese Government

Foreign governments started to co-initiate Sino-foreign venture capital funds with Chinese (central) government since the mid-90s' based on Zero2IPO China Venture Database. These funds are all established for both diplomatic and economic cooperation motives. Currently, there are only three such funds: Sino Swiss Partnership Fund (SSPF), Sino Israel Fund and Haitong-Fortis Private Equity Fund (China-Belgium). As investment proceeds are reinvested into the fund i.e. revolving funds, they have no fixed term of duration.

Shown as Figure 4.9, for example, SSPF was set up in 1997 with an initial fund size of CHF93.75M, with the Swiss government putting up 80% of the capital which was translated into Chinese Yuan. While it is characterised as a "partner" fund, it does not operate like a limited partnership organisation. China development bank is the fund manager, responsible for deal origination, evaluation, post-investment management activities and preparation of investment reports. All investment and liquidation decisions are made by the investment committee in cases where the Swiss own more-than-half votes. Further, the investment candidate must conform to the pre-determined industry categories in business between China and Switzerland. The other two such funds have similar operational structures and selection criteria.

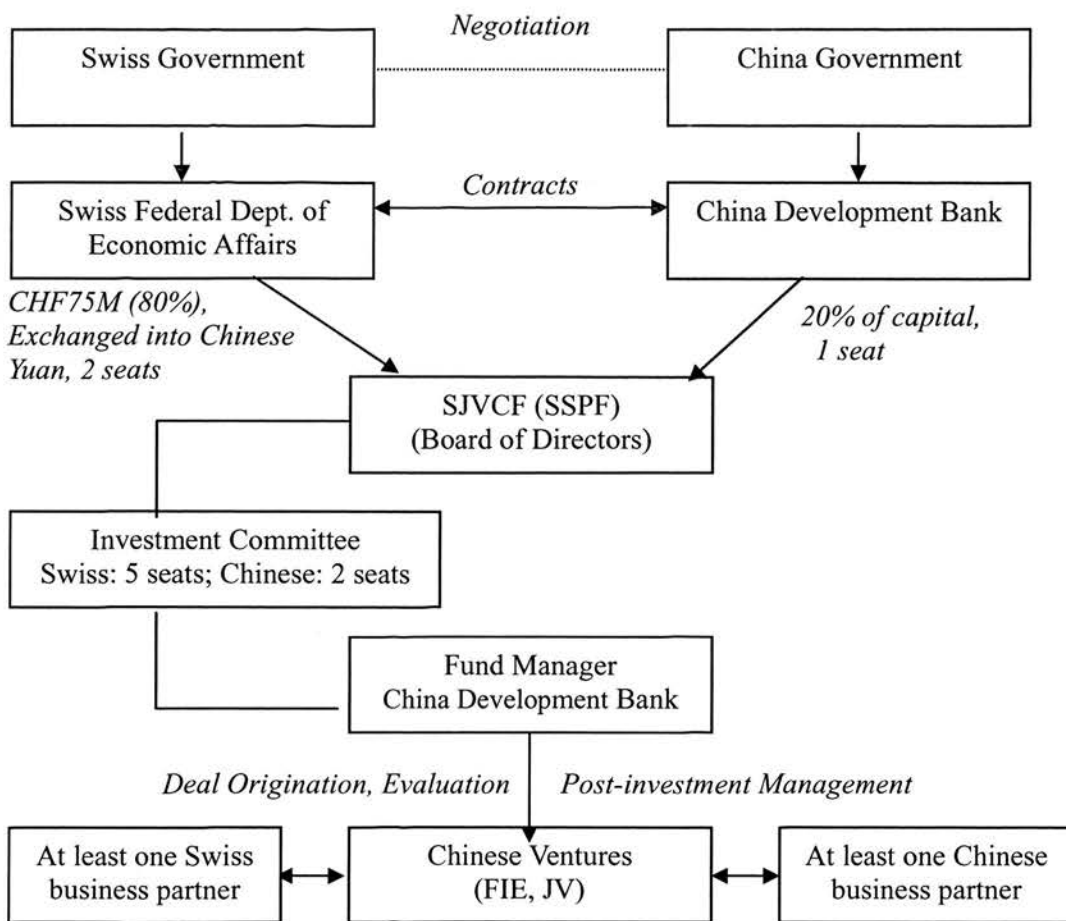


Figure 4.9 A Joint Venture Capital Fund between Foreign Government and Chinese Government

Mode 10 – “Tourist” Venture Capital Investment

Those foreign venture capital funds that do not have any China office and management team but simply count on frequent visits to China to conduct investments are often described as “tourist VCs”. Some “tourist VCs” even rarely “travel” to China. Rather, they establish and manage their exposure in China simply through their partners in China, including other foreign venture capital investors, legal councils and auditing houses.

To sum up, three essentials/characteristics emerge that can distinguish

amongst the above ten entry modes of foreign venture capital: (1) whether the foreign venture capital has a Chinese partner or not; (2) who is entrusted to manage the firm i.e. who determines the decision-making value and/or how they are decided? (3) whether the fund/firm is registered onshore, offshore or as a virtual entity. The ten entry modes are summarised accordingly in Table 4.1.

Table 4.1 Summary of Entry Modes of Foreign Venture Capitals

Mode	Type of Ownership	With a Chinese Partner or not		Decision-making values			Registered Onshore, Offshore or Virtual Entity		
		Yes	No	Mixed	Foreign	Chinese	Onshore	Offshore	Virtual
1	FVCF		✓		✓			✓	
2	FVCF		✓		✓			✓	
3	FVCF		✓		✓		✓	✓	
4	FVCF		✓		✓			✓	
5	SJVCF	✓		✓			✓		
6	SJVCF	✓		✓				✓	
7	VSJVCF	✓		✓					✓
8	VSJVCF	✓				✓			✓
9	SJVCF	✓		✓			✓		
10	FVCF		✓		✓			✓	

In discriminating amongst the various entry modes, foreign venture capitals can be divided into two categories: FVCF and SJVCF. The virtual Sino-foreign joint venture capital firm (Mode 7 & 8) is grouped into SJVCF, because whether it is formally registered does not affect the decision-making

value of venture capitalists.

Chinese venture capital firms are re-divided into GVCF and NGVCF based on the degree of government influence over the fund/firm. The degree of government influence on the investment activities, especially deal origination and investment decision making, is measured by the ratio of government shareholding. More importantly, to avoid classification errors resulting from subjective classification, the results of initial classification were also presented to interviewees for further confirmation. Thus venture capital firms investing in China can be objectively reclassified and defined as the following four categories:

1. *Foreign venture capital firm (FVCF)*: It is a wholly foreign-owned venture capital enterprise managed by foreign venture capitals. It can be registered onshore or offshore and established in any organisational structures, including limited partnership and limited company.
2. *Sino-foreign Joint Venture Capital Firm (SJVCF)*: A SJVCF, including VSJVCF, whether incorporated in the form of limited partnership or limited company, and registered onshore or offshore, is a venture capital enterprise consisting of at least a foreign venture capital investor and a Chinese partner where joint interests and responsibilities are stipulated in the contracts.
3. *Chinese Government-controlled Venture Capital Firm (GVCF)*: It is a venture capital enterprise consisting of Chinese investors where the Chinese (central/local) government exerts direct or indirect influence over investment activities. Generally, the Chinese government has relatively larger shares of holding in the firm in a direct or indirect way.

4. *Non-Chinese Government-Controlled Venture Capital Firm (NGVCF)*: It is a venture capital enterprise invested by Chinese investors, not limited to private or state investors. State interests in the firm are much smaller than the rest held by private Chinese investors. Government influence is therefore confined to the shares of holding (minority interests) or seat(s) in the board of directors.

The section analysed the ten solutions used by foreign venture capitals investing in China, based on the grounding results. Foreign venture capitals can avoid the legal barriers to setting a foreign venture capital firm, high domestic listing requirements, foreign currency translation and capital controls. In addition, foreign venture capital fund itself can be formed and managed in a foreign jurisdiction where the conventional structure can be applied. The essence of the investment structure is to utilise a foreign legal system to create certain investors' rights, which are not presented under Chinese laws and facilitate exits through the "red chip model" on foreign capital markets or trade sale.

The results also form the basis to properly classify venture capital funds operating in China into four categories: foreign venture capital funds (FVCFs), Sino-foreign joint venture capital funds (SJVCFs), Chinese government-controlled venture capital funds (GVCFs) and Non-Chinese government-controlled venture capital funds (NGVCFs). Such a classification and the analysis on how foreign venture capitals enter China – a transition economy has never been found in previous studies. The classification provides the solid basis for the understanding, analysis and comparison of investment criteria used by various types of VCs operating in China.

4.2 Measurement of Investment Criteria

4.2.1 Measurement of First-tier (Generic) Criteria Relative to Overall Accept/Reject Decision

The study employs dual methods - AHP and Delphi to investigate the preferences on the first-tier (generic) investment criteria of venture capitalists. The classification of China venture capital firms and self-designed programs constructed on Excel help classify the findings on the relative importance of first-tier investment criteria into the identified four categories. Take the computing process of FVCFs as an example, computation results shows:

$$\lambda_{\max} = 10.12, \text{ which satisfies } A\mathbf{w} = \lambda_{\max} \mathbf{w}.$$

The normalised eigenvectors $\mathbf{w} = (26.26\%, 12.61\%, 10.06\%, 10.47\%, 26.74\%, 5.05\%, 4.14\%, 3.61\%, 1.06\%)$

Moreover, C. I. is used to examine the consistency of the judgment matrix, where $C.I. = (\lambda_{\max} - n) / (n-1)$. R.I. is used to revise C.I, calculated as follows:

$$C.R. = C.I. / R.I. = \frac{\lambda_{\max} - n}{RI(n - 1)} = \frac{10.12 - 9}{1.4616(9 - 1)} = 0.09545 < 0.10$$

Therefore the matrix can be trusted as judgement consistency as C.R. is smaller than 0.10. The weights of the first-tier investment criteria of FVCFs on overall accept/reject decision is shown as Appendix III. Applying the same

computation process, weights of first-tier investment criteria of SJVCFs, NGVCFs and GVCFs can be derived as exhibited in Appendix IV, V and VI respectively.

The results are illustrated as the judgment matrix in Table 4.2. The AHP uses pair-wise comparisons to compare the nine first-tier (generic) investment criteria and then convert the initial verbal response of VCs into a 9-point linguistic scale. Paired comparisons are based on standardised evaluation scheme with 1 = equal importance, 3 = weak importance, 5 = essential importance, 7 = demonstrated importance, 9 = absolute importance (Please also refer to Table 3.1). For example, the Table shows that Managerial Capabilities is “moderately” favoured over Market Prospect by venture capitalists of FVCFs; Government Influence is “moderately” favoured over Exit; Product/Service Differentiation is “strongly” favoured compared to Financial Considerations or Guanxi; Shareholding Structure (of the vertical column) is “equally” favoured over Shareholding Structure (of the horizontal column) by venture capitalists of FVCFs.

Table 4.2 AHP Judgment Matrix of FVCFs

	Managerial Capabilities	Market Prospect	Product/Service Differentiation	Exit	Government Influence	Financial Considerations	Shareholding Structure	Guanxi	Others
Managerial Capabilities	1	3	5	4	1/2	7	7	6	9
Market Prospect	1/3	1	2	2	1/3	3	3	3	9
Product/service Differentiation	1/5	1/2	1	1/2	1/4	5	5	5	9
Exit	1/4	1/2	2	1	1/3	3	3	3	9
Government Influence	2	3	4	3	1	4	6	6	9
Financial Considerations	1/7	1/3	1/5	1/3	1/4	1	2	2	9
Shareholding structure	1/7	1/3	1/5	1/3	1/6	1/2	1	2	9
Guanxi	1/6	1/3	1/5	1/3	1/6	1/2	1/2	1	9
Others	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1

4.2.2 Measurement of Second-tier (Subordinate) Criteria Relative to Ruling First-tier (Generic) Criteria

Conjoint analysis, aided by SPSS(13) (the module “category”), is utilised to analyze the relative importance of second-tier investment criteria. A Syntax document is helpful for the conduct of SPSS(13) Conjoint in this research. Syntaxes are established to calculate the weights of subordinate (second-tier) criteria on the respective ruling generic (first-tier) criteria. The function “Syntaxes” allows the researcher to save jobs in a syntax file so that analysis can be repeated at a later time. For example, the syntax document for the generic criterion – “Managerial Capabilities” is compiled as follows:

```
Conjoint
Plan='E:\cri01.sav'
/data='E:\cri01score01.sav'
/subject=No
/rank= p1 to p16
/plot=all
/util='E:\result.sav' .
```

Click “Run”, the weights of subordinate criteria on the ruling generic criterion “Managerial Capabilities” for FVCFs is shown as Table 4.3.

Table 4.3 Weights of Second-tier (Subordinate) Criteria on the Generic Criterion – “Managerial Capabilities”

Second-tier (Subordinate) Criteria	Weights
Team sense of business environmental risks	6.90%
Outside appraisal of entrepreneur	19.59%
Relevant experience and recognised expertise of team	24.42%
Administrative skills of team	30.48%
Leadership potential of entrepreneur	18.61%

Weights of each subordinate criterion on their respective generic criteria can be all computed repeating the “Syntaxes” process for the four categories.

4.2.3 Measurement of Second-tier (Subordinate) Criteria Relative to Overall Accept/Reject Decision

The results of data processing, as described in sections 4.2.1 and 4.2.2, demonstrate the relative importance of first-tier (generic) investment criteria and that of second-tier (subordinate) investment criteria to the respective ruling generic criteria. The next step is to calculate the importance of each second-tier criterion relative to the whole evaluation system at the top i.e. the accept/reject decision of venture capitalists. For example, the importance of “Team Sense of Business Environmental Risks”, subordinate to the generic criterion “Managerial Capabilities”, to the accept/reject decision of venture capitalists of FVCFs is calculated as $6.90\% \times 26.26\% = 1.81\%$. The importance of each second-tier investment criterion relative to the accept/reject decision of VCs in FVCFs can be obtained repeating the same calculation method.

4.3 Results Discussion and Comparison

The complete measurement of investment criteria and their respective weights and rankings are shown as Appendix III, IV, V and VI. Table 4.4 summarises the ranking/weights of investment criteria on overall accept/reject decision of venture capitalists. The Table exhibits that Managerial Capabilities is the most important first-tier (generic) investment criteria (24.85%) for the overall accept/reject decision of venture capitalists of SJVCFs, while Government Influence (26.74%), Shareholding Structure (25.04%) and Guanxi (25.95%) are most essential to venture capitalists of FVCFs, NGVCFs and GVCFs respectively. The results are analysed and expounded respectively.

Table 4.4 Summary of Weights/Ranking of Investment Criteria on Overall Accept/Reject Decision of Venture Capital Firms

Accept/ Reject Decision	First-tier Criteria	Second-tier Criteria	FVCFs		SJVCFs		NGVCFs		GVCFs	
			Weights of First-tier Criteria	Ranking of Second-tier Criteria	Weights of First-tier Criteria	Ranking of Second-tier Criteria	Weights of First-tier Criteria	Ranking of Second-tier Criteria	Weights of First-tier Criteria	Ranking of Second-tier Criteria
		Team sense of business environmental risks		18		19	13		18	
		Outside appraisal of entrepreneur		8		18	24		16	
		Relevant experience and recognised expertise of team	26.26% (2 nd)	3	24.85% (1 st)	5	5	14.88% (3 rd)	9.00% (5 th)	25
		Administrative skills of team		2		2	10		26	
		Leadership potential of entrepreneur		9		3	6		14	
Market Prospect		Ease of market entry		5		9	14		22	
		A fast-growing market in several years	12.61% (3 rd)	11	11.35% (4 th)	8	9	4.73% (7 th)	20	
		Leadership in the market		16		17	7		21	
Product/service Differentiation		Product/service of distinction		24		13	15		2	
		Product/service margin	10.06% (5 th)	20	15.52% (3 rd)	22	20	20.19% (2 nd)	13	
		Proprietary product/service		4		4	21	7 th)	8	
		Related to the concept of "high tech"		14		12	17		7	
Exit		Possibility to exit during a tolerable period of time	10.47% (4 th)	10	19.10% (2 nd)	1	4.57% (4 th)	18	3.62% (8 th)	17

	Exit option practicable in the future		6	11	11	11	23
Government Influence	Government supported/protected industries	26.74% (1 st)	7	10	20.52% (2 nd)	3	11
	Free from government restrictions		1	7		4	10
Financial Considerations	Expected investment returns	5.05% (6 th)	15	16	12.59% (5 th)	16	4
	Level of venture equity valuation		17	15		2	3
Shareholding Structure	Background of venture shareholders		21	21		1	6
	Degree of involvement in venture	4.14% (7 th)	12	23	25.04% (1 st)	19	12
	Ration of venture stake		23	20		12	9
Guanxi	Referred by other connections other than government and fund investor		22	14		22	1
	Referred by fund investor other than government	3.61% (8 th)	25	25	4.93% (8 th)	25	15
	Referred by relevant government official other than fund investor		26	26		26	19
Others	Background of entrepreneur		13	6		8	5
	A proven business model in developed Economies	1.06% (9 th)	19	24	1.16% (9 th)	23	24

Government Influence

The study findings suggest that “Government Influence” is the most important criterion for venture capitalists of FVCFs and rates as the runner-up, sixth and sixth place among the first-tier investment criteria of NGVCFs, SJVCFs and GVCFs respectively. Breaking down “Government Influence”, “Free from Government Restrictions” is most valued to the accept/reject decision of FVCFs, while it ranked the 4th, 7th and 10th in NGVCFs, SJVCFs and GVCFs. It is not surprising that venture capitalists of FVCFs view “Government Influence” as the most important criteria, as foreign investments in China are all guided by the Catalogue for the Guidance of Foreign Investment Industries, amended in 2006, which classifies Chinese industries against foreign investments into three categories: the “Encouraged”, “Restricted” and “Prohibited” (Kang 2007). Many popular industries of venture capital investments in developed VC markets including Internet portal, media, retailing, telecommunications, etc. and those defined as “national industries”, are either restricted or prohibited from receiving foreign capitals. Therefore FVCFs created a new investment structure to circumvent the rules, as exemplified by the entry Mode 2. As said by the investment director of Intel Capital (FVCF), China:

“.....Although we have successfully created the investment structure to invest in Sohu.com and skilfully evade the monitoring of Chinese regulations, it does not guarantee that this structure will still work next time... What if a new regulation were to be released tomorrow and be given retroactive effects? Therefore you have to abort your current investment structure? So, it is better not to offend Chinese laws or walk the razor’s edge...”

Furthermore, most GVCFs and NGVCFs are incorporated in the form of a limited company rather than a limited partnership. In GVCFs, most investments are made under the guidance of government policy because such investments are considered as strategic or conducive to long-term national welfare. In addition, investing in “Government Supported/Protected Industries” implies the latent benefits both the investor and investee will receive. For example, a venture in an industry supported/protected by government policy can enjoy a beneficial tax rate for a certain period of time and be provided with preferential rents in land that facilitates acquirement or even direct financial subsidy, while the investor will also enjoy tax deduction or refund up to 70% of total investments. As well, taxes paid at the firm level will not be double taxed at the individual level according to the newly issued Regulations on Venture Capital Investments. Therefore fund investors of NGVCFs (mostly private-owned enterprises and rich individuals) regard it as a legal and effective tax dodging option and it is one of the most important criteria (3rd) for NGVCFs. Such a preferential policy is most straight forward from a financial management standpoint.

In addition, the fact that rankings of “Government Influence” in NGVCFs, SJVCFs and GVCFs are not as high as FVCFs does not imply it is less important, but rather a reflection of the background of funds and the basic values in communist China. As explained by the Investment Director of Shandong High Tech Investment Co. Lt.:

“...It is funny to ask if we care about government restrictions. We are funded by the government. We will never go beyond the bottom line...”

This viewpoint has been acknowledged by almost all VCs in China no matter what type of venture capital firms they belong to. That is to say, investing in ventures of industries supported/protected by the government and keeping a distance from those prohibited is a central premise for all Chinese individuals or companies while it is a must-have lesson for FVCFs. In comparison, the first-tier criterion “Government Influence” was also mentioned in the study on Poland by Bliss (1999), however, with different connotations. Bliss argued that government’s involvement in a deal as a “yellow flag” i.e. a signal that the quality of the deal is poor, while GVCFs in China are generally guided to invest in government-supported projects which will be beneficial to national/local welfares. Advanced projects aimed at next generation technology are generally supported by related government organisations, universities or research affiliates. The common characteristics of these ventures are that they are generally developed in the seed or start-up stage, located in government-funded science parks and receive direct government subsidy or equity investments. With these preconditions, these ventures tend not to accept the term sheets offered by FVCFs and NGVCFs but will more readily accept those of GVCFs. If the venture conforms to the essential requirements of SJVCFs established between the Chinese government and foreign governments, they may also be invested in by SJVCFs through the referral of related government organisation. For example, Sino Swiss Partnership Fund (SSPF) is commissioned to invest in ventures which contribute to the technology communication and economic developments between China and Switzerland. Hence ventures comply with the requirements may be referred to SSPFs.

Managerial Capabilities

“Managerial Capabilities” is composed of five second-tier criteria “Team Sense of Business Environmental Risks”, “Outside Appraisal of Entrepreneur”, “Administrative Skills of Team” and “Leadership Potential of Entrepreneur”. The importance of “Managerial Capabilities” to the accept/reject decision of VCs has been often stressed in past studies in various terms or phrases as reviewed in Chapter Two. In this study, the importance of “Managerial Capabilities” is also validated in FVCFs (2nd), SJVCFs (1st) and NGVCFs (3rd) among the nine first-tier criteria. Particularly, the weight of “Administrative Skills of Team” ranked second among all second-tier investment criteria for both FVCFs and SJVCFs.

In fact, interviewed venture capitalists of FVCFs were either directly trained in the US (15.56%, 7/45) or educated to follow investment disciplines of US (62.22%, 28/45) or other fund-originated countries (22.22%, 10/45). Therefore the results are consistent with the findings on Managerial Capabilities in past studies based on developed (US) markets and a recent report suggesting that 80.94% of total foreign venture capital pool available for investment in mainland China is from the US (Zero2IPO Research Centre 2007). Moreover, although SJVCFs may differ from FVCFs in terms of incorporation forms, contract structure binding GP and LP, deal sources, investment decision making structure etc., SJVCFs are mostly managed by foreign partners (few are managed by Chinese partners) due to the lack of local investment talent and greater trust based on the longer track record of foreign partners. Thus the finding that venture capitalists in SJVCFs place such high value as FVCFs on “Managerial Capabilities” is not surprising.

In comparison, findings show that “Managerial Capabilities” ranks only the 5th, behind “Guanxi”, “Product/Service Differentiation”, “Financial Considerations” and “Shareholding Structure” in GVCFs. GVCFs in China

are mostly investment affiliates to local governments. Financial rewards and management team are usually not first considered by GVCFs when making investment decisions as the company incorporation constitution generally states that promoting the social welfare and economic development of the nation/province/municipal city are of the utmost importance. Senior management of SOEs are often appointed directly by the government, rather than professional managers. Consequently the quality of management is not the main concern for GVCFs. As stated by the investment director of Beijing High Technology Venture Capital Co. Ltd. (GVCF),

“.....Generally investments are made through direct reference from my boss or other government organs. ...For example, my boss said he was referred a case in the opto-electronics sector which is very much supported by Beijing Municipal Science and Technology Commission in Chongguangchun (Beijing)... Sometimes I felt easy to make an investment decision because personal judgment is unnecessary...”

Market Prospect

Findings show that “Market Prospect” ranked the 3rd, 4th, 6th and 7th of the nine generic criteria by FVCFs, SJVCFs, NGVCFs and GVCFs respectively. FVCFs are burdened with targets like financial rewards and NGVCFs (mostly funded by private enterprises and rich individuals) market share consolidation or advanced technology acquisition required by their fund investors. Particularly, “Ease of Market Entry” and “Leadership in the Market” are more stressed by FVCFs (the 5th) and NGVCFs (the 7th) respectively among the 26 second-tier investment criteria. The managing partner of Sequoia, China (FVCF), stated:

“...We invested in many promising ventures and were rewarded with handsome returns since our inception in China, such as Ctrip and Home Inn. Many of them are non-TMT (Technology, Media and Telecommunication) companies...We see non-TMT opportunities will bring rich rewards for us in the next several years just like TMT...The points is whether the candidate has its own obvious advantage over other competitors in any forms. Such an advantage should be strong enough to prevent from replication for a certain period of time. You know, too many copies in China...”

Similar viewpoints on “Ease of Market Entry” and “Leadership in the Market” are also shared by other FVCFs, including the managing partner of IDG (FVCF), the partner of CDH (FVCF), the managing partner of Integral Group (FVCF) and China’s chief representative of JAIC.

Supporting the evidence above, the investment director of Founder Capital (NGVCF, the investment arm of Founder Electronics) described their investment strategies as follows:

“...We are funded by Founder Electronics, so our guiding policy is to invest in a venture with advanced technology or significant market status/share relevant to our group business scope. Investments should be conducive to future group business expansion...”

Product/Service Differentiation

The “Product/Service Differentiation” segment is composed of

“Product/Service Distinction”, “Product/Service Margin”, “Proprietary Product/Service”, and “Related to the Concept of High-tech”. Although China has signed a series of the international treaties on the strike against plagiary on intellectual property rights and greatly revised its Patent Protection Law in 2000 in order to tally with the requirements of WTO, the criticism from China’s trading partners regarding China’s poor protection of intellectual property rights continues. This is evident when considering that any new film recently produced in Hollywood, whether it is officially published in China or not, will be available in DVD in most shops around the debut. The fashion of plagiary can also be found in many social and economic aspects from world branded wallets to new business models. A combination of factors are suggested for such plagiarism phenomenon in China, that include a prevailing lack of respect for intellectual property, a weak regulatory system against plagiarism and miniscule penalties and punishment for pirates and counterfeiters (Chia-Yueh Liao 2005). Therefore “Proprietary Product/Service” ranked fourth of all second-tier investment criteria by both FVCFs and SJVCFs. As stated by the former managing director of Intel (FVCF) on Intel’s investment policy:

“...There are many opportunities undiscovered from the traditional sector to TMT (technology, media, and telecommunication) in China. However, we invest mainly in start-ups in TMT for both proprietary products or technology and handsome financial returns. And the former will be helpful for the competitiveness of the whole Intel group. It is also one of the most important criteria we hold...We want a technologically advanced venture with lead time in the prototype of product or technology at least one year ahead of its competitors.... ”

However, findings show that both FVCFs and NGVCFs do not attach high importance to the criterion “Related to the Concept of High-tech”, which ranked the 14th and 17th among all second-tier investment criteria. Literature suggest that a combination of factors that may contribute to this finding, that include weak protection of intellectual property of high-tech products, an inferior competing position to access spin-offs of research and university institutes possessing compelling technology or products and the lack of global competitiveness of Chinese enterprises (China Science and Technology Development Report 2005, 2006). Findings, however suggest that the main reason is the relatively low level of economic development with many investment opportunities hidden in non-high-tech or traditional industries. The Partner of Granite Global Ventures (FVCF) stated:

“...There are numerous investment opportunities in both TMT and non-TMT areas because China is rather immature in the level of economic development compared to the US. It may take 30 years or even longer to catch up with the US at the individual wealth level, while the national economy scale may be much larger than the US by then. During the transition, China will gradually develop its mature service and traditional industries, not only high-tech companies...That is why we invest more than half of our fund money in non-TMT ventures in the first half year (2007)...”

In comparison, venture capitalists of GVCFs are usually guided to invest in government-supported projects, which are characterised by high-tech or next-generation concepts (Wang 2004). This phenomenon is also verified in the findings on the selection value of GVCFs. “Product/Service Differentiation” ranked the 2nd place among the nine first-tier investment

criteria of GVCFs, because government-initiated projects are the main investment candidates. Many of these projects are “Related to the Concept of High-tech” (ranked the 7th among the 26 second-tier investment criteria).

Exit

The “Exit” category comprises two subordinate criteria – “Possibility to Exit during a Tolerable Period of Time” and “Exit Option Practicable in the Future”. Findings on the entry strategies of foreign venture capitals suggest that most SJVCFs or VSJVCFs are partnered with Chinese governments or related organisations as discussed in Mode 5, 6, 7 and 8. In most SJVCFs where the Chinese partners act as fund investors, investment capital of the Chinese side is generally invested by government projects or yearly budgets based on the joint venture capital firm’s partnership initiation plan and development goals (Zhuang 2003). The SJVCF is obligated to report the operation results periodically to both sides. In order to meet the fund schedule predetermined by two sides, venture capitalists of SJVCFs are more strongly directed to liquidate all investments by the fund termination date for they are mostly project or budget-based, except for the three SJVCFs co-initiated by Chinese government and foreign governments with both diplomatic and economic cooperation motives, than the other three types of venture capital firms. The Chinese bureaucratic system is also featured by such a strong reporting tradition (Zhuang 2003). Therefore SJVCFs place “Exit” and “Possibility to Exit During a Tolerable Period of Time” as the most important generic and second-tier investment criteria respectively.

Findings show that FVCFs rank “Exit Option Practicable in the Future” the 6th among 26 second-tier investment criteria. As discussed earlier, as most FVCFs generally register their venture capital firms offshore but count on a

representing office and team with foreign venture capital practice to conduct investment activities, the “red chip” model is viewed as an effective option to exit from investments in China. However, newly released regulations, such as the Circular 10, and administration system and time constraints have all brought about huge uncertainties or even a threat to their investments in China. The managing partner of iDTech (FVCF, investment affiliate to Acer Computer), identified the intention of the Chinese authority and their countermeasures in this context as follows:

“...Circular 10 has almost pushed foreign venture capitals to an dead end. Lawyers serving the trade and all foreign VCs are all very worried about it. What the government intended to do is firstly to keep Chinese companies, especially those with nation-wide reputation or state shareholdings, to list on A share market (domestic stock market with trading currency the Chinese Yuan in contrast to B share market with trading currency the US dollars). Second, the government hopes to indirectly foster the competitiveness of Chinese venture capital firms, including both NGVCFs and GVCFs, against FVCFs...For now, the best solution is to find Chinese ventures that have already set up overseas shareholding structure with which we still can exit through overseas IPO. In the next round, we consider raising a Chinese Yuan-denominated venture capital fund from local LPs and registering onshore, although it is much harder than raising funds from overseas LPs. Therefore we can exit through domestic capital markets....”

A number of the researcher’s observations as a venture capitalist are relevant to this discussion. Before the promulgation of “Circular 10, FVCFs generally sought for overseas listing through the “red chip model”. Today, many venture capitalists of FVCFs often ask entrepreneurs the question

when they first meet: “Have you established an offshore shareholding vehicle in Cayman Islands?” This question indirectly suggests the dilemma faced by FVCFs and the importance of a viable option for a future exit. In the long run, FVCFs will consider raising onshore funds denominated in Chinese Yuan from local sources which are hopefully still managed by foreign VCs. In addition, as China Company Law only permits venture capital investments in common shares of Chinese companies. Many frequently used options of equity certificate viable for venture capital investments in developed VC markets, including preferred shares, convertible bonds, conditional loans, and convertible preferred, are not presented in the Chinese context. Hence the downside risk of venture capital investors is greatly escalated.

Financial Considerations

The category of “Financial Considerations” consists of “Expected Investment Returns” and “Level of Venture Equity Valuation”. Findings are rather surprising that GVCFs have stressed so much the importance of these two criteria, which seem to be in conflict with their investment decision making style - a top-down management system where venture capitalists generally follow government policy and internal referral system for deal origination and investment decision. The explanation is that how thoughts and behaviours of an individual in SOEs are affected by the bureaucrat tradition under a Communist ruling system, as explained by the investment director of CITIC Capital (GVCF):

“...As a loyal member of the Communist Party, I even organised the Communist branch unit for CITIC just like every SOE... Under the Communist

system, we annually review the performance of each employee every year. If you perform well, you will be given credits and the honour "A Distinctive Person". If you hope to get promotion, you have to show the Communist leaders "how good you are". But, it is not only about you. It means you need to do your job good enough to let your boss and the company feel "you mian zi (be given the face or pride)"...What I do is that I usually encourage our investment managers to bargain with ventures or their shareholders on the investment price though we may be already decided to invest in that venture...If our overall performance is good at the end, I will feel "you mian zi". If I am rewarded, I will share it with my staffs as well...For staffs of junior level, what they care is whether they are "A Distinctive Person" while I care if I have the "mian zi". ..."

The above statement suggests that personal promotion in a communist system, including GVCFs, is usually based not only on personal accomplishment but also on "mian zi" incurred on the organization and the "boss".

In comparison, findings identify "Level of Venture Equity Valuation" as the second most critical criterion for NGVCFs among the second-tier investment criteria to their accept/reject decision. The reason suggested for this finding is that NGVCFs are generally funded by Chinese private enterprises and rich individuals who tend to haggle over every financial performance index of funded firms (Zero2IPO Research Centre 2005, Kang 2007). The founder, president and board chairman of Shenzhen Fortune Capital (NGVCF) testified as follows:

"...Before I became a VC, I worked for the Chinese government...Shenzhen

Fortune Capital now have two funds. Fortune I is inveted by several Chinese listed and unlisted companies. We started to raise money from some rich individuals for Fortune II.... Now I feel more pressure to make money, lots of money, than the time when I work for SOE...We have to deliver reports to our investors every three months, recording our investment performance, every penny we spent and every new deal invested. Just like those foreign venture capital firms..."

Shareholding Structure

Overall, findings show that "Shareholding Structure" is not highly rated by FVCFs and SJVCFs, yet it is the most important first-tier criteria for NGVCFs. The suggested reason is that many NGVCFs are given strategic assignments and the investment candidates may be involved with various kinds of business relationships (Guanxi) or strength that fund investors would value and need. The criteria "Background of Venture Shareholders" is hence viewed as the most important criteria among all second-tier criteria. Such a business relationship is also one of the basic concerns (6th) of GVCFs. The Investment Director of AnCai High-tech Investment Co. Ltd. (NGVCF, the investment arm of AnCai Group, one of the largest flat-panel TV producers in China) stated:

"...We are assigned the mission to invest in ventures that will help the vertical and horizontal expansion of the group in technology research & development, sales channels or market share. However, we do not have political connections to acquire all the resources we need. Through every transaction, we hope to establish some sort of alliance relationship with other shareholder(s) of the candidate and expand our business network. It is one of our basic selection principles..."

Findings also suggest that GVCFs generally do not want to conduct syndication investments with FVCFs or NGVCFs for the many differences in nature, such as investment values, fund origins, incorporation structure, etc. One respondent stated:

"We generally do not co-invest in a venture with foreign or private investors....They are very different from us in nature, such as investment values, fund investors, incorporation structure..."

It is important to note that the criterion of "Background of Venture Shareholders" has not been identified or discussed in past studies.

Guanxi

The generic criterion "Guanxi" is broken down into "Referred by Relevant Government Official Other Than Fund Investor", "Referred by Fund Investor Other Than Government", "Referred by Other Connections Other Than Government and Fund Investor" and "Background of Entrepreneur". Findings show that GVCFs view "Guanxi" as the most important generic criterion among all first-tier criteria and the rankings of its subordinate criteria are also higher than those of other types of venture capital firms. This is the first time that "Guanxi" overall has been recognised in the accept/reject decision of venture capitalists. In comparison, the importance of "Guanxi" to the accept/reject decision of FVCFs, SJVCFs and NGVCFs is not significant among the nine first-tier investment criteria. In addition, the findings on the entry modes of foreign venture capitals, as

summarised in Table 4.1, indicate that the decision values of FVCFs remain “foreign” and that of SJVCFs is mixed. This result connects to the fact that there is not any previous studies, as reviewed in the literature, on other VC markets suggesting “Guanxi” an important criterion to the accept/reject decision of venture capitalists. In addition, as discussed earlier, NGVCFs are mainly funded by rich individuals and/or non-Chinese government-controlled organisations. Therefore the finding can be interpreted as the consequence of their initial funding motives: they invest in venture capital fund pursuing either financial rewards or strategic targets of organisations, while relying on “Guanxi” may not help satisfy such goals.

Particularly, “The Ventures Referred by Other Connections Other Than Government Officials or Fund Investors” is most valued by GVCFs. “Other Connections” refer to the deals originated directly from government-supported projects or research institutes and universities. The suggested reason is that these candidates are generally located in local science parks established by local governments/municipal cities. Venture capitalists of GVCFs have generally the access to the database of ventures located in the respective province/municipal city (Venture Capital Development Report in China 2004). Investing in these ventures is basically a “yes” investment decision for venture capitalists of GVCFs from the standpoints of fund investors. Therefore “*the question is how to select ventures from the list consisted of hundred or even thousands of candidates.*” said the president of a Beijing XXX High-tech Investment Co., Ltd (GVCF) (respondent unwilling to disclose the company name). The respondent further stated:

“...From time to time, if I receive the invitation from titled government

bureaucrat(s) for a dinner in a fancy restaurant, then I knew there must be something needing my help... But you have to go (in order to give "mian zi"). Usually they will recommend a candidate to me in that occasion after 'the wine has been cheered three rounds' (means half drunk). Sometimes the entrepreneur was also invited, then it is even harder to reject. But if the venture is on my investment list, I will consider. If not, I will not reject them immediately, I will still say: I will consider about it... You know, we are strictly guided by our fund policy...I have lots of friends in the (local) science park, the universities and research institutes. They usually provide me the access to good ventures (on the list)...Most of my investments are done with their referrals..."

Findings show that the "Background of Entrepreneur" is also accented by GVCFs (5th), SJVCFs (6th) and NGVCFs (8th). One respondent pointed out: "Background of a person in China is often viewed a critical factor to the business success in China. "Having background" means you can get the Guanxi necessary to expand your business...". The recognition on background/Guanxi of a person explains why many multinational companies in China have invited well-known Chinese people with strong political connections as partners or consultants who usually have no experience in the industry. For example, Mian Heng Jiang, the son of the former general secretary of Communist Party Zemin Jiang, was invited to join Grace Semiconductor Manufacturing Corporation (GSMC), one of the largest IC makers in China founded by Taiwan industrial tycoon, Mr. Wenyang Wang, as group vice chairman when the company was established in 2003 (http://english.peopledaily.com.cn/200309/24/eng20030924_124848.shtml) Later, the company attracted substantial amounts of venture capital investments from Hotung Group, Global Investment Holdings, Global

Strategic Investment Fund, the angel Jia Cheng Li (the richest man of Hong Kong) and Silicon Storage Technology, etc (Zero2IPO China Venture Database). The president of Hotung Group (FVCF) commented on his investment value as follows:

“Although I wonder if he has the expertise and track record in the IC industry, with his (Jiang Zemin) background, you can imagine GSMC will be able to enjoy all favourable policy benefits, needed information and orders from government affiliates and even direct government subsidy. This is one of the most important reasons we decided to invest in GSMC...”

In addition, some venture capitalists frankly indicated that investing in an influential person is investing in their own benefits, such as the expansion of relationships with the Chinese authorities to render their investee companies more substantial help (mentioned by the president of China Science & Merchants (NGVCF), president of China Merchants & Fortune Assets Management Ltd. (SJVCF), or business developments in all dimensions (mentioned by director of AnCai High-tech Investment Co. Ltd. (NGVCF)), etc.

Others – “A Proven Business Model in Developed Economies”

This criterion has never been suggested in past studies on VCs’ investment criteria in both developed VC markets and transition economies. As foreign venture capitals investments account for 79% (Zero2IPO China Venture Capital Annual Report 2007) in 2007, this criterion is initially proposed by the researcher to test whether venture capitalists will invest in a

business model in China (a transition economy) that has been proved successful in other (developed) countries. Findings suggest that such assumption does not exist in China. The results show that investing in a venture that has been proved successful in a developed economy is least important to the accept/reject decision for all types of VCs in China. There are two arguments for this finding. Firstly, there is huge and cheap labour force in China. According to the National Bureau of Statistics of China, 620 million farmers, out of the total 850 million, living in the rural area with GDP per capita well below US\$200 dollars a year, hope to change their livings to manufacturing or service industries. The investment director of Qualcomm Ventures stated: *“those business models utilizing massive labour may not be less competitive than those of capital or technology intensive companies in China in the next three years, as China has huge and cheap labour force underdeveloped”*. For example, Blue Wave (BW) tried to replicate their successful experience in the chain operation of car wash in US and Taiwan into China since 2003, aimed at the fast growing middle class with cars. Therefore they invested in 520 sets of car wash machines with each set cost US\$30,000. According to their initial estimate, they will be able to recover all their investments in just six months if it is priced at 30 Chinese Yuan each car, at the turnover of 60 cars per machine set per day.

However, three months later after they began to serve in Shanghai, Beijing and Shenzhen, almost two times that of their total car wash stores emerged and priced at 10 Chinese Yuan each car. These competitors do not use machine but only labour. Their competitors brag about *“Hand-wash Gives Your Baby More Care”* targeting at BW’s business model. By Dec. 2007, only less than 60 sets of car wash machines are still running in China. The researcher suggests that BW is doomed to fail since they ignored the cheap

Chinese labour factor in establishing their business.

Secondly, there is a strong fashion of imitation in China. The institutional environment of China differs significantly from that of the West (Peng 2000, Boisot and Child 1996). Institutional factors have led to strong uniformity in VCs' behaviours (Fried and Hisrich 1994). The worries over the imitation behaviours have strongly influenced the decision values of venture capitalists operating in China on the assessment of "Me Too" business models (copies). Findings also suggest proven business models in developed venture capital markets do not guarantee the success in China due to the differences in institutional environments. Therefore it is not surprising that a duplicate of "A Proven Business Model in Developed Economies (ranked the last of all first-tier investment criteria)" in China does not draw the eyeballs of all types of venture capitalists. As stated by the managing partner of H&Q, Asia:

"If one business model succeeds in the US, there will be hundreds of copies in China in half a year".

Therefore, *"it is difficult to judge whether the venture we invest with YouTube or MySpace like model will survive in China, as there are over 500 companies doing the same thing"*, said Mr. Song, managing partner of IDG, China.

On the other hand, it can be argued that business models that survive in China do not guarantee they can be duplicated in developed economies. One respondent stated:

"...some business models initiated and have been proved successful in China

may not work well in the US. For example, we invested in Linktone providing downloads of ring tones and SMS (short message services) in 2000 when 70 million Chinese people had cellular phones. I observed that Chinese people like to send text messages instead talking directly over the phone due to the high rates using cellular phone...Today, people get much richer but I do not see any change in the habit of using text message...But I wonder if this model can be duplicated in the US as most people like to talk...."

Findings verify that such a "sheep flock" effect does not exist in the decision behaviours of venture capitalists operating in China, given that China has an institutional environment different from that of other countries (Peng 2000, Boisot and Child 1996). Therefore it can be inferred that the success of a business model developed in a developed economy may not be transferrable to a transition economy due to the discrepancy in institutional environments. However, it cannot be inferred that a successful business model is not transferrable between developed VC markets, especially between US and (Western) Europe, given the similarities in venture capital industry between the US and Europe have been found in previous research (Sapienza et al. 1996).

Chapter 5 Conclusion and Suggestion

5.1 Summary of Findings

The thesis aims to identify whether there are differences or similarities in investment criteria between those used by China venture capitalists and the broadly accepted investment criteria based on developed countries and other transition economies. The research employs both qualitative and quantitative methods to arrive at the saturation of each research question. As a venture capital practitioner, the researcher is very clear about importance of distinguishing the diverse entry strategies of foreign venture capitals before the study can truly classify venture capital firms operating in China and understand the difference and similarity of in-use investment criteria held between each venture capital ownership category. As there is no previous study focusing on this subject, the researcher adopted the qualitative method – grounded theory to solve this task. Based on the conclusion of broadly accepted investment criteria examined in literature review and the pilot study as well as the insights of the researcher, the research produced the initial set of investment criteria for further testing with both AHP and Delphi methods. With conjoint analysis, the research can distinguish the relative importance of the (first and second-tier) investment criteria in use for each venture capital category and avoid the self-reported bias to a large extent.

Research findings produced at each stage are all validated by

participants. Further, Cronbach Alpha coefficients obtained for the two questionnaires adopting AHP method and conjoint analysis are 0.8154 and 0.8367 respectively. Therefore both of questionnaires applied in this study can be regarded as “reliable”, according to Kerlinger (1986). However, the researcher suggests that sample size does matter to the replication of the research results, the proper classification of China venture capital firms and ultimately the success of this study. The key to conduct this research is that the researcher has strong personal connection/guanxi with venture capitalists operating in China and the influence of the Company (Zero2IPO Group) the researcher works with. As venture capital firms operating in China are divided into four categories, researcher should also consider the samples size of each category. Therefore, to replicate the study and to achieve external reliability researchers should first consider the issues of guanxi of researchers themselves.

5.1.1 Entry Strategies of Foreign Venture Capitals

To distinguish the entry strategies of foreign venture capitals is to accurately classify and define the ownership structure of foreign venture capital firms. With a proper classification, research findings can be compared between diverse categories and saturated at a deeper level. Studies focusing on developed countries have concluded broadly accepted investment criteria, as summarized in Table 2.2, while VCs’ ownership nature were ignored. Some argue that the reason behind is the highly standardized venture capital incorporation form and mature venture capital

profession and agencies (Guo 2008) in developed countries. However, such arguments need more evidence to support, for example, that the investment value of a venture capital firm affiliated to Intel, a large scale industrial firm investing for purposes of corporate expansion and/or technical acquisition, will be identical to that of Sequoia Capital, investing purely for financial motives. Moreover, other studies on transition economies, such as Poland (Bliss 1999), China (Guo 2008), Hungary (Karsai et al. 1997) and India (Wright et al. 2004), did not stress the importance of distinguishing ownership structure and classification of venture capital firms, while venture capitals are generally mixed of “foreign” and “domestic” incorporation forms in transition economies. Therefore whether the research findings based on developed countries or transition economies are truly a mix of all types of VCs’ investment value remains an unsolved issue.

This study argues that most foreign investors do not directly register venture capital firms in China. Instead, they register offshore in so-called ‘tax heaven’, such as Cayman, Bermuda and BVI, in the incorporation form of a limited partnership or limited company and simultaneously establish a branch office onshore and generally hiring investment experts of returnees with US venture capital practice to manage all investment and post-investment management activities in China, in order to avoid constraints of the inefficient domestic regulatory system (Guo 2008).

Findings from foreign venture capitalists and the understanding of the researcher from practical operation experience, the researcher suggest five reasons for this circuitous investment strategy. Such strategy is de facto the

product of the regulatory constraints as discussed in the literature review. Firstly, under such a model, the foreign venture capital fund itself can be formed and managed in a foreign jurisdiction where the conventional structure can be applied without the legal barriers and foreign exchange and capital controls.

Secondly, with overseas vehicles, foreign venture capitals can sell their interests through IPO on overseas markets i.e. the so-called “red chip” model or trade sale to overseas third parties for liquidation. Such an investment structure is therefore completed wholly in foreign currency (mostly US dollars) eluding the predicament involved with local currency (Kang 2007). Thirdly, domestic capital, including funds of Sino-foreign joint venture capital firms, is not allowed to invest in an offshore company, unless approved by Moftec. The reasons behind the control are that Chinese government policy encourages domestic listing and attempts to curb capital flights. In other words, if a foreign investor invests in a Sino-foreign joint venture capital firm, they should invest in an entity registered onshore with Chinese Yuan, while venture capitals invest in a Chinese venture registered overseas with foreign currency.

Fourthly, raising new funds in China for foreign venture capital investors is very difficult as the government policy still encourages using foreign capitals and therefore local LPs are reluctant to invest in foreign venture capital funds. In contrast, through the offshore holding structure, venture capital firms can freely raise new funds from worldwide LPs. At last, investing in an offshore company the intelligence property owned by

Chinese enterprises or individuals can be protected and freely transferred under foreign jurisdiction, while the intellectual property (IP) protection in China is still very weak (White et al 2000).

Overall, the diverse regulatory barriers in China have substantially affected the incorporation structure and entry strategies of foreign venture capitals (Kang 2007). Such barriers are associated with the socialist ruling system and beliefs.

In addition, findings suggest three reasons why foreign venture capitals choose to establish a Sino-foreign venture capital firm/fund instead a wholly foreign-owned venture capital firm. Firstly, it is to avoid political interference, such as Taiwan venture capitals. Secondly, it is to seek economic cooperation in China with both diplomatic and economic motives. Chinese government has established three such venture capital funds with governments of Switzerland, Israel and Belgium respectively. Thirdly, the purpose is to utilise the Guanxi of Chinese partners (Guo 2008) to originate deals, especially state-owned companies. Many venture capitals from US and Europe have adopted this strategy since the mid-90s' in order to bridge the gap in cultural and regulatory environments.

In comparison, Chinese venture capital firms, whether they are Chinese government-controlled or not, tend to only possess capital denominated in Chinese Yuan and are only allowed to invest in ventures registered in the mainland unless government approval is received. With these regulatory limitations, they usually seek exit through domestic capital markets or large scale assets and equity exchange centres located in first-tier Chinese cities

(Kang 2007). Further, some Chinese venture capital investors may seek to establish Sino-foreign joint venture capital firms with foreign counterparts because they generally lack the expertise of experienced venture capitalists to run a fully state-owned venture capital firm.

Under such a unique regulatory environment, ten distinct entry modes deployed by foreign venture capitals were identified and sent to participants for validation. The ten entry modes are stated as follows:

Mode 1 – The common entry mode. The investment structure is that a foreign venture capital firm is registered offshore and set up an onshore branch office and management team responsible for investment and post-investment management activities in China. This mode is most frequently adopted by foreign venture capitals.

Mode 2 – The Derivate of Mode One - Investing in a Restricted Industry. This strategy is the derivative of Mode 1 which explains how foreign venture capitals can invest in Chinese ventures of restricted industries, such as portals, media, some categories of Telecommunications, education, etc.

Mode 3 – Dual-currency Strategy Utilised by Investment Arms of Industrial Conglomerates. Investment arms of industrial conglomerates can be divided into two types by their investment purposes. For some industrial conglomerates invest purely for financial returns, their investment mode is similar to Mode One. While some others invest in China with development guidelines of their parent companies while minor financial incentives. These guidelines include consolidation of market share, utilisation of local

brainpower in research and development, or supply of key components. These two types of investment arms commonly generate revenues denominated in Chinese Yuan and venture capital funds registered outside China. Therefore they can invest in Chinese ventures registered either onshore (with Chinese Yuan) or offshore (with US dollars) in their best interests. The flexibility of dual-currency strategy and the possibility of being directly acquired by the parent conglomerate in the future have greatly increased the attractiveness of such foreign investors to Chinese ventures compared to other types of venture capital firms.

Mode 4 - Investing in Spin-offs of Research Institutes. This strategy is used by those foreign venture capitals interested in spin-offs of government projects, university or research institutes. Under this model a Sino-foreign joint venture registered onshore is established.

Mode 5 – Play the Role as a General Partner in an Onshore Sino-foreign Joint Venture Capital Firm. Under this model, the foreign venture capital holds minority interest in the onshore SJVCF but is entrusted to manage the firm like a general partner. Foreign venture capitals may utilise this strategy when they are subject to political constraints, like Taiwan. Under this model, equity interests or bonus can be transferred to the scientists/entrepreneurs as rewards to compensate for their contribution in the creation of intellectual property.

Mode 6 - Play the Role as a General Partner in an Offshore Sino-foreign Venture Capital Firm. In comparison with mode 5, the SJVCF is registered overseas and legally protected under foreign jurisdiction and invest with US

dollars. Under this model, the main capital contributor is not confined to (local) Chinese government, but extended to international fund of funds or large-scale Chinese companies with foreign reserves, etc.

Mode 7 – Establishing a Virtual Sino-foreign Joint Venture Capital Firm (VSJVCF). “Virtual” is so structured that a Sino-foreign joint venture capital firm does not exist substantially but practically perform the functions. VCJVCF is one of the choices of foreign venture capitals to expand the flexibility of exit and exploit local experience and connection of Chinese partners. Under this model, both parties were bound to set up a VSJVCF co-operated onshore for investment and post-investment management activities and investments were only made upon mutual agreements.

Mode 8 – The derivate of VSJVCF model. This model explains how foreign venture capital funds are managed by Chinese VCs. There are three major differences identified between Mode 7 and 8. Firstly, the incorporation of a wholly-foreign owned enterprises (WFOE) registered onshore is not possible in Mode 7. Secondly, the foreign venture capital fund in Mode 8 is under the wholly management of Chinese partner, while investment decisions can only be reached upon mutual agreement in Mode 7. Thirdly, Mode 7 requires both foreign venture capital (with US dollars) and its Chinese partner (with Chinese Yuan) inject capitals into ventures while the VSJVCF in Mode 8 can invest in either currency in its best interests.

Mode 9 – They are joint venture capital funds co-initiated by foreign governments and the Chinese government. These funds are all established

for diplomatic and economic corporation purposes and have no fixed term of duration or designed to be revolved on a predetermined length of time. Investment proceeds will be reinvested into the fund.

Mode 10 – “Tourist” Venture Capital Investment: Those foreign venture capital funds that do not have any China office and management team but simply count on frequent visits to China to conduct investments are often described as “tourist VC”. They establish and manage their exposure in China simply through their partners in China, including other foreign venture capital investors, legal councils and auditing houses.

By and large, three essentials/characteristics emerge that can distinguish amongst the above ten entry modes of foreign venture capital: (1) whether the foreign venture capital has a Chinese partner or not; (2) who is entrusted to manage the firm i.e. who determines the decision-making value and/or how they are decided? (3) whether the fund/firm is registered onshore, offshore or as a virtual entity.

5.1.2 Classification of Venture Capital Firms in China

In discriminating amongst the various entry modes, foreign venture capitals can be divided into two categories: FVCF and SJVCF. The virtual Sino-foreign joint venture capital firm (Mode 7 & 8) is grouped into SJVCF, because whether it is formally registered does not affect the decision-making value of venture capitalists as they remain “foreign”. Chinese venture capital firms are re-divided into GVCF and NGVCF based

on the degree of government influence over the fund/firm. The degree of government influence on the investment activities, especially deal origination and investment decision making, is measured by the ratio of government shareholding.

To avoid classification errors resulting from subjective classification, the initial classification were also presented to interviewees for further validation. Therefore venture capital firms investing in China can be objectively reclassified and defined as the following four categories:

1. *Foreign venture capital firm (FVCF)*: It is a wholly foreign-owned venture capital enterprise managed by foreign venture capitals. It can be registered onshore or offshore and established in any organisational structures, including limited partnership and limited company.
2. *Sino-foreign Joint Venture Capital Firm (SJVCF)*: It is a venture capital enterprise consisting of Chinese investors where the Chinese (central/local) government exerts direct or indirect influence over investment activities. Generally, the Chinese government has relatively larger shares of holding in the firm in a direct or indirect way.
3. *Chinese Government-controlled Venture Capital Firm (GVCF)*: It is a venture capital enterprise consisting of Chinese investors where the Chinese (central/local) government exerts direct or indirect influence over investment activities. Generally, the Chinese government has relatively larger shares of holding in the firm in a direct or indirect way.
4. *Non-Chinese Government-Controlled Venture Capital Firm (NGVCF)*: It is a

venture capital enterprise invested by Chinese investors, not limited to private or state investors. State interests in the firm are much smaller than the rest held by private Chinese investors. Government influence is therefore confined to the shares of holding (minority interests) or seat(s) in the board of directors.

5.1.3 Investment Criteria Used by VCs in China

Summary of Findings

“Government Influence” is the most important first-tier criterion for venture capitalists of FVCFs and rates as the runner-up, sixth and sixth place among first-tier investment criteria in NGVCFs, SJVCFs and GVCFs respectively. Breaking it down, “Free from Government Restrictions” is most critical to the accept/reject decision of FVCFs as foreign investments in China are all guided by the Catalogue for the Guidance of Foreign Investment Industries, amended in 2006, which classified Chinese industries against foreign investments into three categories: the “Encouraged”, “Restricted” and “Prohibited”. Many popular industries of venture capital investments in developed VC markets including Internet portal, media, retailing, telecommunications, etc. and those defined as “national industries”, are either restricted from or prohibited from receiving foreign investments. As investing in “Government Supported/Protected Industries” implies the latent benefits both the investor and investee will receive, it is the third important criteria for NGVCFs. Such regulatory force has

substantially influenced the investment direction of venture capitals.

A venture in an industry supported/protected by government policy can enjoy a beneficial tax rate for a certain period of time and be provided with preferential rents in land that facilities acquirement or even direct financial subsidy, while the investor will also enjoy tax deduction or refund up to 70% of total investments. As well, taxes paid at the firm level will not be double taxed at the individual level according to the newly issued "Regulations on Venture Capital Investments". Such a preferential policy is most straight forward from a financial management standpoint. In fact, investing in ventures of industries supported/protected by the government and keeping a distance from those prohibited is a central premise for all Chinese individuals or companies while it is a must-have lesson for FVCFs.

Furthermore, reflecting the ownership nature of GVCFs, venture capitalists in GVCFs are generally directed and guided to invest in ventures of national/local government-supported projects aiming at next generation technology or state-owned enterprises (SOEs) undertaken by related government organisations, universities or research affiliates with the purpose to promote social welfare or economic development. The common characteristics of these ventures are that they are generally developed in the seed or start-up stage, located in government-funded science parks and receive direct government subsidy or equity investments. With these preconditions and government influence, these ventures tend not to accept the term sheets offered by FVCFs and NGVCFs but will more readily accept those of GVCFs. If the venture conforms to the essential requirements of

SJVCFs established between the Chinese government and foreign governments, they may also be invested in by SJVCFs through the referral of related government organisation.

In comparison, the study concludes that the influence of regulatory force on VCs' investment criteria in China is enormous and that echoes to the arguments that the government views regulatory force an important tool for connecting scientific and technological capabilities and outputs on the one hand, with national and regional/provincial economic and social development on the other (White et al. 2000) although such regulatory institution remain weak in China (Guo 2008). In addition, the first-tier criterion "Government Influence" was also mentioned in the study on Poland conducted by Bliss (1999), with different connotations and similarities. Bliss argued that government's involvement in a deal as a "yellow flag" i.e. a signal that the quality of the deal is poor. Polish VCs are similar to their peers in GVCFs that they had to cultivate connections with related government officials in order to solicit new deals – generally state-owned enterprises (SOEs). However, "Government Influence" is not accented in VCs' investment criteria in Hungary (Karsai et al. 1997).

Overall, the importance of "Government Influence" is not stressed in any previous study on developed economies, as summarized in Table 2.2, where government generally plays a relatively smaller role in many economy aspects than the socialist or the less-developed economies, to the researcher's knowledge.

The presence of "Managerial Capabilities" to the accept/reject decision

of VCs has been frequently stressed in many past studies in various terms or phrases as summarized in Table 2.2. In this study, the importance of “Managerial Capabilities” is also validated in FVCFs (2nd), SJVCFs (1st) and NGVCFs (3rd) among the nine first-tier criteria. Particularly, the weight of “Administrative Skills of Team” ranked second among all second-tier investment criteria for both FVCFs and SJVCFs. In fact, a lot of interviewees of FVCFs were either directly trained in the US or educated to follow investment disciplines of US or other fund-originated countries. Therefore the results are consistent with the conclusions on Managerial Capabilities in past studies based on developed markets and a recent report suggesting that 80.94% of total foreign venture capital pool available for investment in mainland China is from the US (Zero2IPO Research Centre 2007). SJVCFs are mostly managed by foreign partners (Kang 2007) due to the lack of local investment talents and greater trust based on the longer track record of foreign partners. Overall the importance of “Managerial Capabilities” can also be validated in both FVCFs and SJVCFs whose investment value are originally from developed countries as evidenced in the literature.

GVCFs in China are mostly investment affiliates to local governments. Financial rewards and management team are usually not first considered by GVCFs when making investment decisions as the company incorporation constitution generally states that promoting the social welfare and economic development of the nation/province/municipal city are of the utmost importance (Zero2IPO Research Centre 2002). Senior management of SOEs are often appointed directly by the government, rather than professional

managers, while the quality of management is the main concern for GVCFs.

Findings show that “Market Prospect” ranked the 3rd, 4th, 6th and 7th of the nine generic criteria by FVCFs, SJVCFs, NGVCFs and GVCFs respectively. On the other hand, FVCFs are burdened with targets like financial rewards and NGVCFs (mostly funded by private enterprises and rich individuals) market share consolidation or advanced technology acquisition required by their fund investors. Therefore “Ease of Market Entry” and “Leadership in the Market” are more stressed by FVCFs (the 5th) and NGVCFs (the 7th) respectively among the 26 second-tier investment criteria.

Further, venture capitalists of GVCFs are usually guided to invest in government-supported projects, which are characterised by high-tech or next-generation concepts. This finding on GVCFs is the same as that conducted by MacMillian et al (1985). This phenomenon is also reflected in the findings on the selection value of GVCFs. “Product/Service Differentiation” ranked the 2nd place among the nine first-tier investment criteria of GVCFs, because government-initiated projects are the main investment candidates. Many of these projects are “Related to the Concept of High-tech” (ranked the 7th among the 26 second-tier investment criteria).

In comparison, findings show that both FVCFs and NGVCFs do not attach high importance to the criterion “Related to the Concept of High-tech”, which ranked the 14th and 17th among all second-tier investment criteria. Findings suggest that the main reason is the relatively low level of economic development with many investment opportunities hidden in

non-high-tech or traditional industries. The underdeveloped protection of property rights (Luo 1997) has a dominant impact on venture capital industry (White et al. 2002) and VCs' investment behaviour (Feng 2004). Moreover, the research findings appear significantly different from the results suggested by GVCFs and that of Guo (2008), in which ventures with high-tech concept are most favoured by venture capitalists. The results also echo to the findings of Knight (1994) that investment criteria used by VCs in Canada, Europe and the Asia-Pacific region are not as popular with VCs in the rest of the world as they are in the US as argued by MacMillan et al. (1985). However, whether the definition of "high tech" may be responsible for the difference of the two contractive results requires further research.

In addition, a combination of factors are also suggested for plagiarism in China, that include a prevailing lack of respect for intellectual property, a weak regulatory system against plagiarism and miniscule penalties and punishment for pirates and counterfeiters (White et al. 2002, Guo 2008). Therefore "Proprietary Product/Service" ranked fourth of all second-tier investment criteria by both FVCs and SJVCs.

The "Exit" category comprises two subordinate criteria – "Possibility to Exit during a Tolerable Period of Time" and "Exit Option Practicable in the Future". The reason is that venture capitalists of SJVCs are more strongly directed to liquidate all investments by the fund termination date for they are mostly project or budget-based in order to meet the fund schedule predetermined by two sides, except for the three SJVCs co-initiated by Chinese government and foreign governments with both diplomatic and

economic cooperation motives, than the other three types of venture capital firms. The Chinese bureaucratic system is also featured by such a strong reporting tradition (Zhuang 2003). Therefore SJVCFs place “Exit” and “Possibility to Exit During a Tolerable Period of Time” as the most important generic and second-tier investment criteria respectively. Further, there are three fundamental problems confronting all venture capital exits in China. These include regulatory constraints (Guo 2008) and the lack of an onshore over-the-counter market as well as the shortage of equity certificate options viable for venture capital investments (Zero2IPO Research Centre 2006, Kang 2007). Therefore FVCFs turn to seek for ventures that have established overseas shareholding vehicle providing the “Exit option practicable in the future” i.e. exiting through the “red chip” model (Kang 2007). In the next few years, foreign venture capitals will seek raise new rounds of funds denominated in Chinese Yuan and register onshore to adapt themselves to the disadvantageous environments.

The category of “Financial Considerations” consists of “Expected Investment Returns” and “Level of Venture Equity Valuation”. Findings show GVCFs ranked them the 4th and 3rd respectively and overall the 3rd. GVCFs have stressed so much the importance of these two criteria that seem to be in conflict with their investment decision making style - a top-down management system where venture capitalists generally follow government policy and internal referral system for deal origination and investment decision making. The explanation is that it is simply the consequence of how thoughts and behaviours of an individual in SOEs are affected by the

bureaucrat-oriented tradition under a socialist ruling system (Zer2IPO Research Centre 2005). Personal promotion in a communist system, including GVCFs, is usually based not only on personal accomplishment but also on “mian zi” incurred on the organization and the “boss”(Kang 2007). In comparison, findings identify “Level of Venture Equity Valuation” as the second most critical criterion for NGVCFs among the second-tier investment criteria to their accept/reject decision. The reason is that NGVCFs are generally funded by Chinese private enterprises and rich individuals who tend to haggle over every financial performance index of funded firms (Kang 2007).

Overall, findings show that “Shareholding Structure” is not highly rated by FVCFs and SJVCFs, yet it is the most important first-tier criteria for NGVCFs. The suggested cause is that many NGVCFs are given strategic assignments and the investment candidates may be involved with various kinds of business relationships/Guanxi or strength that fund investors would value and need. Especially, the criteria “Background of Venture Shareholders” is hence viewed as the most important criteria among all second-tier criteria by NGVCFs. This special attention to the background of venture shareholders has never been mentioned in past studies. From the perspectives of venture capitalists, guanxi, relationship or social ties are also presented in the Western context. VCs frequently seeking advice from other counterparts on a wide variety of issues is a common practice for VC professionals (Fried and Hisrich 1994). However, evidence has never been found in the evaluation of venture entrepreneurs.

Such a business relationship is also one of the basic concerns (6th) of GVCFs. In addition, findings also suggest that GVCFs generally do not want to conduct syndication investments with FVCs or NGVCs for the many differences in nature, such as investment values, fund origins, incorporation structure, etc.

The generic criterion "Guanxi" is broken down into "Referred by Relevant Government Official Other Than Fund Investor", "Referred by Fund Investor Other Than Government", "Referred by Other Connections Other Than Government and Fund Investor" and "Background of Entrepreneur". Findings show that GVCFs view "Guanxi" as the most important generic criterion among all first-tier criteria and the rankings of its subordinate criteria are also higher than those of other venture capital firms. Findings verify that cognitive institutions impact nearly all aspects of foreign venture capitalists' investing activities in China (Kang 2007, Guo 2008). This is the first time that "Guanxi" overall has been empirically recognised in the accept/reject decision of venture capitalists.

In comparison, the findings on the entry modes of foreign venture capitals, as summarised in Table 4.1, indicate that the decision values of FVCs inherently remain "foreign" and that of SJVCs is mixed. In addition, NGVCs are mainly funded by rich individuals and/or non-Chinese government-controlled organisations. Therefore the finding can be interpreted as the consequence of their initial funding motives: they invest in venture capital fund pursuing either financial rewards or strategic targets of organisations, while relying on "Guanxi" may not help satisfy such goals.

Particularly, “The Ventures Referred by Other Connections Other Than Government Officials or Fund Investors” is most valued by GVCFs. The reason is that these candidates are generally located in local science parks established by local governments/municipal cities. Venture capitalists of GVCFs have generally the access to the database of ventures located in the respective province/municipal city. Investing in these ventures is basically a “yes” investment decision for venture capitalists of GVCFs from the standpoints of fund investors (Venture Capital Development Report in China 2004). In comparison, findings show that the “Background of Entrepreneur” is also accented by GVCFs (5th), SJVCFs (6th) and NGVCFs (8th) amongst all second-tier criteria in order to gain advantages such as favourable policy benefits, orders from government-affiliates or even direct government subsidy, etc. Background of a person in China is often viewed a critical factor to the business success in China. Investing in an influential person is investing in their own benefits, such as the expansion of relationships with the Chinese authorities, to render their investee companies more substantial help (Kang 2007). The cognitive value “Guanxi” is very stressed in such a Confucian society (Guo 2008) that the recognition on Background/Guanxi of a person explains why many multinational companies in China invited well-known Chinese people with strong political connections as partners or consultants having no experience in the industries.

The criterion “A Proven Business Model in Developed Economies” tests whether VCs will invest in a business model in China (a transition economy)

that has been proved successful in other (developed) countries. This criterion has never been tested in past studies on VCs' investment criteria in both developed VC markets and transition economies. Findings suggest that such connection does not exist in China. The results show that investing in a venture that has been proved successful in a developed economy is least important to the accept/reject decision for all types of VCs in China due to the huge and cheap labour force in China and the threats of imitation. Therefore it can be inferred that the success of a business model developed in a developed economy may not be transferrable to an economy in transition due to the discrepancy in institutional environments. However, it cannot be presumed that a successful business model is not transferrable between developed VC markets, especially between the US and (Western) European countries, given the similarities in venture capital industry between the US and (Western) Europe (Sapienza et al. 1996).

Comparisons with Previous Research

Overall, this research has its features that should be compared to previous studies on both developed countries and transition economies. Firstly, the study has identified various entry strategies of foreign venture capitals regarding China - the worldwide largest developing and socialist country, with coding techniques. It is of prior importance before any research can conduct an in-depth study on a transition economy. Based on the results, the researcher can further classify foreign venture capitals operating in China into FVCF and SJVCF. The results on SJVCF appear a

different scenario of investment criteria and philosophy from that of FVCF as discussed above. Without such a classification of foreign venture capitals, the research concludes it results in an undefined broad way. Such detailed classification of venture capitals has never been found in any previous research on either developed countries or transition economies.

In addition, the investment criteria used by venture capitalists in China identified in this study appear distinctive features from those discovered in past studies based on both developed VC markets and transition economies, although some similarities are shared to various degree among venture capitalists of the four ownership categories, such as the stress on Managerial Capabilities, Product/Service Differentiation or Market Prospect as reviewed in the literature.

On the other hand, some unique Chinese factors that have not been mentioned in most past studies are proved to be significant to the accept/reject decision of venture capitalists. For example, findings suggest the first-tier investment criterion "Government Influence" is most important to the accept/reject decision of FVCFs operating in China, while "Managerial Capabilities" is still most critical to SJVCFs. The stress on government influence by FVCFs echoes to the conclusion of Guo (2008) that regulatory forces have significantly influenced the investment strategies of China venture capitalists. However, Guo (2008) only divided China venture capital firms into two categories: foreign venture capital firms and Chinese venture capital firms, while ignoring the diverse nature within each of the two categories and to what extent the regulatory force or government

influence will impact on VCs' investment criteria. This study solved this problem with the clear definitions on each category of China venture capital firms according to their diverse nature. Each category is also provided each category a measurable order for the impacts of government influence on investment criteria.

In addition, "Shareholding Structure" and "Guanxi" have never been stressed in previous studies while they are the most important criteria for NGVCFs and GVCFs respectively. The importance of "Guanxi" in VCs' investment activities has been acknowledged in some past studies on China venture capitals (Bruton and Ahlstrom 2003, Guo 2008). However, these researches did not explore the sub-essence of "Guanxi" nor distinguish VCs' ownership category and sequentially to what extent "Guanxi" will impact on their investment activities of each category. In contrast, this research has clearly divided "Guanxi" into four sub-categories or second-tier investment criteria into "Deals Referred by other connections other than government and fund investor", "Deals Referred by fund investor other than government", "Deals Referred by relevant government official other than fund investor" and "Background of entrepreneur", and distinguished the relative importance of the four criteria kept by each category of venture capitalists.

Overall, based on the analysis on the second-tier investment criteria, the most important criterion for GVCFs, NGVCFs, SJVCFs and FVCFs is "Referred by Other Connections Other Than Government and Fund Investors", "Background of Venture Shareholder", "Possibility to Exit

during a Tolerable Period of Time” and “Free from Government Restrictions”. These most valued criteria for each type of venture capitalists have not been distinguished in past studies either. Therefore this study verifies that investment criteria used by venture capitalists should vary from country to country due to the discrepancy in institutional environments between countries. Venture capitalists make necessary changes in evaluation criteria originally held in their home country to adapt to local environments.

In addition, the researcher initially proposed the criterion “A Proven Business Model in Developed Countries” to test whether venture capitalists will invest in a same business model in China (a transition economy) that has been proved successful in other (developed) countries. Findings also proved that venture capitalists will use different or local criteria to evaluate ventures of same business models given the difference of institutional environments. This conclusion has never been mentioned in any studies on transition economies.

It is also worth attention that “Geographical Location of Venture” as suggested by Guo (2008) was not presented in the final list of VCs’ investment criteria in China, although it was once mentioned in pilot study. This researcher suggests only GVCFs may consider this factor at the initial screening stage due to the fact that most GVCFs are funded by local governments and SOEs bearing the mission to support local industrial developments.

5.2 Research Limitations

The access to sufficient data and venture capitalists operating in China is the key to successfully complete the study. Although the researcher has possessed good Guanxi to access venture capitalists and the rich research resources of Zero2IPO Research Centre, some limitations were still encountered, divided into three dimensions. Firstly, in Chinese culture, “mian zi” of each one of same group will be hurt when discord or conflict takes place between comrades or colleagues (venture capitalists) in front of a stranger (the researcher) (Chen 2001). Therefore there may be disagreements between venture capitalists of the same venture capital firm regarding the same question during the interviews but it is hard for the researcher to detect whether such disagreements exist. In the Chinese context, a harmonious relationship should be subtly and carefully maintained in appearance. (Luo 1997) Therefore the researcher may miss some useful contradictory information when interviewing two venture capitalists and above at a time. Secondly, the researcher were not able to judge whether venture capitalists gave true answers on some sensitive questions, for example, involving inside the government policy, especially for those VCs in GVCFs and NGVCFs. Especially, some venture capitalists of GVCFs gave answers mixed of generalities or official jargons, which brought about the difficulty in data interpretation and analysis. At last, the importance of the criterion “Government Influence” to venture capitalists of GVCFs and NGVCFs may be underestimated as it is viewed as a taken-for-granted criterion and not to be mentioned.

5.3 Research Contributions

By and large, findings of this research have contributed to the body of knowledge on the decision science of venture capitalists in two aspects. Firstly, the study validates that country-specific factors significantly influence the accept/reject decision of venture capitalists. Although investment criteria are transferrable from one country to another with the globalisation of venture capitals, they have to be revised in order to adapt to local institutional environments. Therefore, venture capitalists of diverse nature (categories) investing in the same nation use distinctive investment criteria or the same investment criteria with different accents depending on the attribute of the venture capitalists i.e. what type of venture capitalists manage the funds. Hence it can be concluded that investment criteria of venture capitalists vary with the fund type in a nation and as a whole vary from country to country.

Based on empirical evidence, findings suggest "Government Influence" is one of the most important criteria for all type of venture capitalists investing in China. "Guanxi" is taken as the most valued criterion for GVCFs. This is the first time that the importance of "Guanxi" is recognised in the accept/reject decision of venture capitalists in China - a transition economy. In addition, the value of "Background of Venture Shareholders" for NGVCFs is also first verified in this study because Chinese investors of the private sector strive to create business networks all on their own.

The study also first proposed to test whether venture capitalists will invest in a business model in China (a transition economy) that has been

proved successful in developed countries. The results show that such “sheep flock” effect can not be applied to venture capitalists operating in China. This conclusion again verifies that venture capitalists do not apply the same investment values across borders. The success of a business model developed in a developed economy may not be transferrable to a transition economy due to the discrepancy in institutional environments.

Secondly, with the grounding results, the study generated ten entry strategies utilised by foreign venture capitals to conduct investments in China. This finding provides a primary and dependable classification of venture capital firms for future researches on China venture capitals. Without this classification, any finding on China venture capital industry can not be properly defined and interpreted. Such a way to classify venture capitals can also be applied to any venture capital research on transition economies. This classification can also offer an introductory guide to foreign venture capital practitioners who intend to tap China market and the basis to form their China entry and investment strategy.

5.4 Suggestions for Future Study

Transition economies, including China, have institutional environments very different from those in developed countries. Many past studies regarding decision sciences of venture capitalists simply apply findings to all while ignore the diverse nature between countries. For example, the being of SJVCFs is adopted by foreign venture capital investors as one of the investment strategies in China. With this transformation, findings suggest that the investment criteria stressed by SJVCFs are not the same as that of FVCFs. Therefore the researcher suggests that further researches focusing on venture capitals of transition economies should first attempt to classify venture capital firms operating in the target nation.

For those researches with China, as FVCFs in China have been rewarded better returns than those of GVCFs and NGVCFs with the measurement index IRR in the past decade (China Venture Capital Performance 1994-2005, 2006), hence the question is whether the divergence in investment criteria will affect the performance of venture capital firms in China.

At last, affected by the overall hostile regulatory environments in China, foreign venture capital exits through the so-called “red chip” model have shaded. The researcher hence suggests future researchers investigating the practical issue – what countermeasures that foreign venture capital firms have worked out to solve the problem, how they are manipulated, etc.

Appendices

Appendix I Investment Criteria and Measurement Scale

Investment Decision	First-tier (Generic) Criteria	Second-tier (Subordinate) Criteria	Measurement Scale			
			High	Moderate	Low	
Managerial Capabilities	Team sense of business environmental risks	Outside appraisal of entrepreneur	High	Moderate	Low	
			Good	Fair	Poor	
			Strong	Medium	Weak	
	Administrative skills of team	Relevant experience and recognised expertise of team	Leadership potential of entrepreneur	Good	Fair	Poor
				Strong	Medium	Weak
				Easy	Moderate	Difficult
				High	Medium	Low
Market Prospect	Ease of market entry	A fast-growing market in several years	Strong	Medium	Weak	
			High	Fair	Low	
			High	Medium	Low	
Product/service Differentiation	Leadership in the market	Product/service distinction	High	Medium	Low	
			High	Medium	Low	
			High	Medium	Low	
			High	Medium	Low	
		Proprietary product/service	High	Medium	Low	
		Related to the concept of "high tech"	Yes	-	No	

Exit Potential	Possibility to exit during a tolerable period of time	High	Medium	Low
	Exit option practicable in the future	Flexible	-	Limited
Government Influence	Government supported/protected industries	Yes	-	No
	Free from government restrictions	Yes	-	No
Financial Considerations	Expected investment returns	High	Medium	Low
	Level of venture equity valuation	High	Medium	Low
Shareholding structure	Background of venture shareholders	Desirable	Indifferent	Undesirable
	Degree of involvement in venture	High	Moderate	Low
	Ration of venture stake	Satisfactory	-	Unsatisfactory
	Referred by other connections other than government and fund investor	Yes	-	No
Guanxi	Referred by fund investor other than government	Yes	-	No
	Referred by relevant government official other than fund investor	Yes	-	No
	Background of entrepreneur	Strong	Medium	Weak
Others	A Proven business model in developed countries	Yes	-	No

Appendix II Interview Guidelines

Part 1 About the venture capital firm		Date:	
Firm/Fund name _____			
Name of Interviewee:			
Title/Position:			
Sex (Female, Male):			
Tel:		Fax:	
E-mail:			
Address:			
No	Question	Answer	Notes
	How old are you?		
	How many years in VC industry?		
	How many years in the company/fund?		
	Where is the fund originated?		
	Where is the fund registered (offshore)?		
	Where is the fund registered (onshore)?		
	Who are their fund investors?		
	What is the size globally?		
	What is the size available for China?		
	What is the incorporation form?		
Part II. How do they invest in China?			
	Do you have an offshore vehicle? If Yes, where is the offshore vehicle?		
	Do you manage the fund yourself? If no, who manage it for you? Please describe in details how they manage it		

	for you.		
	Do you manage the fund for other venture capitals? If yes, who do you manage it for? Please describe in details how you manage it for them.		
	Please describe in details how you invest in China from deal origination to closing.		
	How is the decision-making committee structured? Or what is the decision-making mechanism?		
	How do you manage the portfolio? What value-added activities do you provide to portfolio companies?		
	How do you exit?		

Appendix III Weights/Ranking of Investment Criteria of FVCFs

Accept/ Reject Decision	First-tier Criteria	Second-tier Criteria	Weights of First-tier Criteria on Overall Accept/Reject Decision	Weights of Second-tier Criteria on Respective First-tier Criterion	Weights of Second-tier Criteria on Overall Accept/Reject Decision	Ranking of Second-tier Criteria Relative to Overall Accept/Reject Decision
		Team sense of business environmental risks	26.26%	6.90%	1.81%	18
		Outside appraisal of entrepreneur		19.59%	5.14%	8
		Relevant experience and recognised expertise of team		24.42%	6.41%	3
	Managerial Capabilities	Administrative skills of team		30.48%	8.00%	2
		Leadership potential of entrepreneur		18.61%	4.89%	9
		Ease of market entry		47.27%	5.96%	5
		A fast-growing market in several years		33.46%	4.22%	11
	Market Prospect	Leadership in the market		19.27%	2.43%	16
		Product/service distinction		10.06%	0.33%	24

Differentiation	Product/service margin		8.25%	0.83%	20
	Proprietary product/service		60.13%	6.05%	4
	Related to the concept of "high tech"		28.36%	2.85%	14
Exit	Possibility to exit during a tolerable period of time	10.47%	43.87%	4.59%	10
	Exit option practicable in the future		56.13%	5.88%	6
Government Influence	Government supported/protected industries	26.74%	21.27%	5.69%	7
	Free from government restrictions		78.73%	21.05%	1
Financial Considerations	Expected investment returns	5.05%	53.33%	2.69%	15
	Level of venture equity valuation		46.67%	2.36%	17
Shareholding Structure	Background of venture shareholders		17.16%	0.71%	21
	Degree of involvement in venture	4.14%	71.87%	2.97%	12
	Ration of venture stake		10.97%	0.45%	23
Guanxi	Referred by other connections other than government and fund investor	3.61%	15.38%	0.56%	22
	Referred by fund investor other than government		1.62%	0.06%	25
	Referred by relevant government		1.08%	0.04%	26

		official other than fund investor						
		Background of entrepreneur			81.92%		2.96%	13
Others		A proven business model in developed Economies	1.06%		100.00%		1.06%	19

Appendix IV Weights/Ranking of Investment Criteria of SJVCFs

Accept/ Reject Decision	First-tier Criteria	Second-tier Criteria	Weights of First-tier Criteria on Overall Accept/Reject Decision	Weights of Second-tier Criteria on Respective First-tier Criterion	Weights of Second-tier Criteria on Overall Accept/Reject Decision	Ranking of Second-tier Criteria Relative to Overall Accept/Reject Decision
		Team sense of business environmental risks	24.85%	6.90%	1.71%	19
		Outside appraisal of entrepreneur		7.59%	1.89%	18
		Relevant experience and recognised expertise of team		21.42%	5.32%	5
	Managerial Capabilities	Administrative skills of team	24.85%	32.48%	8.07%	2
		Leadership potential of entrepreneur		31.61%	7.85%	3
		Ease of market entry		39.27%	4.46%	9
	Market Prospect	A fast-growing market in several years	11.35%	42.46%	4.82%	8
		Leadership in the market		18.27%	2.07%	17
	Product/service	Product/service distinction	15.52%	21.26%	3.30%	13

Differentiation	Product/service margin		8.25%	1.28%	22
	Proprietary product/service		48.13%	7.47%	4
	Related to the concept of "high tech"		22.36%	3.47%	12
Exit	Possibility to exit during a tolerable period of time	19.10%	76.87%	14.68%	1
	Exit option practicable in the future		23.13%	4.42%	11
Government Influence	Government supported/protected industries	9.43%	47.27%	4.46%	10
	Free from government restrictions		52.73%	4.97%	7
Financial Considerations	Expected investment returns	4.84%	43.33%	2.10%	16
	Level of venture equity valuation		56.67%	2.74%	15
Shareholding Structure	Background of venture shareholders		32.87%	1.32%	21
	Degree of involvement in venture	4.02%	31.16%	1.25%	23
	Ration of venture stake		35.97%	1.44%	20
Guanxi	Referred by other connections other than government and fund investor	9.73%	29.38%	2.86%	14
	Referred by fund investor other than government		10.62%	1.03%	25
	Referred by relevant government		8.08%	0.79%	26

		official other than fund investor						
		Background of entrepreneur				51.92%		5.05%
Others		A proven business model in developed Economies		1.17%		100.00%		1.17%
								6
								24

Appendix V Weights/Ranking of Investment Criteria of NGVCFs

Accept/ Reject Decision	First-tier Criteria	Second-tier Criteria	Weights of First-tier Criteria on Overall Accept/Reject Decision	Weights of Second-tier Criteria on Respective First-tier Criterion	Weights of Second-tier Criteria on Overall Accept/Reject Decision	Ranking of Second-tier Criteria Relative to Overall Accept/Reject Decision	
		Team sense of business environmental risks	14.88%	17.37%	2.59%	13	
		Outside appraisal of entrepreneur		2.04%	0.30%	24	
	Managerial Capabilities	Relevant experience and recognised expertise of team		30.85%	4.59%	5	
		Administrative skills of team		19.39%	2.89%	10	
		Leadership potential of entrepreneur		30.35%	4.52%	6	
	Market Prospect	Ease of market entry		28.04%	2.51%	14	
		A fast-growing market in several years		33.43%	3.00%	9	
		Leadership in the market		38.53%	3.45%	7	
	Product/service	Product/service distinction		7.34%	32.52%	2.39%	15

Differentiation	Product/service margin		22.70%	1.67%	20
	Proprietary product/service		21.43%	1.57%	21
	Related to the concept of "high tech"		23.35%	1.71%	17
Exit	Possibility to exit during a tolerable period of time	4.57%	36.84%	1.68%	18
	Exit option practicable in the future		63.16%	2.88%	11
Government Influence	Government supported/protected industries	20.52%	51.45%	10.56%	3
	Free from government restrictions		48.55%	9.96%	4
Financial Considerations	Expected investment returns	12.59%	14.27%	1.80%	16
	Level of venture equity valuation		85.73%	10.80%	2
Shareholding Structure	Background of venture shareholders		82.00%	20.53%	1
	Degree of involvement in venture	25.04%	6.68%	1.67%	19
	Ration of venture stake		11.32%	2.83%	12
Guanxi	Referred by other connections other than government and fund investor	4.93%	25.56%	1.26%	22
	Referred by fund investor other than government		2.47%	0.12%	25
	Referred by relevant government		2.24%	0.11%	26

	official other than fund investor						
	Background of entrepreneur		69.73%		3.44%		8
Others	A proven business model in developed Economies	1.16%	100.00%		1.16%		23

Appendix VI Weights/Ranking of Investment Criteria of GVCFs

Accept/ Reject Decision	First-tier Criteria	Second-tier Criteria	Weights of First-tier Criteria on Overall Accept/Reject Decision	Weights of Second-tier Criteria on Respective First-tier Criterion	Weights of Second-tier Criteria on Overall Accept/Reject Decision	Ranking of Second-tier Criteria Relative to Overall Accept/Reject Decision
		Team sense of business environmental risks	9.00%	25.37%	2.28%	18
		Outside appraisal of entrepreneur		28.04%	2.52%	16
		Relevant experience and recognised expertise of team		9.85%	0.89%	25
	Managerial Capabilities	Administrative skills of team	9.00%	6.39%	0.57%	26
		Leadership potential of entrepreneur		30.35%	2.73%	14
		Ease of market entry		28.04%	1.33%	22
	Market Prospect	A fast-growing market in several years	4.73%	38.43%	1.82%	20
		Leadership in the market		33.53%	1.59%	21
	Product/service	Product/service distinction	20.19%	39.52%	7.98%	2

Differentiation	Product/service margin		14.70%	2.97%	13
	Proprietary product/service		22.43%	4.53%	8
	Related to the concept of "high tech"		23.35%	4.71%	7
Exit	Possibility to exit during a tolerable period of time	3.62%	66.27%	2.40%	17
	Exit option practicable in the future		33.73%	1.22%	23
Government Influence	Government supported/protected industries	7.09%	45.45%	3.22%	11
	Free from government restrictions		54.55%	3.87%	10
Financial Considerations	Expected investment returns	15.14%	48.57%	7.35%	4
	Level of venture equity valuation		51.43%	7.79%	3
Shareholding Structure	Background of venture shareholders		44.48%	5.85%	6
	Degree of involvement in venture	13.15%	24.00%	3.16%	12
	Ration of venture stake		31.52%	4.14%	9
Guanxi	Referred by other connections other than government and fund investor	25.95%	56.40%	14.64%	1
	Referred by fund investor other than government		10.47%	2.72%	15
	Referred by relevant government		7.24%	1.88%	19

		official other than fund investor						
		Background of entrepreneur						5
Others		A proven business model in developed Economies	1.13%	100.00%	1.13%			24

Appendix VII Questionnaires (Partial, Cover Page Omitted)

Part I. Generic Investment Criteria Evaluation

Please give scores from 1 to 9 or 1(1/1) to 1/9 to each of the blank based on your preferences based on the scale table as shown below.

Scaling	Definition	Explanations
1	Equal Importance	Two options have same contributions.
3	Weak Importance	One of the two options is moderately favoured over the other.
5	Essential Importance	One of the two options is strongly favoured over the other.
7	Demonstrated Importance	One of the two options is very strongly favoured over the other.
9	Absolute Importance	One of the two options is extremely favoured over the other.
2, 4, 6, 8	Intermediate Value	When compromise is needed.

For example, if you consider “Market Prospect” is moderately favoured than “Managerial Capabilities”, you fill “3” in the blank C3 and “1/3” if vice versa. If you consider “Market Prospect” is very strongly favoured than “Managerial Capabilities”, you fill “7” in the blank C3 and “1/7” if vice versa. Those shadowed spaces are automatically calculated, so you do not need to worry about it. If you consider the degree of preference is located between 1, 3 (1/3), 5 (1/5), 7 (1/7) and 9 (1/9), use 2 (1/2), 4 (1/4), 6 (1/6) and 8 (1/8).

Generic Investment Criteria Evaluation

	Managerial Capabilities	Market Prospect	Product/service Differentiation	Exit	Government Influence	Financial Considerations	Shareholding structure	Guanxi	Others
Managerial Capabilities									
Market Prospect									
Product/service Differentiation									
Exit									
Government Influence									
Financial Considerations									
Shareholding structure									
Guanxi									
Others									

Part II. Second-tier Investment Criteria Evaluation

Please give scores from 1 to 9 to each of the cards, with 9 represents the most preferred and 1 the least. You can give equal score to different cards.

Managerial Capabilities	Score
Card 1 Team sense of business environmental risks Moderate Outside appraisal of entrepreneur Fair Relevant experience and recognised expertise of team Medium Administrative skills of team Fair Leadership potential of entrepreneur Strong	
Card 2 Team sense of business environmental risks Moderate Outside appraisal of entrepreneur Good Relevant experience and recognised expertise of team Weak Administrative skills of team Good Leadership potential of entrepreneur Weak	
Card 3 Team sense of business environmental risks High Outside appraisal of entrepreneur Fair Relevant experience and recognised expertise of team Weak Administrative skills of team Good Leadership potential of entrepreneur Medium	
Card 4 Team sense of business environmental risks Low Outside appraisal of entrepreneur Poor Relevant experience and recognised expertise of team Weak Administrative skills of team Poor Leadership potential of entrepreneur Strong	
Card 5 Team sense of business environmental risks High Outside appraisal of entrepreneur Good Relevant experience and recognised expertise of team Strong	

<p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Strong</p>	
<p>Card 6</p> <p>Team sense of business environmental risks High</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Medium</p> <p>Administrative skills of team Poor</p> <p>Leadership potential of entrepreneur Strong</p>	
<p>Card 7</p> <p>Team sense of business environmental risks Low</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Medium</p> <p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Weak</p>	
<p>Card 8</p> <p>Team sense of business environmental risks High</p> <p>Outside appraisal of entrepreneur Poor</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Fair</p> <p>Leadership potential of entrepreneur Weak</p>	
<p>Card 9</p> <p>Team sense of business environmental risks High</p> <p>Outside appraisal of entrepreneur Poor</p> <p>Relevant experience and recognised expertise of team Medium</p> <p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Medium</p>	
<p>Card 10</p> <p>Team sense of business environmental risks Moderate</p> <p>Outside appraisal of entrepreneur Poor</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Strong</p>	

<p>Card 11</p> <p>Team sense of business environmental risks Low</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Fair</p> <p>Leadership potential of entrepreneur Medium</p>	
<p>Card 12</p> <p>Team sense of business environmental risks Moderate</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Poor</p> <p>Leadership potential of entrepreneur Medium</p>	
<p>Card 13</p> <p>Team sense of business environmental risks High</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Weak</p> <p>Administrative skills of team Fair</p> <p>Leadership potential of entrepreneur Strong</p>	
<p>Card 14</p> <p>Team sense of business environmental risks Low</p> <p>Outside appraisal of entrepreneur Fair</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Strong</p>	
<p>Card 15</p> <p>Team sense of business environmental risks High</p> <p>Outside appraisal of entrepreneur Good</p> <p>Relevant experience and recognised expertise of team Strong</p> <p>Administrative skills of team Good</p> <p>Leadership potential of entrepreneur Strong</p>	
<p>Card 16</p> <p>Team sense of business environmental risks High</p>	

Outside appraisal of entrepreneur Fair	
Relevant experience and recognised expertise of team Strong	
Administrative skills of team Poor	
Leadership potential of entrepreneur Weak	
Market Prospect	Score
Card 1	
Ease of market entry Moderate	
A fast-growing market in several years Medium	
Leadership in the market Strong	
Card 2	
Ease of market entry Difficult	
A fast-growing market in several years Medium	
Leadership in the market Weak	
Card 3	
Ease of market entry Easy	
A fast-growing market in several years Low	
Leadership in the market Weak	
Card 4	
Ease of market entry Difficult	
A fast-growing market in several years High	
Leadership in the market Medium	
Card 5	
Ease of market entry Easy	
A fast-growing market in several years Medium	
Leadership in the market Medium	
Card 6	
Ease of market entry Easy	
A fast-growing market in several years High	
Leadership in the market Strong	
Card 7	
Ease of market entry Moderate	
A fast-growing market in several years Low	

Leadership in the market Medium	
Card 8	
Ease of market entry Moderate	
A fast-growing market in several years High	
Leadership in the market Weak	
Card 9	
Ease of market entry Difficult	
A fast-growing market in several years Low	
Leadership in the market Strong	
Product/Service Differentiation	Score
Card 1	
Product/service of distinction High	
Product/service margin High	
Proprietary product/service High	
Related to the concept of high tech Yes	
Card 2	
Product/service of distinction Fair	
Product/service margin Low	
Proprietary product/service High	
Related to the concept of high tech Yes	
Card 3	
Product/service of distinction Low	
Product/service margin Medium	
Proprietary product/service High	
Related to the concept of high tech No	
Card 4	
Product/service of distinction Low	
Product/service margin High	
Proprietary product/service Medium	
Related to the concept of high tech Yes	
Card 5	
Product/service of distinction High	

Product/service margin Medium	
Proprietary product/service Low	
Related to the concept of high tech Yes	
Card 6	
Product/service of distinction Fair	
Product/service margin High	
Proprietary product/service Low	
Related to the concept of high tech No	
Card 7	
Product/service of distinction Fair	
Product/service margin Medium	
Proprietary product/service Medium	
Related to the concept of high tech Yes	
Card 8	
Product/service of distinction High	
Product/service margin Low	
Proprietary product/service Medium	
Related to the concept of high tech No	
Card 9	
Product/service of distinction Low	
Product/service margin Low	
Proprietary product/service Low	
Related to the concept of high tech Yes	
Exit	Score
Card 1	
Possibility to exit during a tolerable period of time High	
Exit option practicable in the future Flexible	
Card 2	
Possibility to exit during a tolerable period of time Medium	
Exit option practicable in the future Limited	
Card 3	
Possibility to exit during a tolerable period of time Low	

Exit option practicable in the future Flexible	
Card 4	
Possibility to exit during a tolerable period of time Low	
Exit option practicable in the future Limited	
Card 5	
Possibility to exit during a tolerable period of time Medium	
Exit option practicable in the future Flexible	
Card 6	
Possibility to exit during a tolerable period of time High	
Exit option practicable in the future Limited	
Government Influence	Score
Card 1	
Government supported/protected industries No	
Free from government restrictions Yes	
Card 2	
Government supported/protected industries Yes	
Free from government restrictions Yes	
Card 3	
Government supported/protected industries No	
Free from government restrictions No	
Card 4	
Government supported/protected industries Yes	
Free from government restrictions No	
Financial Considerations	Score
Card 1	
Expected investment returns High	
Level of venture equity valuation Medium	
Card 2	
Expected investment returns Low	
Level of venture equity valuation High	
Card 3	
Expected investment returns Medium	

Level of venture equity valuation Medium	
Card 4	
Expected investment returns Medium	
Level of venture equity valuation Low	
Card 5	
Expected investment returns High	
Level of venture equity valuation Low	
Card 6	
Expected investment returns Medium	
Level of venture equity valuation High	
Card 7	
Expected investment returns Low	
Level of venture equity valuation Medium	
Card 8	
Expected investment returns Low	
Level of venture equity valuation Low	
Shareholding Structure	Score
Card 1	
Background of venture shareholders Indifferent	
Degree of control over venture High	
Ration of venture stake UnSatisfactory	
Card 2	
Background of venture shareholders Indifferent	
Degree of involved in venture Moderate	
Ration of venture stake Satisfactory	
Card 3	
Background of venture shareholders Desirable	
Degree of involved in venture Moderate	
Ration of venture stake Satisfactory	
Card 4	
Background of venture shareholders Indifferent	
Degree of involvement in venture Low	

Ration of venture stake	Satisfactory	
Card 5		
Background of venture shareholders	Undesirable	
Degree of involvement in venture	Low	
Ration of venture stake	Satisfactory	
Card 6		
Background of venture shareholders	Undesirable	
Degree of involvement in venture	High	
Ration of venture stake	Satisfactory	
Card 7		
Background of venture shareholders	Undesirable	
Degree of involvement in venture	Moderate	
Ration of venture stake	UnSatisfactory	
Card 8		
Background of venture shareholders	Desirable	
Degree of involvement in venture	High	
Ration of venture stake	Satisfactory	
Card 9		
Background of venture shareholders	Desirable	
Degree of involvement in venture	Low	
Ration of venture stake	UnSatisfactory	
Guanxi		Score
Card 1		
Referred by other connections other than government and fund investor	No	
Referred by fund investor other than government	Yes	
Referred by relevant government official other than fund investor	Yes	
Background of entrepreneur	Medium	
Card 2		
Referred by other connections other than government and fund investor	Yes	
Referred by fund investor other than government	No	
Referred by relevant government official other than fund investor	No	
Background of entrepreneur	Medium	

Card 3	
Referred by other connections other than government and fund investor	No
Referred by fund investor other than government	Yes
Referred by relevant government official other than fund investor	No
Background of entrepreneur	Strong
Card 4	
Referred by other connections other than government and fund investor	Yes
Referred by fund investor other than government	Yes
Referred by relevant government official other than fund investor	No
Background of entrepreneur	Medium
Card 5	
Referred by other connections other than government and fund investor	No
Referred by fund investor other than government	No
Referred by relevant government official other than fund investor	No
Background of entrepreneur	Strong
Card 6	
Referred by other connections other than government and fund investor	Yes
Referred by fund investor other than government	No
Referred by relevant government official other than fund investor	Yes
Background of entrepreneur	Strong
Card 7	
Referred by other connections other than government and fund investor	No
Referred by fund investor other than government	No
Referred by relevant government official other than fund investor	Yes
Background of entrepreneur	Medium
Card 8	
Referred by other connections other than government and fund investor	Yes
Referred by fund investor other than government	Yes
Referred by relevant government official other than fund investor	Yes
Background of entrepreneur	Strong

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