CHAPTER 6

ANALYSIS AND DISCUSSION

In this chapter an analysis of will be performed when comparing the investment strategies of all venture capitalists included in this thesis. Evidently, the analysis is conformed based on the outcomes of the empirical study presented in the preceding chapter, when three corporate venture capital firms, a life insurance bank and an industrial bank were investigated.

6.1 Sources of Capital

Between all firms included in this paper, it's evident that there are two groups with somewhat similar characteristics between them; the corporate venture capital firms, that in general act as venture capital fund managers, and the institutional investors.

- The corporate venture capital firms collect capital from several types of economic agents to "give life" to their operations as venture capital funds managers. These firms must perform an active collection of funds, mainly a responsibility of the top management.

- The institutional investors are not required to do that active search of "investors", as their capital available for venture capital investments comes from the traditional fund flow of the entity's business.

For some of the corporate venture capitalists, such as VC Firms A and B, the source of funds seems to have a direct impact on their investment strategies, situation admitted by interviewees from those two entities. VC Firm C has more years of experience and a larger, more specialized infrastructure (to be discussed later) than VC Firm A and B; VC Firm C was quoted as an industry leader in Taiwan. The interviewed CFO defended that their investment strategy was "subject to our expertise and experience". Its assumed that the limited partners for VC Firm C seem to have less impact on the firm's investment strategy.

The industrial bank is said to possess an extensive experience in this type of investments and a seemingly larger influence in the venture capital industry compared to the corporate venture capital firms evaluated in this paper. This situation has helped the bank achieve a reliable and valuable know-how. However, since the company currently belongs to a financial holding company and therefore, its shareholders' nature was changed, the bank might have tighter controls for its venture capital investments and probably less flexibility compared to the time when it was a government-owned financial institution. This assumption may be related to the bank's purposes to establish its own subsidiary, in a way to also handle venture capital but with a lower risk-aversion attitude and restrictions than itself. According to several experts in this field, when restrictions are tight in venture capital investments, the essence of the business changes, and venture capitalists may not be able to utilize part of their skills and abilities to do a competent job.

The life insurance company's venture capital investments are funded from capital that belongs to insurance policies that it may have to pay back in the future. It's perceptible that the company can not take relative big risks with those resources and thus, highly overweight the outsourcing of venture capital investments to other players that have a more complex infrastructure to perform them.

6.2 Asset Allocation

6.2.1 By Investment Stage

It's interesting to note that among all five companies investigated, only two (VC Firm A and the industrial bank) are allocating capital into seed stage of financing. Currently VC Firm C doesn't hold investments in this stage, though it held in the past. VC Firm A is an appealing case in this sense by having the "courage" to pour a proportion of its funds into seed capital, where others don't. It's important to remember that that VC Firm A mentioned how it is investing in some technologies that "few people have heard about". There might be a possibility that portion of those seed investments might be inflated by

the investment in some of those new technologies. However, VC Firm C, which is the most mature (years of experience) corporate VC firm in this paper acknowledged that some years ago they actually invested in seed stage, but a significant part of these investments ended up in failure. VC Firm B doesn't have investments in this stage as seed capital can't have a two-year record of profits. The life insurer also restrains itself from pouring capital into seed investments. According to data from the Taiwan Venture Capital Association, displayed in Chapter 4, the overall industry invests almost 4.5% of all funds into this seed stage. Only VC Firm A is close enough to that indicator, followed by the industrial bank.

For start-up stage investments, the industrial bank is the one that allocates more of its funds, in line with the nature of its business and its background, since until a few years ago, it was a government-owned industrial bank which aim was to "assist enterprises to develop their technologies and skills" [1] . VC Firm C falls second with almost a quarter of its funding allocated into start-up stage. This is the earliest "entrepreneurial" stage the company invests, since it doesn't provide seed capital. VC Firm A is third with a 21% designated into start-up stage. Once again, VC Firm B and the life insurance company do not invest in this stage.

In terms of expansion stage, it's an appealing situation that VC firm C holds the biggest percentage (47%). The industrial bank it's second with a 36%. Closest to the industrial bank is VC Firm A with a 31%. The life insurance company finally enters the game, with an 11% invested in companies at this stage, but let's remember that it also out sources around 95% of all available funds for venture capital investments. VC Firm B might also be investing in some companies in this stage too, but only if they have been profitable for at least two years.

(1) note translated from the bank's annual report.

In regards to the mezzanine stage, the insurance company beats the other venture capitalist by investing an 89%, definitely the preferred stage for its investments. The second one is VC Firm A with a 43% in companies hopefully next to go public in a couple of years. A striking coincidence comes up as VC Firm C and the industrial bank hold the relative same proportion of its investments in mezzanine-stage enterprises, confirming the statements of interviewees when mentioned that their company invests in start-ups where other top-tier venture capitalists also invest. VC Firm B surely invests most of its capital in start-ups in this stage, although a percentage is not available.

Only the industrial bank invests in turnaround cases; although the percentage is relatively high compared to the close-to-zero average of the overall industry (0.07%) but probably, once again in line with its past operations as a government-owned bank that must support all industries.

6.2.2 By Industry

Only the industrial bank and VC Firm C provided more plentiful information regarding this form of asset allocation. However, it's hard to compare this part as the bank has more than 30% ("Others" category) of the capital invested into several sub-sectors highly correlated to the main industries (semiconductors, Optoelectronics, etc.). Nevertheless, by looking at the numbers and the comments made by each interviewee, it's quite noticeable that all these venture capitalists overweight technologies from telecommunications, semiconductors, optoelectronics and underweight others such as software, internet and biotechnology. As TVCA's data show (in Chapter 4), these industries are also commonly overweighed by the overall venture capital industry in the island.

6.2.3 By Geographic Location

Taiwan is the predominant location for investments. Two of the researched firms invest up to 100% of the capital in firms located in Taiwan (Insurance company and VC Firm B). The industrial bank invests 91% in Taiwan, but didn't disclose details. VC Firm A did not provide a percentage but confirmed that most of its investments are in Taiwan too. VC Firm A also confirmed that it invests in both the United States and indirectly into Mainland China and emphasized the fact that after some bad experiences, it would only invest in US-based firms if the founder is either a Taiwanese immigrant or with a Chinese background. The one distancing from the group is VC Firm C which invests only 59% in Taiwan VC Firm C by the way indirectly invests a significant part of capital into enterprises located in Mainland China and the rest goes mainly to the Silicon Valley, California, USA; however, it's interesting to note that VC Firm C also under weights US investments in comparison to China, which also reflects a preference to participate with Asian entrepreneurs.

6.2.4 Outsourcing to Other Venture Capital Fund Managers

Out of the five explored financial institutions, only two (VC Firm B and VC Firm C) do not outsource part of their funds into other venture capital fund managers. VC Firm C's point of view, is that their experience and resources are considered enough to avoid this practice. VC Firm B's strict investment criteria evidently restrict the company from outsourcing. The industrial bank and the insurance company outsource to other venture capitalists and the reason given for this action was said to be to "diversify the risk". VC Firm A outsources but only to US venture capital companies located near the Bay Area, Silicon Valley, California; reason given was to "both diversify the risk and learn from them".

6.3 Sources of Deal Flow

In this section differences are minimal. All five venture capitalists encounter opportunities, most of them relying on a network of other institutions and professionals. Active search is done by all of them too, except for the life insurer. The life insurer actually belongs to that network that the other ones claim to have, as it confirmed that it usually supplies investment ideas to its related venture capitalists.

6.4 General Investment Criteria

The five general investment criteria are quite similar, especially since all venture capitalists are willing to invest in a renowned and capable management team that can prove it can achieve what the business plan explains. However, it's important to note that the interviewees mention some different qualities about that management team. Some pay more importance to entrepreneurs with communication skills can that convince both investors and employees on his plans. The industrial bank believes the company's management team should already have a good balance between technical and business background, something especially hard to find in an start-up company, according to several researchers. It also pays special attention of the R&D capabilities of the firm.

VC Firm A believes a company with a good business model is more important than one with just a new product. But VC Firm C believes a company establishing new markets for existing products can have quite more potential, as it seems to be venture capitalist with a more international-oriented approach. Conservative players such as VC Firm B and the life insurance company, although weight importance on factors such as product or market potential believe primarily in real, black numbers.

6.5 Pre-investment Activities

Most of these venture capitalists follow a similar structure of activities, mostly focused on evaluating the company. All but the insurance company surveys through customers,

suppliers, etc., although it collects similar information from other venture capital firms already investing in the start-up company. It's not necessary to mention that Financial analysis is done by all of them. Others go deeper, such as VC Firm C which takes a more specialized approach, by executing sensitivity analyses. VC Firm also seems to do more extensive employee surveys as it interviews them directly to find their real personal perception of their own employer, definitely a plus for the company, if done properly. The industrial bank interestingly tries to do something similar but from a shareholder point of view.

The only venture capitalist, although just occasionally, is willing to do deal structuring is the industrial bank.

6.6 Post-Investment Activities

The main structure of post-investment activities is carried out similarly by most of surveyed venture capitalists. Quarterly financial status assessment is done by all of them with no exceptions. VC Firm A, B and C keep a close attention at the flow of key human resource and dig on the reasons and consequences in case one of those heavy-weights leaves, a very negative sign for them. The insurance company and the industrial bank did not mention about performing this practice, truly a flaw in their system. However, due to the fact that these two “institutional” venture capitalists tend to invest in a same start-up firm as other prominent venture capitalists do, it’s assumed that they all keep a constant information flow and probably both the insurance company and the bank keep informed about relevant events regarding that issue. Periodic surveys from customers, suppliers and business partners are done by almost all of the studied firms, except for the life insurer. VC Firm C always controls one seat in the board of directors, which helps the company monitor and control potential risks in each case, definitely a plus in their investment procedures. The other ones have the same opportunity but not in all investments. But sometimes they can get the right to have a supervisor to the board, which enables them to do a better monitoring job. VC Firms C claims to do a more frequent on-site analysis (monthly) and assessment on the start-ups than its peers.

6.7 Added-Value Services Offered to the Start-Up Firms

With the exception of the life insurer, all venture capitalists offer start-ups with strategic, tactical and operational business consulting services. Some through the board of directors when is possible. Areas of assistance include financial management, accounting and marketing. But it seems that only VC Firm C is willing or has enough resources to go one step beyond, by also helping in the technical field. VC Firm C along with VC Firm A and B and the industrial bank have let a few members of their staff to personally help manage part of the start-ups business on a temporary basis. These four players also assist in the human resource recruiting process (for key personnel).

The life insurer does not help that much but it had issued recommendations to the board of directors on a variety of aspects of the business. All five companies claim to help the entrepreneurs by providing access to a wide network of financial institutions, other venture capitalists, business consultants, potential customers, suppliers, etc. Only VC Firm C mentioned access to a more international network, since it has physical presence in other major cities in Asia and the United States. The industrial bank and VC Firm C also maintain that for their condition of top-tier venture capitalist, the start-up firm acquires a prestige that also adds value to its overall business.

6.8 Exit Strategies

All venture capitalists claim to consider exit potential and methodologies from day one of investment in a start-up (or as an investment parameter). VC Firms A, B and C plus the industrial bank mentioned an active participation in the so-called “gray market” as a relatively liquid market to realize some of their investments. IPO’s are said to be mostly planned jointly with investment bankers and underwriters belonging to the business network of those venture capitalists. However, VC Firm B and the insurance company tend to follow closely the steps taken by the venture capitalists investing in the start-ups.

6.9 Employee Education and Background

6.9.1 Educational Level

Only VC Firms mentioned having professionals with PhD degrees in their investment management teams. The venture capitalist with a high percentage of masters' degree holders is the industrial bank with 66%. The other ones fall way lower with 34% for both the insurance company and VC Firm B, 30% for VC Firm C and 26% for VC Firm A. Bachelors' degree graduates at the industrial bank were only 20% in comparison with 71% for VC Firm A, 68% for VC Firm C, 66% for the life insurance company and 59% for VC Firm B. The industrial bank reported 13% of its team to hold an specialty degree and VC Firm B reported a similar type of professional, but only of 3%. That specialty category may be quite extended but is believed to include technical school professionals (專科), etc.

6.9.2 Areas of Expertise

Data provided for this section is insufficient but it's quite important to discuss it. VC Firm C provided information but that assumes that one professional can have one or more areas of expertise (such as engineers with an MBA). For VC Firm C, the overweighed fields are business management, semiconductors but other important ones such as IT-related, finance and even law are included. In the other hand, the industrial bank didn't provide the exact same kind of information, but in the data set it shows that 75% of investment professionals are experts in the finance arena, biotech (13%), telecom (6%) and optoelectronics (6%) are mentioned too. Only the life insurer does not have engineers working in this kind of investments. VC Firm A and B affirm they have both engineers and inter-disciplined business professionals involved in their investment teams. In relation to engineering professionals, it's important to emphasize the concern made by VC Firm A and B, that some engineers do not feel enough job satisfaction by managing investments in late-stage start-ups.

6.9.3 Employee Development Program

The only venture capitalist that claims to have a program of such nature is VC Firm C with quite an interesting approach including technical workshops and other activities to feed the knowledge of its professionals in a variety of fields. Other ones such as the industrial bank and VC Firm A encourage employees to join seminars and industry-related activities. A quite different but appealing fact, is the insurance company, which assists its investment team to obtain the Chartered Financial Analyst

(CFA) certification. Due to the nature of its business VC Firm B acknowledged the lack of a program for employee development purposes.

In order to have a clearer picture of all the information this research paper has gathered, Table 3 displays the most relevant information, although specific from each one of the surveyed venture capitalists are not included:

Table 3. Comparison of variables for all five surveyed venture capitalists.

	VC FIRM A	VC FIRM B	VC FIRM C	LIFE INSURER	INDUSTRIAL BANK
Sources of Capital	Individuals, Institutional investors. (Taiwanese)	Institutional Investors (Taiwanese)	Individual, Institutional Investors (Foreign & Taiwanese)	Life Insurance business	Banking Business (subsidiary also does active search of funds)
Active search of capital for investment	YES	YES	YES	NO	NO (Subsidiary: YES)
Asset Allocation (Stage)	Overweighs Mezzanine, Expansion Also invests in Seed, Start-up	Not specific, but overweighs Mezzanine No Seed, Start-up	Overweighs Expansion No investments in Seed or Turnaround	Highly overweighs Mezzanine stage Rest of capital into Expansion stage	Overweighs Expansion but invests in all stages
Asset Allocation (Sector)	Semiconductor, wireless, telecom, optoelectronics, software, biotech and also outsources to US venture capital firms	Semiconductor, IC design, Optoelectronics, Telecom, biotech NO outsourcing	Optoelectronics, Semiconductor, telecom, software, NO outsourcing NO biotech	Semiconductors, IC design, software, wireless biotech. Major part of capital outsourced to other VC fund managers	Semiconductor, Telecom, Optoelectronics, Biotech, software and outsourced to other VC fund managers
Geographic Asset Allocation	Overweighs Taiwan. Also invests in Mainland China (indirectly) and in US (Chinese-ethnic entrepreneurs)	Only invests in Taiwanese start-ups.	Overweighs Taiwan. Second Mainland China (indirect investments) and third the US.	Only invests in Taiwanese start-ups.	Overweighs Taiwan. Less than 10% allocated abroad.
Sources of Deal Flows	Referrals, active search	Referrals, active search	Referrals, active search	Referrals	Referrals, active search

General Investment Criteria	Reliable Management Team. Start-ups with efficient business models	Profitable operations for at least 2 years. Qualified management team. Start-up invested by other VC's.	High potential to develop new markets. Capable and reliable management team.	Start-up must already be invested by other renowned VC firms.	Management team with a good technology-business ability balance. Consistent funding of R&D activities.
Pre-Investment Activities	Surveys customers, suppliers and employees. Financial Analysis	Surveys customers, suppliers and employees. Financial Analysis	Deeper approach based on sensitivity analysis, surveys customers suppliers. Deeper employee analysis	Does not survey employees, customers or suppliers, but collect similar information from other VC's	Beside customers, employees and suppliers, also surveys shareholders. Willing to do Deal Structuring
Post-Investment Activities	Quarterly Financial and business condition assessment. Keep attention to key HR flow	Quarterly Financial and business condition assessment. Keep attention to key HR flow	Quarterly Financial and business condition assessment. Keep attention to key HR flow. More frequent on-site evaluation of start-up. Always have one seat in the board of directors.	Quarterly financial analysis. Collect relevant information from other VCs investing in the start-up.	Quarterly financial analysis and business condition assessment. Also collect other information from other VCs.
Added-Value Venture Capital	Strategic, Tactical & Operational Business Consulting. Access to network of professionals, customers, business partners and other VC's	Strategic, Tactical & Operational Business Consulting. Also assist in technology-related issues. Access to International network of professionals, customers, business partners and other VC's.	Strategic, Tactical & Operational Business Consulting. Access to network of professionals, customers, business partners and other VC's	Do not serve as consultant for the start-up, but can provide access to network of professionals, banks, etc.	Strategic, Tactical & Operational Business Consulting. Access to network of professionals, customers, business partners and other VC's
Exit Strategies	IPOs, secondary sales in the Taiwanese "gray market", liquidations, write-offs.	IPOs, secondary sales in the Taiwanese "gray market", liquidations, write-offs. Tend to	IPOs. Secondary sales are preferred to be done as "block-trades". Taiwanese "gray market" is rarely	IPOs, secondary sales in the Taiwanese "gray market", liquidations, write-offs. Tend to	IPOs, secondary sales in the Taiwanese "gray market", liquidations, write-offs.

		follow steps taken by other big VCs investing in the start-up.	utilized. Liquidations, writeoffs.	follow steps taken by other big VCs investing in the start-up.	
Employee Background	Majority of employees are bachelors' degree holders but also have Masters' and a few PhDs. Diverse Background	Majority of employees are bachelors' degree holders but also have Masters' and a few PhDs. Diverse background	Majority of employees are bachelors' degree holders but also have Masters' and a few PhDs. Higher number of engineers among all surveyed firms	No PhDs. No engineers. Some employees have insurance business background, holding either masters' or bachelor's degrees.	No PhDs but more than 10% are graduated from technical schools. A small number of employees are engineers, but majority are financial experts.
Employee Education	No specific program designed, but encourages employees to join seminars, etc.	No program designed. Nature of their business model doesn't allow employees to pursue further training	Development program already designed, including technical workshops with invested companies and others.	No specific program designed, but employees are included in CFA certification program.	No specific program designed, but encourages employees to join seminars, etc.