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AUTHOR(S):

Hamada, Yasuyuki; Kirihata, Tetsuya; Katagawa, Mami

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Yasuyuki Hamada[1], Tetsuya Kirihata[2], Mami Katagawa[3]

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[1] Mitsubishi UFJ Capital Chair of Venture Capital/Private Equity Management, Graduate School of Management, Kyoto University, Yoshida-hommachi, Sakyo-ku, Kyoto, 606-8501, JAPAN. E-mail; hamada@econ.kyoto-u.ac.jp
[2] Research Center for Advanced Science and Technology, Nara Institute of Science and Technology, Takayama 8916-5, Ikoma, Nara, 630-0192, JAPAN. E-mail; kirihata@rsc.naist.jp.
[3] Mitsubishi UFJ Capital Chair of Venture Capital/Private Equity Management, Graduate School of Management, Kyoto University, Yoshida-hommachi, Sakyo-ku, Kyoto, 606-8501, JAPAN. E-mail; katagawa@econ.kyoto-u.ac.jp

1. Preface

Thirty-five years ago, some members of Kyoto Economic Council visited Boston and came across “Venture Capital” (hereafter abbreviated “VC”) which did not exist in Japan at that time. Although what they found was slightly different from what they had looked for, they tried to set up the first “Venture Capital Firm” (hereafter abbreviated “VCF”) in Kyoto.

Since then, Japanese VC has gone through ups and downs, and grown into a trillion yen industry. However, a trillion yen amount of VC’s total investment balance accounts only 0.2% of GDP in Japan. If we compare it with the total financial assets of 1,400 trillion yen and foreign VC’s balance of 30 trillion yen in the US (3% of its GPD), we can hardly claim that Japanese VC has developed suitably in its economy. Nevertheless, this shows that there is still a substantial room for further development, which makes VC still a promising industry in Japan.

Even though Japanese economy is acclaimed to have recovered since 2004, considering the existing regional economy and large income difference among people, we cannot be optimistic for the future. The economic recovery that represents a new era must be led by new industries. New industries require some amount of new investment like that of VC, in which Mrs. J. Jacobs described as “Development Capital”[4]. However, the amount of less than 0.2% of GDP seems insufficient for the new growth toward the future.

When the first VCF was established, VC was not known in the Japanese business world. When Japanese Venture Capital Association (JVCA) was established in 2001 by the effort of VC’s persons, VC was recognized as the front-line financial activity. VC movement in Japan continued to grow and eventually won its address in the financial world. It is expected to contribute to the revitalization of Japanese economy.

This is hence a good time to reconsider the role of VC and some subjects in which solutions are needed. For this purpose, many VCists and researchers from aboard were invited to join the International Venture Capital Forum held in Kyoto University in November 2006. Prior to this event, the questionnaire survey was conducted both with front-line VCFs and venture capitalists (hereafter abbreviated “VCist”) by Kyoto University. The summary of this questionnaire will be presented in this paper.

Up to present time, information on Japanese VC is available only from two research sources; Nikkei Newspaper and Venture Enterprise Center (VEC, METI’s research arm). The main aim for these researches is to indicate (1) the overall investment situation, such as the amount of investment and balance, and types of industry, and (2) the investment performance measured by IRR (internal rate of return). Dating back ten years prior to this, there was completely no available information concerning VC in Japan. This created so much difficulty in term of investment judgment among foreign investors and domestic potential investors like the pension funds.

As the first trial to fill up this information gap, VEC provided outline of VC in accordance to information (1) and (2) above. However, there is a need to step further into information

[4] See Jacobs(1969).

concerning management behavior. Not as easy as it may sound, this information is hard to acquire. Many VCFs did not like to reveal their inside strategy and had a tendency to avoid clarifying their own standard of investment, or else, they would follow tacit custom of imitating behavioral path of the largest pioneer firm. This pattern started to change in the year 2000 when many so-called independent VC companies came into picture, one after another, and disclosed their own style of management behavior. Although there were many problems including scandals loomed up, this emergent of many VCFs brought about the new era of VC in Japan.

At present, there are still many issues related to VC that require careful attention. These are such issues concerning moral hazard problems between stockholders and investors of fund, disallocations of funds, first price-ceiling of IPO, low assessment of public offering prices, IPO standards of security markets, means for seeking suitable investment, methods for calculation, assessments of IRR and to name a few. Our concern lies at how useful academic method is in solving these problems. Even though all of these problems cannot be solved at once, the questionnaire survey was conducted to provide more information related to these issues, especially concerning moral hazard, offering price, the elements of enterprise value assessment and the elements of hands-on (various kinds of support along with the fund for the companies by VCists.)

Summary of research

- Although it is often stated that bio-technology comes next after the IT bubble, it might be not true for the case of VC investment. IT industry still exists as large as 40%, with conventional type of industry capturing close to 40% of the pie. In contrast to this, bio-technology remains only 17% at most. The investment to bio-technology seems not to have increased much because long-term investment requires rigid conditions and special knowledge.
- The ratio of cases using IPO as an exit of investment was nearly 30% (according to the investigation with VCFs), which was higher than that of foreign VCFs. Even though the investment in the U.S. and U.K. tends to be made in forms of M&A and MBO, the main business still remains not in private-equity but in VC in Japan. If the trend continues, the so-called “junior market” should be prepared (to prevent scandals and promote IPO), and relevant markets should be inevitably unified. On the other hand, the rate of “resale to other shareholders or their original owners,” and “insolvency, dissolution and liquidation” amount to more than 30% combined. As a consequent, the second-hand market is also required.
- The highest performance is achieved at sales after IPO at first price-ceilings. A possession of more than one year after IPO inversely deteriorates the performance.
- The problem of moral hazard does not yet appear on the surface. Even if it exists, it is well managed. In some cases, a stockholder of VCF and an investor of fund lie in the same person.
- The first price-ceiling reflects some problems that are believed to have caused by private investors’ behavior. Public offering price also seems to be fixed lower than public expectation, in which reflects a problem caused by the attitude of managing underwriter

(securities house).

- The crucial information used in selecting companies for investment is information concerning company's president and its surroundings, the market and products, the persuasive power of business plan, and to name a few.
- There is still no single standard method for valuation and such method is still being searched for.

This questionnaire survey was conducted with both firms and VCists who represent two different standpoints. Firms' questionnaire described the results of their past performance based on firms' report. On the other hand, VCists completed the questionnaires based on their own experiences. As a consequence, VCists answers can be assumed to be more realistic.

Capitalists' answers concerning information on investment assessment are rather high in many items. The use of evaluation method is also high among capitalists, but it does not mean that there is any specific method used for such assessment. By this, we can read the irresolute minds of capitalists on how they evaluate the industry. Expected profit rate by stage of development is also higher in capitalists than VCFs. This can possibly imply a stricter evaluation scheme among capitalists in this industry.

The view on first price-ceiling is different among firms and capitalists. The answer regarding first price-ceiling as a crucial problem is 12% among firms, but 22% among capitalists. The responses from firms which were conducted in planning and general affairs divisions may deviate from that by actual sections where crisis is taken more sensitively. Even in the setting of offering price, capitalists criticize firms' policy much stronger than firms do. While many capitalists regard low offer-price unreasonable and seek room for adjustment, firms claimed it to be "reasonable".

VCFs in Japan have a systematically organized process from investment findings to IPO. The significant task of capitalists lies at the process from the finding of investment to the execution of first investment. Many of capitalists must prepare for investment decision, nevertheless hardly involve in the making of such decision itself. They work hard to support companies until the companies grow. However, it is undeniable that the offer-price is decided by different elements far from the capitalists' efforts.

Although approximately 80% of capitalists come to notice problems of underwriting stock houses, companies do not. As many as 27% of capitalists asserted that under-pricing is caused by "The process of determining public offering price". At the same time, only 12% of the firms believed so. At this point, we can see the agony of capitalists who are active in first line business in Japan.

2. Research method and attribute of respondents

We conducted a postal questionnaire survey with Japanese VCFs and individual VCists, with an aim to uncover their investing activities. This section describes the research method and

attribute of respondents.

2.1 Research method

We sent out questionnaire forms from late July to mid August, 2006, to a total of 157 VCFs, namely corporate members of the Japan Venture Capital Association and companies listed on the "Japan Venture Capital Directory in FY2005" published by Venture Enterprise Center in 2006. This paper analyzes 41 VCFs responses in which returned before late September, 2006, having response rate of 26.1%. In this survey, we asked VCFs to present their official corporate views. Following the sending of these questionnaire forms, during late August to late September, we contacted non-responding VCFs via phone, fax, and e-mail to remind them of questionnaire response. At the same time, we conducted follow-up surveys with VCFs who had already returned the questionnaires.

Furthermore, we approached VCists both directly and indirectly through VCFs listed above, and asked them to participate in our questionnaire survey. In this survey, "VCists" refers to individuals who are directly involved in VC investment processes, from finding and screening to post-investment activities including exiting, but excluding employees of VCFs who are in charge of other tasks rather than investment processes, such as those from general and personnel affairs. We sent out a range of 3 to 15 questionnaire forms to each VCF according to the size of their annual investment listed on FY2004. For this part, a total of 614 questionnaire forms were posted during late July and mid August 2006. This paper analyzes responses submitted by 105 VCists which were received before late September 2006. In this survey, VCists were asked to respond based on their individual experiences and points of view. Following the sending of questionnaire forms, from late August to late September, we contacted non-responding VCists directly or through VCFs via phone, fax, and e-mail to remind them of questionnaire response. At the same time, we conducted follow-up surveys with VCists who had already returned the questionnaires.

2.2 Attribute of respondents

2.2.1 VCFs

Among 41 valid responses from VCFs, 3 were established in the 1960s, 2 in the 1970s, 9 in the 1980s, 11 in the 1990s, and 16 in the 2000s. The average number of employees is 86.41 (standard deviation: 221.78). For the past decade (since April 1996), these VCFs have invested in 293.35 companies on average (standard deviation: 426.30)

The average breakdown by business category of investee companies in which respondents invested in since April 1996 is as follows: IT-related business (communication, computer, internet, semi-conductor, and other electronic components), 38.9%; bio-technology, medical and healthcare service industry, 17.4%; industrial and energy services (agriculture, forestry, fishery, construction, industrial and energy service, manufacturing, transportation, and utility service), 19.8%; products/services (business- and consumer-related services, finance, insurance, and real estate), 17.6%; others, 6.2%.

Regarding the average breakdown of exits among these investee companies, 29.4% of investee companies were IPOed, 9.45% were merged/acquired for further business development, 18.6% were sold to other shareholders or their original owners, 15.5% went bankrupt or were dissolved/liquidated, and 27.7% were others.

2.2.2 VCists

The 105 responses show that respondents, on average, have been involved in investing activities as VCists for 7.38 years (standard deviation: 4.78), and non-investing activities for 3.59 years (standard deviation: 5.93). At the same time, the average number of years of business experience at non-VCFs is 8.55 years (standard deviation: 8.45).

The number of investee companies in which respondents had been in charge of since April 1996, but excluding the ones in their current charge, is 28.36 on average (standard deviation: 34.98). Among these companies, new technology-based investee companies having filed patents or achieved other technical innovations account for 33.0% on average (standard deviation: 31.83). The average number of investee companies in which respondents are presently in charge of is 16.25 (standard deviation: 17.24), having new technology-based investee companies of 39.6% on average (standard deviation: 34.21).

The average breakdown by business category of investee companies in which respondents had been in charge of since April 1996 (excluding the ones in their current charge) is as follows: IT-related business, 39.7%; bio-technology, medical and healthcare service industry, 13.2%; industrial and energy services, 13.7%; products/services, 29.5%; others, 3.6%. Additionally, the average breakdown of investee companies in which respondents are presently in charge of is as follows: IT-related business, 38.2%; bio-technology, medical and healthcare service industry, 19.3%; industrial and energy services, 12.2%; products/services, 26.8%; others, 3.3%.

Regarding the average breakdown of exits of investee companies in which respondents had been in charge of since April 1996 (excluding the ones in their current charge), 25.6% of investee companies were IPOed, 9.6% were merged/acquired for further business development, 23.9% were sold to other shareholders or their original owners, 11.5% went bankrupt or were dissolved/liquidated, and 29.0% were others.

Respondents were asked to identify the stage of development, during the time of investment, of investee companies in which respondents had been in charge of since April 1996 (excluding the ones in their current charge). The average results are as follows: Start-up Stage (from inauguration to achievement of sales), 17.6%; Early Stage (from achievement of sales to achievement of single-year profit), 35.9%; Growth Stage (from achievement of single-year profit to elimination of cumulative loss), 22.9%; Later Stage (from elimination of cumulative loss to IPO), 22.2%. In addition, the stage of development of investee companies in which respondents are presently in charge of is as follows; Start-up Stage, 21.6%; Early Stage, 38.2%; Growth Stage, 22.5%; Later Stage, 17.5%.

3. Conflicts of Interest

There are two types of conflicts of interest involving VCFs, their shareholders, and investors of VC funds. The first type is a "conflict of interest between VCFs' direct investment and funds". This type of conflict arises at the stage of determining which of these two investment kinds should be invested in promising companies, or how they should be allocated for investment. The second type of conflict is a "conflict of interest among VC funds". This arises in similar circumstance, but among VCFs who manage multiple funds at a time. Specifically, it is the conflict of interest when determining which fund to be invested in promising companies, or how they should be allocated for investment.

In this survey, VCFs were asked whether they had experienced any conflict of interest among VCFs, their shareholders and investors of VC fund (e.g. whether they had received complaints from any of their fund investors). 7.3% of them (3 VCFs) replied "yes", while 80.5% replied "no". 12.2% of the respondents did not answer the question. The 3 VCFs who replied "yes" were further asked how they coped with the situation. All of them responded that they had established clear internal standards that were satisfactory to all stakeholders.

The questionnaire then asked if respondents had experienced any conflict of interest among VC funds (e.g. whether they had received complaints from any of their fund investors). 4.9% (2 VCFs) replied "yes", while 82.9% replied "no". 12.2% of the respondents did not answer the question. The 2 VCFs who replied "yes" were further asked how they coped with the situation. Both of the respondents stated that they had established clear internal standards in which were satisfactory to all stakeholders.

4. Investment Decision Making

4.1 Source of information

To determine the main sources of information used in deciding investment destinations, VCFs and VCists were asked to rate the following items on a scale of 1 (never use) to 5 (always use). These items were selected based on the study by Manigart, Waele, Wright, Robbie, Desbrieres, Sapienza, Beekman (2000): (1) Curriculum vitae of management, (2) Interviews with management, (3) Interviews with other company personnel, (4) Sales and marketing information, (5) Production capacity/technical information, (6) Own due diligence report, (7) Due diligence by accounting/consulting firms, (8) Business plan (overall consistency), (9) Business plan (P/L), (10) Business plan (B/S), (11) Business plan ("latest period" financial statements), (12) Business plan (more than 1 year ahead), (13) Business plan (qualified audit report).

Among VCFs, (2) Interviews with management was ranked the highest on average, followed by (1) Curriculum vitae of management, (11) Business plan ("latest period" financial statements), and (8) Business plan (overall consistency). VCists also ranked (2) Interviews with management the highest on average, followed by (1) Curriculum vitae of management, (11) Business plan ("latest period" financial statements), and (9) Business plan (P/L) (see Table 1). The comparison between these results and the results shown in Manigart et al. (2000) indicates that Japanese VCFs

and VCists place more importance on curriculum vitae of managements and interviews with them for decision making than their counterparts.

Table 1: Sources of information for valuation

	VCF	VCist	Manigart et al. (2000)			
			U.S.	U.K.	N&B	Fran
(1) Curriculum vitae of management	4.73	4.80	4.19	3.91	4.34	4.41
(2) Interviews with management	4.93	4.91	4.22	3.65	4.47	4.25
(3) Interviews with other company personnel	4.30	4.51	3.74	3.17	4.00	4.25
(4) Sales and marketing information	4.62	4.73	3.89	3.80	4.24	4.25
(5) Production capacity/technical information	4.59	4.63	3.71	3.42	3.71	4.19
(6) Own due diligence report	4.30	4.10	4.88	4.47	4.61	4.57
(7) Due diligence by accounting/consulting firms	3.30	3.66	3.82	3.75	4.03	4.03
(8) Business plan (overall consistency)	4.63	4.77	4.19	4.06	4.47	4.77
(9) Business plan (P/L)	4.50	4.79	3.81	4.36	4.48	4.38
(10) Business plan (B/S)	4.33	4.42	3.42	4.00	4.26	4.31
(11) Business plan ("latest period" financial statements)	4.65	4.80	3.40	4.03	4.08	4.57
(12) Business plan (more than 1 year ahead)	4.58	4.67	3.27	3.63	4.03	4.36
(13) Business plan (qualified audit report)	3.65	3.78	3.41	3.70	4.21	4.44

Note: VCF: N=41, VCist: N=105, Manigart et al. (2000), p.399

(N=73 in the U.S., N=66 in the U.K., N=38 in Netherlands and Belgium, N=32 in France).

4.2 Valuation methods

To determine methods used in valuating potential investments, VCFs and VCists were asked to rate the following items on a scale of 1 (never use) to 5 (always use). These items were selected based on the studies by Manigart et al. (2000), and Timmons (1992): (1) Capitalized maintainable earning (P/E multiples), (2) Capitalized maintainable earning (EBIT multiples), (3) Recent transaction prices for acquisitions in the sector, (4) Discounted value of free cash flows, (5) Pay back period, (6) Dividend yield-based, (7) Investor's special "Rule of thumb" pricing ratios and (8) First Chicago method – calculating IRR based on weight averaged earning probabilities of three outcome scenarios: success (IPO), sideways survival, and failure (liquidation).

Among VCFs, (1) Capitalized maintainable earning (P/E multiples) was ranked the highest on average, followed by (7) Investor's special "Rule of thumb" pricing ratios, (4) Discounted value of free cash flows, and (5) Pay back period. On the other hand, VCists ranked (7) Investor's special "Rule of thumb" pricing ratios the highest on average, followed by (1) Capitalized maintainable earning (P/E multiples) and (5) Pay back period (see Table 2).

Table 2: Methods used in valuating potential investments

	VCF	VCist	Manigart et al. (2000)			
			U.S.	U.K.	N&B	Fran
(1) Capitalized maintainable earning (P/E multiples)	4.05	4.08	3.63	4.31	3.58	3.66
(2) Capitalized maintainable earning (EBIT multiples)	3.34	2.84	3.83	3.90	3.76	3.66
(3) Recent transaction prices for acquisitions in the sector	3.19	3.09	3.78	3.63	3.61	4.22
(4) Discounted value of free cash flows	3.79	3.27	3.62	―	3.89	3.26
(5) Pay back period	3.73	3.90	3.47	―	2.92	4.20
(6) Dividend yield basis	2.12	1.62	2.14	2.22	3.03	2.29
(7) Investor's special "Rule of thumb" pricing ratios	4.00	4.10	―	―	―	―
(8) First Chicago method	2. 00	1.66	―	―	―	―

Note: VCF: N=41, VCist: N=105, Note: VCist: N=105, Manigart et al. (2000), p.399
(N=73 in the U.S., N=66 in the U.K., N=38 in Netherlands and Belgium, N=32 in France).

4.3 Share price, expected duration to exit, and possibility of IPO

To determine which factors can affect investment decision making, VCFs and VCists were asked to rate the following factors on a scale of 1 (not important) to 5 (very important). We selected the following factors based on the study by Hamada (1996): (1) Share price at the time of investment, (2) Expected duration to exit, (3) Expected share price at exit, and (4) Possibility of IPO. On average, both VCFs and VCists assigned the highest ranking to (1) Share price at the time of investment, followed by (3) Expected share price at exit (see Table 3).

Table 3: Important factors for decision making in investment

	VCF		VCist	
	Mean	S D.	Mean	S D.
(1) Share price at the time of investment	4.55	0.74	4.66	0.68
(2) Expected duration to exit	4.20	0.72	4.26	0.90
(3) Expected share price at exit	4.44	0.81	4.59	0.73
(4) Possibility of IPO	4.13	0.93	4.28	0.98

Note: VCF: N=41, VCist: N=105

4.4 Expected internal rate of return.

VCFs and VCists were asked to indicate the expected internal rate of return at each stage of development of investee companies. For this purpose, we adopted the four stages of development advocated by Maison and Harrison (1999), namely, (1) Start-up stage (from foundation to achievement of sales), (2) Early stage (from achievement of sales to achievement of single-year profit), (3) Growth stage (from achievement of single-year profit to elimination of cumulative loss), and (4) Later stage (from elimination of cumulative loss to IPO). The ranges of expected internal rate of return given as answer choices on the questionnaire form were (1) 0-10%,

(2) 10-20%, (3) 20-30%, (4) 30-40%, (5) 40-50%, (6) 50-60%, (7) 60-70%, (8) 70-80%, and (9) 80-100%. The class value of each of these figures were set at (1) 5%, (2) 15%, (3) 25%, (4) 35%, (5) 45%, (6) 55%, (7) 65%, (8) 75%, and (9) 90%.

Among VCFs, the average expected internal rate of return at each stage of development for investee companies is as follows: Start-up stage, 62.5% (standard deviation: 23.00); Early stage 54.1% (standard deviation: 19.82); Growth stage, 40.8% (standard deviation: 16.81); Later stage, 30.1% (standard deviation: 17.29).

Among VCists, on the other hand, the following results were obtained. Start-up stage, 70.3% (standard deviation: 21.55); Early stage, 58.7% (standard deviation: 19.79); Growth stage, 43.6% (standard deviation: 17.33); Later stage, 30.2% (standard deviation: 17.07). At each of these stages of development, figures of VCists are somewhat higher than those of VCFs.

5. Post investment activities

5.1 Frequency of financial statements, management reports, and business plans submission

VCists were asked to indicate, on average, how often they request investee companies to submit financial statements, management reports and business plans. The respondents were to choose among answer choices of (1) Monthly, (2) Quarterly, (3) Biannually, (4) Annually, or (5) Never. The results show that respondents requested investee companies they are presently in charge of to submit financial statements, management reports, and business plans more often than investee companies they had been in charge of since April 1996 (excluding the ones in their current charge). On average, this former group of investee companies is required to submit financial statements and management reports (1) Monthly, or (2) Quarterly, and business plans (3) Biannually or (4) Annually (see Table 4). Comparing this with the survey conducted by Higashide and Birley (1999) for VCists in the U.K. in 1997, it is evident that Japanese VCists require submission of financial statements, management reports and future business plans less frequently than their counterparts in the U.K.

5.2 Communication methods and frequency

VCists were asked to indicate how often and by what means they communicate with investee companies. The respondents were to choose between (1) Daily, (2) Twice a week, (3) Weekly, (4), Biweekly, (5) Monthly, (6) Quarterly, or (7) Less than quarterly, for frequency of communication, and “Face-to-face”, “Telephone and e-mail”, and “Letter”, for modes of communication. The results show that respondents communicate slightly more frequently, in all means of communication (“Face-to-face”, “Telephone and e-mail”, and “Letter”), with investee companies they are presently in charge of than with those they had been in charge of since April 1996 (excluding the ones in their current charge). On average, they communicate with investee companies by “Face to face” meeting (5) Monthly or (6) Quarterly, by “Telephone and e-mail” (4) Biweekly or (5) Monthly, and by “Letter” (6) Quarterly or (7) Less than quarterly. Comparing this with the survey conducted by Higashide and Birley (1999), it is evident that Japanese VCists

communicate with investee companies less frequently than their counterparts in the U.K., for all methods of communication. It should be noted that e-mail was not included in the answer choice offered by Higashide and Birly (1999) (see Table 5).

Table 4: Frequency of submitting: FS, management reports, business plans

		(1)Monthly	(2)Quarterly	(3)Biannually	(4)Annually	(5)Never	N / A	Mean	S D.
Financial Statements	1996-	35.2%	21.0%	25.7%	9.5%	0.0%	8.6%	2.10	1.04
	Present	47.6%	28.6%	15.2%	3.8%	0.0%	4.8%	1.74	0.87
	Higashide&Birley	96.7%	1.3%	0%	2.5%	0%	-	1.1	0.5
Management Reports	1996-	36.2%	26.7%	22.9%	3.8%	0.0%	10.5%	1.94	0.91
	Present	49.5%	36.2%	9.5%	1.0%	0.0%	3.8%	1.60	0.70
	Higashide&Birley	83.5%	8.9%	0%	2.5%	5.1%	-	1.4	1.0
Business Plans	1996-	5.7%	11.4%	26.7%	41.0%	4.8%	10.5%	3.31	0.98
	Present	7.6%	15.2%	33.3%	37.1%	1.9%	4.8%	3.11	0.97
	Higashide&Birley	36.7%	24.1%	17.7%	16.5%	5.1%	-	2.3	1.3

Note: VCist: N=105, Higashide and Birley (1999), p.88.

Table 5: Communication methods and frequency

		(1)Daily	(2)Twice/week	(3)Weekly	(4)Biweekly	(5)Monthly	(6)Quarterly	(7)Lesser	Mean	S D.
Face to Face	1996-	0.0%	2.9%	3.8%	17.1%	32.4%	26.7%	8.6%	5.11	1.14
	Present	0.0%	1.9%	1.9%	21.9%	49.5%	18.1%	2.9%	4.92	0.89
	Higashide& Birley	0.0%	2.5%	7.5%	23.8%	37.8%	25.0%	3.8%	4.9	1.1
Telephone &e-mail	1996-	1.9%	7.6%	15.2%	17.1%	31.4%	14.3%	3.8%	4.39	1.37
	Present	2.9%	8.6%	23.8%	32.4%	22.9%	5.7%	0.0%	3.84	1.15
	Higashide& Birley	6.3%	13.8%	26.3%	31.3%	15.0%	6.3%	1.3%	3.6	1.3
Letter	1996-	0.0%	1.0%	1.0%	0.0%	15.2%	21.0%	49.5%	6.32	0.96
	Present	0.0%	0.0%	1.0%	1.9%	21.0%	17.1%	49.5%	6.24	0.95
	Higashide& Birley	0.0%	3.8%	15.0%	13.8%	31.3%	25.0%	11.3%	4.9	1.3

Note: VCist: N=105, Higashide and Birley (1999), p.89.

5.3 Initiation of the replacement of investee companies' management

VCists were asked whether they had ever initiated a replacement of management (president and board members) of investee companies they had been in charge of since April 1996 (excluding the ones in their current charge). 50.5% of them replied they had. The average number of investee companies they had interfered in such manner is 3.04 (standard deviation: 2.62).

5.4 Experience in supporting management

VCists were asked to indicate how they had supported the management of investee companies by choosing appropriate items listed below. The following items were selected based on studies by Harrison and Mason (1992), Higashide and Birley (1999), and Kirihata (2006): (1) Debt/equity arrangements, (2) Financial Advice, (3) Advice as mentor/coach, (4) Recruitment assistance, (5) Internal control/regulations, (6) Business strategies adjustment, (7) Professional contacts (accountant, etc.), (8) Industry competition advice, (9) Marketing plan, (10) Advice on short-term crisis, and (11) Advice on private matters.

Most VCists ranked (2) Financial Advice the first, followed by (1) Debt/equity arrangements, and (7) Professional contacts. Taking in account of the studies by Harrison and Mason (1992), Higashide and Birley (1999), and Kirihata (2006), we further calculated average values of the 7 comparable items from the list above. The results are as follows: this study, 72.6%; Kirihata (2006), 66.5%; Higashide and Birley (1999), 68.8%; and Harrison and Mason (1992), 51.1%. The average number in our study is the highest among all.

Table 6: Experience in supporting venture management

	VCist	Kirihata (2006)	Higashide& Birley (1999)	Harrison& Maison (1992)
(1) Debt/equity arrangements	87.6	75.0	72.5	49.4
(2) Financial Advice	91.4	84.4	82.5	N/A
(3) Advice as mentor/coach	72.4	62.5	92.5	41.3
(4) Recruitment assistance	79.0	62.5	53.8	39.7
(5) Internal control/regulations	40.0	-	-	-
(6) Business strategies adjustment	75.2	71.9	71.3	61.5
(7) Professional contacts (accountant, etc.)	87.6	84.4	72.5	N/A
(8) Industry competition advice	71.4	75.0	41.3	44.2
(9) Marketing plan	57.1	62.5	80.0	51.3
(10) Advice on short-term crisis	65.7	56.3	70.0	70.5
(11) Advice on private matters	63.8	62.5	60.0	N/A

Note: VCist: N=105, Ratio of VCists involved in venture management (%).

This table is based on selected parts of data shown in Harrison and Mason (1992), Higashide and Birley (1999), Kirihata (2006) and the results of our questionnaire survey.

5.5 The main causes of failure of investee companies

We asked VCists to select their three most recent cases of investee companies ended in “bankruptcy, dissolution or liquidation”, or “sale to other shareholders or their original owners” and indicate the causes of these failures. Multiple answers were allowed and we received 201 valid responses for this section. The figures shown in Table 7 indicate the percentage share of

each answer among these valid responses. The causes of failure offered as answer choices in this questionnaire were selected based on the study by Gorman and Sahlman (1989). The choices were (1) Ineffective senior management, (2) Ineffective functional management, (3) Failure in developing expected end user market, (4) Poor channel selection/channel resistance, (5) Competition, (6) Poor products/market fit, (7) Development delayed or unsuccessful, (8) Manufacturing Failure, (9) Poor product/service performance, (10) Inadequate quality control, and (11) Failure in recruitment and human resource development. Among them, (1) Ineffective senior management was ranked the first, followed by (3) Failure in developing expected end user market, (2) Ineffective functional management, and (7) Development delayed or unsuccessful. In a similar survey conducted with VCists in the U.S. (Gorman and Sahlman, 1989), (1) Ineffective senior management also was ranked the first, followed by (7) Development delayed or unsuccessful, (2) Ineffective functional management, and (3) Failure in developing expected end user market. These results indicate that there is only little difference between U.S. and Japanese VCists in recognizing the causes of failure of investee companies (see Table 7).

Table 7: Causes of failure

		VCist	Gorman&Sahlman (1989)
Management problems	(1) Ineffective senior management	72.6%	95%
	(2) Ineffective functional management	46.3%	50%
Market problems	(3) Failure in developing expected end user market	51.7%	43%
	(4) Poor channel selection/channel resistance	22.9%	35%
	(5) Competition	23.4%	34%
	(6) Poor products/market fit	18.4%	28%
Product problems	(7) Development delayed or unsuccessful	38.3%	51%
	(8) Manufacturing Failure	10.9%	11%
	(9) Poor product/service performance	25.9%	18%
	(10) Inadequate quality control	10.4%	13%
HR problems	(11) Failure in recruitment and human resource development	30.8%	-
	Other	9.0%	-

Note: VCist: N=105, multiple answers allowed,
% figures represent ratio of each item among all 201 valid responses in our survey,
and 96 valid responses in the study by Gorman and Sahlman (1989).

6. The gap between public offering and opening price

6.1 Timing of sale of shares and assessment of capital gain realized

VCFs were asked to locate timings after IPO for the sales of shares of investee companies they

had been in charge of since April 1996. They were also asked to assess the capital gains realized from these sales of shares at each timing period. For the timing of sales, they were allowed to choose an answer among (1) Less than 1 month immediately following IPO, (2) More than 1 month and less than 1 year following IPO, and (3) More than 1 year following IPO. The capital gains realized were to be assessed on a scale of 1 (large) to 5 (small).

For average timing of sales, (1) Less than 1 month immediately following IPO was ranked the first (41.8%), while (2) More than 1 month and less than 1 year following IPO, and (3) More than 1 year following IPO, respectively took 27.3% and 30.8% of the pie. Regarding capital gains realized from these sales, the average scores for (1) Less than 1 month immediately following IPO, (2) More than 1 month and less than 1 year following IPO, and (3) More than 1 year following IPO, were 1.84 (standard deviation: 1.11), 2.42 (standard deviation: 0.83), and 3.18 (standard deviation: 1.23), respectively. This illustrates that respondents recognized that sales of shares of (1) Less than 1 month immediately following IPO can realize the greatest capital gain.

6.2 Concern and seriousness in price difference

VCFs and VCists were asked whether they were concerned of the gap between public offering price and opening price. Among VCFs, results were as follows: (1) Highly concerned, 22.0%; (2) Concerned, 51.2%; (3) Not very concerned, 19.5%; (4) Not concerned at all, 0%; and no response or other, 7.3%. Among VCists, results were as follows: (1) Highly concerned, 20.0%; (2) Concerned, 50.5%; (3) Not very concerned, 21.9%; (4) Not concerned at all, 3.8%; and no response or other, 3.8%. As the results reveal, there seems to be little difference between the perceptions of VCFs and VCists in this regard.

However, regarding the gap between public offering price and opening price, the answers reflect some differences. VCFs responded that they found this gap to be: (1) Very problematic, 12.2%; (2) Problematic, 61.0%; (3) Not very problematic, 14.6%; (4) Not at all problematic, 4.9%; and no response or other, 7.3%. At the same time, VCists considered it to be: (1) Very problematic, 22.9%; (2) Problematic, 49.5%; (3) Not very problematic, 18.1%; (4) Not at all problematic, 1.9%; and no response or other, 7.6%. While only 12.2% of VCFs responded that they considered this issue to be very problematic, the number of VCists who perceived similarly nearly doubled at 22.9%.

6.3 Public offering price

VCFs and VCists were asked for their opinions regarding public offering price. The responses of VCFs were as follows: (1) Public offering price is set below the actual value of the company, 29.3%; (2) Public offering price reflects the fair value of the company, 43.9%; (3) Public offering price is set above the actual value of the company, 9.8%; (4) Other, 12.2%; and no response, 4.9%. Among VCists, the responses were: (1) Public offering price is set below the actual value of the company, 35.2%; (2) Public offering price reflects the fair value of the company, 33.3%; (3) Public offering price is set above the actual value of the company, 17.1%; (4) Other, 12.4%; and no response, 1.9%.

The VCFs and VCists who selected (1) Public offering price is set below the actual value of the company and (3) Public offering price is set above the actual value of the company as their answers were further asked to indicate who/what they thought was responsible for such under/overpricing. Possible answers provided in this questionnaire were (1) Managing underwriter, (2) Investors involved in the IPO, (3) The process of determining public offering price, and (4) Other. Among VCFs, (1) Managing underwriter was ranked first (87.5%), followed by (2) Investors involved in the IPO (18.8%), (3) The process of determining public offering price (12.5%), and (4) Other (12.5%). Among VCists, (1) Managing underwriter was also ranked first (78.2%), followed by (3) The process of determining public offering price (27.3%), (2) Investors involved in the IPO (23.6%), and (4) Other (14.5%). Notably, the percentage of VCists who selected (3) The process of determining public offering price (27.3%) is more than double that of VCFs' (12.5%).

6.4 Opening price

VCFs and VCists were asked for their opinions regarding opening price. The responses of VCFs were as follows: (1) Opening price is set below the actual value of the company, 0.0%; (2) Opening price reflects the fair value of the company, 9.8%; (3) Opening price is set above the actual value of the company, 68.3%; (4) Other, 12.2%, and no response, 9.8%. Among VCists, answers were (1) Opening price is set below the actual value of the company, 1.9%; (2) Opening price reflects the fair value of the company, 5.7%; (3) Opening price is set above the actual value of the company, 64.8%; (4) Other, 14.3%, and no response, 13.3%.

The VCFs and VCists who selected (1) Opening price is set below the actual value of the company, and (3) Opening price is set above the actual value of the company as their answers where further asked to indicate who/what they thought was responsible for such under/overpricing. Among VCFs, (2) Investors involved in the IPO was ranked first (71.4%), followed by (1) Managing underwriter (17.9%), (3) The process of determining public offering price (7.1%), and (4) Other (10.7%). The results were similar for VCists, who also ranked (2) Investors involved in the IPO first (65.7%), followed by (1) Managing underwriter (20.0%), (3) The process of determining public offering price (5.7%), and (4) Other (21.4%), accordingly.

6.5 Interest in academic research and application of research results

VCFs were asked to specify to which extent they were interested in academic research concerning the gap between public offering price and opening price. The replies were as follows: (1) Very interested, 9.8%; (2) Interested, 51.2%; (3) Not very interested, 29.3%; (4) Not at all interested, 4.9%; and no response, 4.9%. VCFs were also asked to which extent they had applied results of such research to their investment activities and the replies were: (1) Fully, 2.4%; (2) Moderately, 17.1%; (3) Seldom, 36.6%; (4) Never, 34.1%; and no response, 9.8%.

7. Closing remarks

In concluding this study, we would like to make some remarks on the differences found in VEC's and our studies.

First of all, in the study by VEC, the number of cases choosing IPO as their exit gate was 265 out of 537 cases, or approximately 50%, which was extremely high. In comparison to that, the numbers in our study were lower at only 29% for VCFs and 25% for VCists. The two studies were carried out roughly one and a half year difference in time span. However, IPO atmosphere was fairly similar during these periods of time (between 2004 and the middle of 2006). The numbers of IPO were 175 cases in 2004, 158 cases in 2005, and 200 cases in 2006, showing no significant difference as well. It is, therefore, difficult to mark time as a crucial cause of this discrepancy.

As a consequent, it can possibly be assumed that this large gap of IPO rates was caused by the difference in variety of samples used in the two studies. The companies we conducted this research with were relatively younger than those in VEC's report. They seemed to still be in the stage of holding their shares, waiting and preparing for IPO. There were also some differences in the ratio of industry breakdown. Although IT field captured the largest share of samples in both reports, it was 28% in VEC's but 38% in our study. In contrary, the ratio of bio-technology was 22% in VEC's and 17% in ours. The reason is similar to the one above. It is because our respondents were relatively younger. VCFs with short career path are likely to select IT over bio-technology because of the amount of investment capital required (IT industry requires relatively smaller amount of money). Additionally, because bio-technological industry does not grow as fast as being expected, the gap is then filled by the traditional sector. This implies that our research reflected a more realistic side of the coin.

In reality, there are actually not many investment opportunities in the field of bio-technology. IT field, on the other hand, is growing and increasing in both Nikkei and VEC. The total investment in IT increased to 77.3 billion yen, equivalent to 2.2 times the number in 2004. The amount of bio-technology, in contrary, declined for the first time in seven years at the rate of 7%, to the amount of 19.8 billion yen. This number could reflect the decline in the growth of ventures originated from universities, which is one of the driving forces of bio-technology.

Even though there has nothing to do with the study by VEC, the problem of moral hazard should be touched upon. As being mentioned by Mr.Tetsuo Kadowaki and some others, this problem is known as a problem in the structure of Japanese VCFs[5]. In this study, there were only 2-3 firms that were actually claimed by investors. Despite that, these companies revealed that it was only because of their already established internal standard on how to allocate investments. Considering this fact, it can possibly be stated that there is no particular problem in this respect at the surface.

This analysis still yet needs to be revised using data from follow-up surveys. However, in a lot of cases at this point, it seems that the shareholders of VCFs and their main investors of funds

[5] See Kadowaki(2003).

reside in the same persons. If this holds true, it implies that VC has not yet been popularized among public. According to a study by VEC, a ratio of individual investors raised from nearly none to 77 out of 391 persons during one year before 2005. This number is equivalent to 14% of total investment amount at that time. This remarkable increase in the number of individual investor is sufficient to predict more apparent problems of moral hazard in the near future.

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