

# Corporate Venture Capital: Organizational Issues & Trends

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## Executive Summary

This report summarizes our findings on prevailing issues and expected trends in corporate venturing. Based on 37 survey responses and 6 interviews, and in-depth analysis of academic and industry literature in this area, we have developed recommendations for corporations that intend to setup a CVC program, or benchmark their existing programs. Note that this research focused on organizational issues and success factors for CVC programs, instead of the investment criteria or performance statistics of CVCs.

The over-arching recommendation of this work is for CVCs to ensure consistency between their investment focus, organizational structure, compensation structure, hiring practices, and relationships with corporate business units and corporate leadership. We believe that maintaining this consistency aligns the incentives for all stakeholders in a CVC program, and mitigates the most common risks faced by them – e.g. conflict of interest with entrepreneurs and corporate units, high staff turnover, long-term survival issues, shortage of capital during economic downturns, and poor financial and/or strategic returns on investment.

Although we suggest three CVC designs based on the corporate venturing objectives, we recommend a combination of strategic and financial focus as the best option for most corporations. This investment strategy balances the source of returns for CVCs, while being the best way to extract value from the skill sets and resources that CVCs have to offer. Since a pure financial focus can be replicated by investing as a LP in an independent VC firm, and a purely strategic focus might lead to untenable financial losses over time, we support a combined investment focus to ensure the long-term success of corporate venturing. However, this demands a balancing act from CVCs along multiple dimensions, such as:

- Providing performance-based incentives to CVC staff w/o raising political/HR concerns
- Gaining support from corporate leadership w/o sacrificing autonomy, decision making speed
- Partnering with independent VCs w/o creating conflicts over valuations and dilution
- Leveraging corporate resources w/o dominating the strategies of portfolio companies
- Investing in disruptive technologies w/o creating rivalry with corporate business units

We found that CVCs who were able to maintain this balance were deemed the most successful in terms of their performance, long-term survival, industry perception and quality of deal flow. A final point is the need for CVCs to clearly define performance metrics – especially for measuring strategic returns on investment. We found this to be essential for gaining executive support, and demonstrating the business value created by CVCs.

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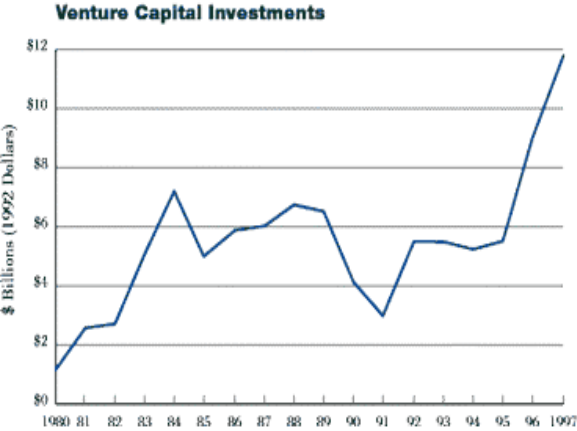
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# Introduction

Corporate Venture Capital (CVC) has taken up an increasing share of the total venture capital funding in the US, and is expected to continue this trend in the foreseeable future. Corporations increasingly view CVC as a means to keep an eye on technological trends, validate emerging markets, commercialize corporate IP, or simply participate in high risk/high return private equity investments. Since their ultimate goal is to maximize shareholder value, CVC programs significantly differ from independent VCs in their mission, organizational structure, compensation & hiring practices, investment strategies and long-term goals. This report seeks to capture the current state of CVC programs and trends that are expected to occur in the future, mainly with respect to organizational issues.

## Literature Review

Corporate venturing came into its own with the sharp rise of US venture capital funding in the mid-1980s. This was accompanied by a flurry of research activity, focused on either understanding VC success factors and decision-making processes, or the differences between CVCs and independent VCs.



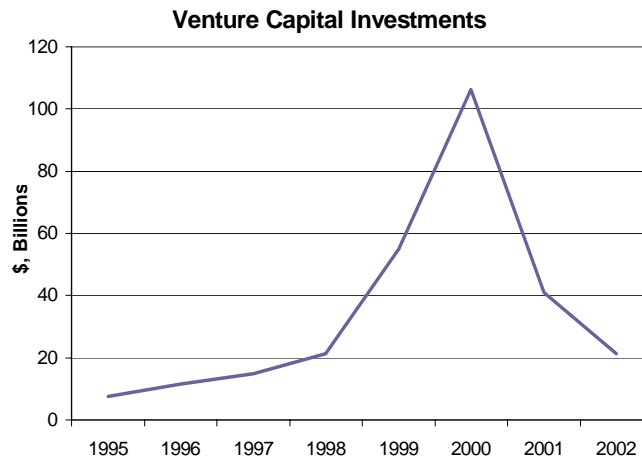
Source: <http://www.neweconomyindex.org/>

Block (1982) developed a detailed description of the venturing process and listed the key decisions and milestones that needed to be considered to avoid CVC failure. George and MacMillan (1985) conducted a survey of CVC experts and outlined two CVC stages (Creation and Momentum) along with corresponding challenges, including internal support, role of stakeholders, securing first five deals, aggressive learning from experience, developing

infrastructure, handling resource squeeze, etc. The survey respondents were asked to suggest solutions for managing these risks during each stage of the CVC program. Sykes (1986) identified intrinsic and extrinsic success factors for CVC, via observations and statistical analysis of Exxon's CVC investments between 1970 and 1980. The key factors were found to be CVC staff's experience in the market segments and their general managerial experience.

Siegel and MacMillan (1988) conducted a survey of the CVC community, with an aim to develop the ideal approach to corporate venturing. Some of their conclusions include the importance of autonomy and VC-like compensation, the need for experienced CVC staff, and an emphasis on financial returns (instead of strategic objectives) for the CVC program. To avoid the ambiguity in metrics for strategically focused CVC programs, CVCs were encouraged to explore alternatives such as joint ventures for strategically important (but financial poor) investments.

Research activities in corporate venture capital declined, along with VC investments, during the 1990-91 economic downturn. Sykes (1990) sought to explain the mixed results (and negative sentiment) for CVC investments made in the 1980s, attributing them to conflicts between corporations and their investments. This effort also considered the relatively new trend: independent VC funds that raised capital only from corporate LPs – combining strategic objectives of CVCs with the investing experience and financial focus of independent VC firms.



Source: NVCA

*NOTE: There is an "order of magnitude" difference on the Y-Axis (\$12B vs \$120B) between the 2 graphs.*

With the resurgence of VC funding in 1995, researchers began focusing on the factors that made CVCs unique. Sorrentino and Williams (1995) investigated the importance of the degree of strategic fit (termed by them as "relatedness") between CVC parents and CVC

investments. They combined perspectives from strategic management with corporate venturing and developed hypotheses that sought to relate strategic fit to investment success. The overall conclusion was that relatedness does not explain, by itself, ROI or market share, entry strategy, etc. Shrader and Simon (1997) sought to differentiate between CVCs and independent VCs w.r.t. access to capital, management controls, managerial incentives, HR issues and access to corporate assets. They found CVCs to have similar performance as independent VCs, but via unique investment strategies - targeting market niches, managing political obstacles, etc.

Hellman (1997) employed a theoretical model of VC investments and found that entrepreneurs would prefer strategic CVC investors in the absence of conflicts. However, in reality, the tendency of CVCs to exercise control on startup strategies and target markets creates distrust and causes entrepreneurs to prefer independent VCs. Hellmann also found that such conflict of interest issues depend on whether CVC investments are complementary to (or cannibalize) the parents' internal ventures. Lerner and Gompers (1998) analyzed a large sample of CVC and independent VC investments, and found that CVCs with strategic focus performed on par with independent VCs, while those without a strategic focus tended to be unstable and short-lived. Similar to Hellman, they found that complementarities are key to the success of CVC investments.

As seen in the graph, VC funding took off in 1998 with bullish US stock markets and the hype surrounding the Internet and the "New Economy". VC funding rose by almost an order of magnitude from 1995 to 2000, topping \$100 billion, and corporations entered the fray at a rapid pace to benefit from attractive investment returns, and strategic bets, on new technologies in the e-commerce, business software, semiconductor, biotech and telecom areas. This spotlight on venture capital generated a new round of research papers, and more importantly - media publications, on CVCs.

Chesbrough (2000) identified success factors for independent VCs and the ways in which CVC programs can be designed to incorporate these factors – including alignment of incentives, staged financing, VC involvement, and diverse investment portfolio. Chesbrough recommends CVC to have a strategic investment focus, in addition to mimicking independent VCs, and profiles Lucent's New Ventures Group for its innovative CVC structure. Maula (2001) researched into ways in which CVCs add value to their investments – via resource acquisition, knowledge acquisition and endorsement. Maula develops an empirical model and hypotheses

about CVC benefits, using both resource-based and knowledge-based views of corporations, and validation is done via surveys and interviews with CEOs of startups financed by CVCs.

Chesbrough (2002) developed a framework to classify CVC investments into 4 categories – combination of strategic vs. financial investment focus and loose vs. tight link between operational capability of CVC parent and CVC investments. Chesbrough recommends CVCs to choose among these 4 types of investments, depending on corporate goals. For example, to promote a technology standard, CVCs must combine strategic investment focus with tight operational linkage (termed as a “driving” investment) – such as Microsoft’s investments in startups that support the .Net architecture. Henderson and Leleux (2002) utilized a resource-based view of CVC parents to argue that CVCs with strategic focus could outperform independent VCs, provided they overcome obstacles such as lack of commitment or incentives, frictions with business units, etc. Estes (to be published, 2004) provides an informative look at CVCs, including type of investments, benefits and challenges, and details on the operational processes of CVC programs.

In addition to a surge in CVC research since 1997, several journals and magazines have regularly published articles covering the CVCs. Interviews with various CVC experts were the basis of several articles published in the Venture Capital Journal (VCJ), featuring prominent CVCs such as Intel Capital, Lucent Venture Partners, Motorola Ventures, etc. Asset Alternatives published a monthly report dedicated solely to Corporate Venturing, tracking the level of activity in CVC investments, new CVC programs and portfolio performance during 2001 and 2002.

Alistair (2000) focused on the transition of CVC investments from “dumb” money to “smart” money during the late 1990s, and explored the choices that CVCS need to make, such as strategic vs. financial focus, degree of involvement in investments, and compensation issues – via interviews with representatives from Siemens VC, Intel Capital, Dow VC, Motorola Ventures and several other CVC firms. It is interesting to note that CVCs were split on whether to choose strategic or financial objectives, but were unanimous in their concerns about compensation structures for CVC staff. Fellers (2001) covered the sharp fall in CVC portfolio performance in 2001, and highlighted the problems CVCs faced, such as the ambiguity in measuring strategic returns, corporate culture mismatch and conflict between startups and corporate management. Based on several interview with CVCs, Fellers noted that CVCs would have to adopt a long-term focus to survive the cycles of VC investing, and consider alternatives such as Advent International, an independent VC firm with corporate LPs. Sheehan (2002)

captured the fall in CVC funding and the exit of several corporations from the VC community, as a result of the 2001 economic recession and cost cutting pressures from the parent corporations. Sheehan's interviews with CVCs identified the need for long-term goals and strategic investment focus, to avoid the instability of CVC programs. The Pitch (2003) advocated a hybrid CVC model, based on relationships with independent VCs, appropriate compensation to CVC staff, strategic involvement of corporate R&D and business development units, and fast decision making processes. This special report also profiled three unique CVC programs – Nokia's Innovent, Eastman Ventures and NEC USA, to demonstrate that there are different ways to extract strategic value from corporate venturing programs.

## Research Methodology

This research was conducted using an online survey and 1-on-1 interviews with CVC experts. Using the Internet (Survey Monkey, <http://www.surveymonkey.com>) allowed for ease of survey design and administration, and the ability to use pilot user feedback to refine the survey within a short time. The survey was conducted over four working weeks (November 5<sup>th</sup>, 2003 through December 4<sup>th</sup>, 2003). To minimize possible biases and inaccuracies in the resulting data, we employed several techniques while designing the survey, including:

- Randomized the order of choices for each survey question in the online survey
- Avoided positive or negative connotations in choices
- Used a 5-point Likert scale for questions that required the respondent to comment on the degree of importance of choices
- Provided an "Other – Please Specify" option for some questions
- Refined the survey based on feedback from pilot users
- Avoided recollection bias by seeking respondents' opinions about current issues and future trends

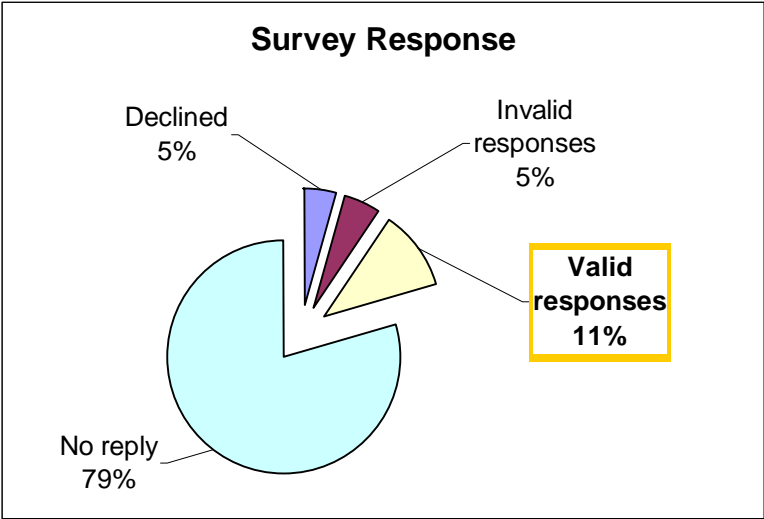
We used a variety of sources including the Galante Venture Capital Directory, the Asset Alternatives CVC directory, various industry articles and Internet searches, to compile a list of people engaged in corporate venturing or deemed as experts in this area - in academia, media and the VC industry. In addition to the survey, we also conducted interviews to understand the reasoning behind the survey responses, and validate the conclusions that we drew from the aggregate survey data.

Note that the survey methodology has its limitations, as has been pointed out in the venture capital literature, as well as cognitive psychology literature, and we recognize that more detailed interaction with the respondents would elicit better data. This includes techniques such as detailed tracking of decision-making processes, verbal analysis of recorded interviews, usage of advanced research methods such as conjoint analysis, multi-dimensional scaling, etc. However, given our time and resource constraints, we chose to use the survey and interview format to conduct this phase of our research.

### Survey Response

Email requests were sent out to a list of 450 people, of which 120 email addresses were found to be invalid. It is highly likely that most of these people have changed roles and/or employers; no attempt was made to contact them via other means. Details on the response from the 330 valid email addresses are shown below:

Survey Respondents	
Declined	15
Invalid responses	16
<b>Valid responses</b>	<b>37</b>
No reply	262
<b>Total</b>	<b>330</b>



5% of the responses were deemed invalid since they were incomplete. Of the 37 valid responses, 24 were obtained for the full version of the survey, and the remaining 13 were in response to a condensed version of the survey. We ensured that the survey questions dropped from the condensed version did not have an impact on the final analysis and conclusions.

## Survey Respondents

Adobe Ventures	Agilent Ventures	Alternative Investor
AMCC	Bellsouth Corporation	Cinergy Ventures
Comcast Interactive Capital	Eastman Ventures	Granite Ventures
Humana Ventures	IBM Venture Capital	Infineon Ventures
Kaiser Permanente Ventures	Lucent Ventures	Lycos Ventures
Motorola Ventures	Nokia Ventures	Panasonic Venture Capital
Reuters Venture Capital	SAP Ventures	Summit Energy Ventures
SR One Limited	TI Ventures	XR Ventures

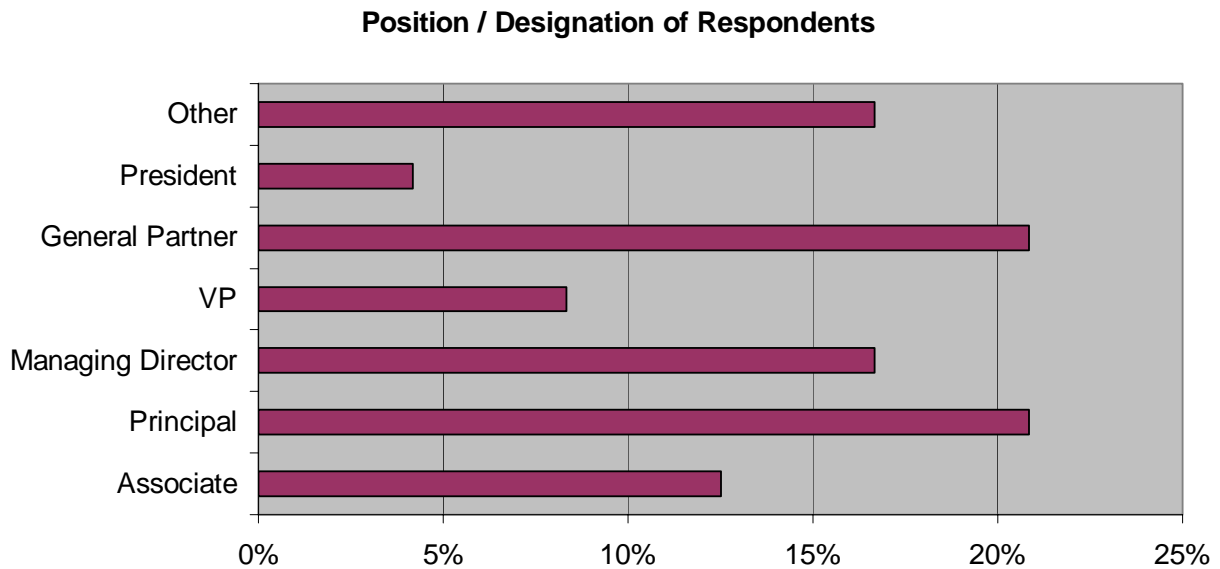
***Note: 4 other CVCs requested that their names not be disclosed.***

## Data Analysis

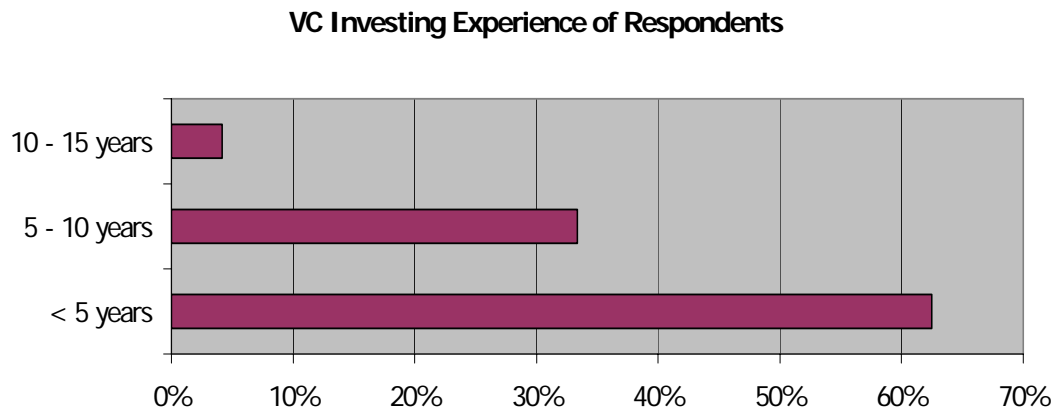
Survey data was exported into Excel and analyzed using basic statistical techniques. For survey questions with a single choice, we constructed pivot tables to analyze the percentage response for each group. These are shown as one-dimensional (horizontal) bar graphs in the succeeding pages. Some of these questions were omitted from the condensed version of the survey, but the sample size of responses to these questions was large enough to not have any impact on the accuracy of the data.

For questions seeking to determine the relative degree of importance among various choices, we first employed ANOVA to test the null hypothesis that the means of the various choices were similar, within a significance level (alpha) of 0.05. Depending on the p-value of the ANOVA test, we either declared the means to be statistically equal (if the p-value was greater than 0.05) or used the sum of the scores to rank the choices in order of importance. Note that this ranking is not always the same as the ranking based on the mean of the scores. Although we draw our conclusions based on the analysis described above, more detailed statistical analysis can be performed (e.g. factor analysis) on the response data to quantify the relative degree of importance or to deduce correlations between responses to different questions.

## Survey Respondents

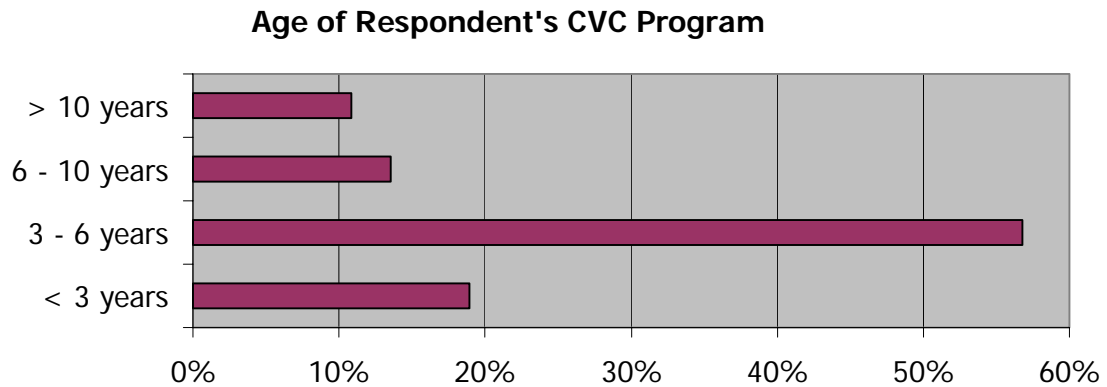


Although the survey respondents' designations ranged from Associate to VP, one must note that these designations do not necessarily provide as much insight into seniority and compensation levels of the respondents, as they would for independent VC firms.



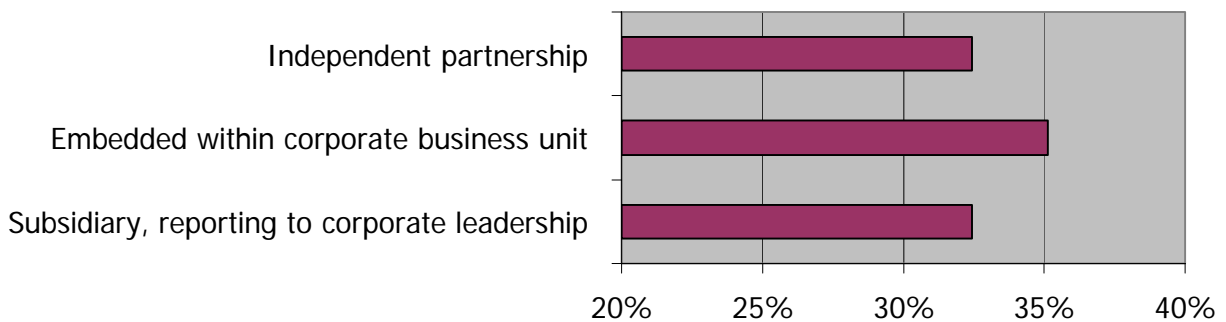
However, we did find that most of the respondents had less than 10 years of venture capital investing experience. This can be attributed to that fact that corporate venturing groups are usually staffed with corporate management talent, whose skill sets do not always include professional venture capital. Furthermore, this distribution reflects the pyramid-like hierarchy of CVC groups, with a few managing directors supported by several investment managers and analysts.

## CVC Structure



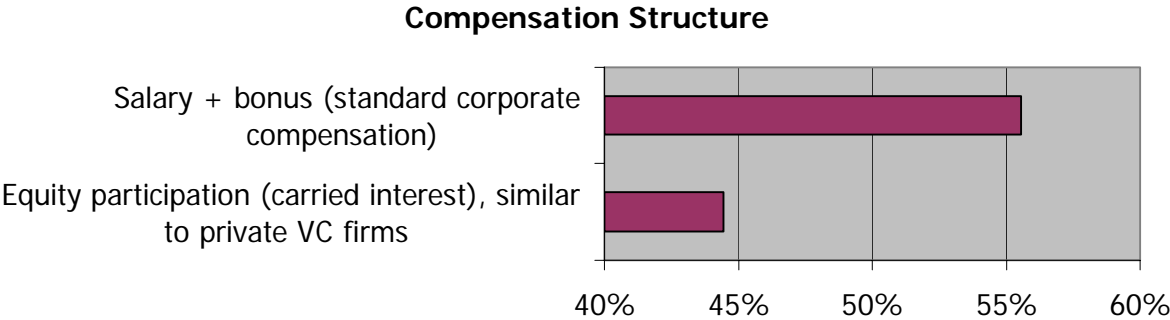
More than 70% of survey respondents belonged to CVC groups that were less than 6 years old – this effectively captures the sharp rise in corporate venturing since 1998, when overall VC funding experienced a dramatic increase, driven by the boom in the technology sector. CVC programs are prone to being cyclical (with an estimated period of 10 years) – the 1980s saw a sharp rise in corporate venturing, followed by widespread closures of such groups during the 1990-91 economic downturn. The latest VC statistics from the NVCA and other industry reports capture the sharp decline in corporate venturing since 2001 – with 2002 being the trough of this most recent CVC cycle.

## Organizational Structure



The organizational structure of CVC groups has been found to be a critical factor in determining its success. We found that respondents to this survey belonged to three distinct types of CVC groups – those structured as an independent VC partnership (with the corporate parent as the sole LP), those embedded within a corporate business unit (e.g. corporate strategy group), and those structured as a subsidiary, reporting to the executive management of the parent company. Respondents were almost evenly split between these categories, which

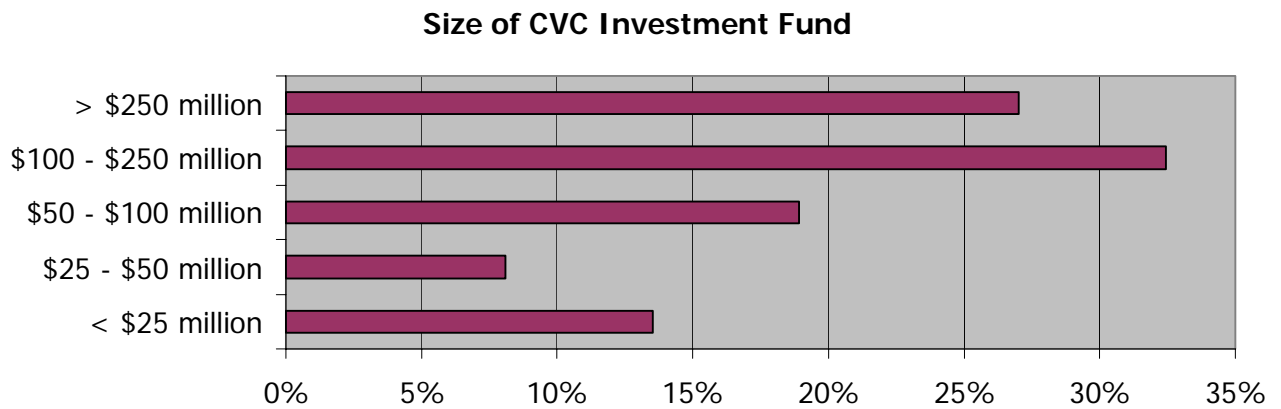
led us to conclude that the particular structure chosen for a CVC group depends on factors such as the long-term goals of this group, corporate culture, compensation practices, etc.



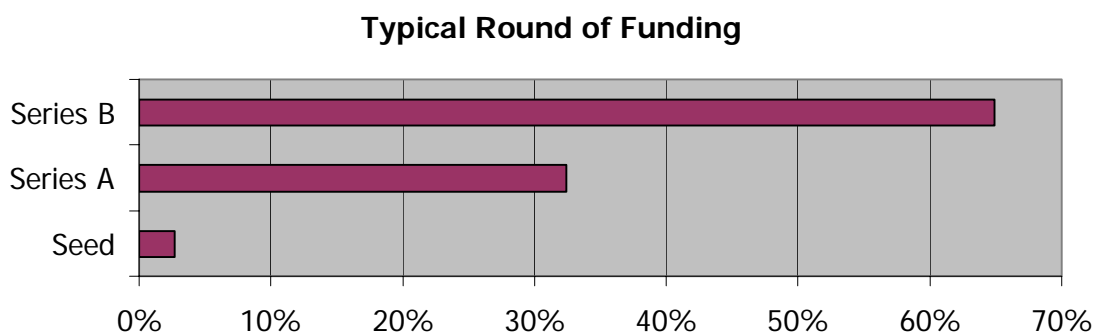
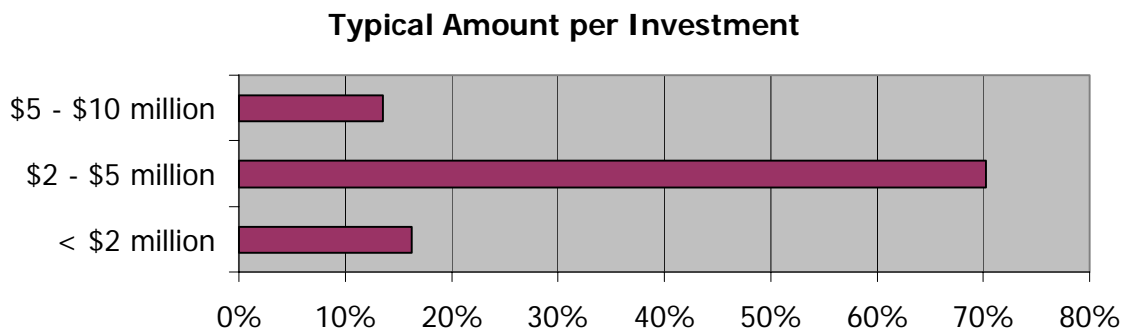
CVCs must choose between two compensation structures for their staff – either an equity-based (carried interest) compensation structure similar to professional VC firms, or a standard corporate compensation structure composed of a salary and performance-based bonuses. Although CVCs might choose some combination of these two extremes, the size of variable bonuses would tip their structure in a particular direction – this was evident in the survey responses. Statistical analysis indicated that correlation only existed between the “independent partnership” organizational structure and “carried interest” compensation.

Compensation has a large impact on the ability of CVCs to attract professional VC talent into the group, as well as retain experienced talent over a long period of time. Some CVCs shy away from equity compensation due to the possibility that during economic booms (e.g. 1999), CVC staff earnings might exceed those of the executive leadership of the corporate parent, leading to an untenable political situation. This would be accompanied by the rapid influx of talent from other business units into the CVC group, driven by the wide gap in compensation – deteriorating the situation further. Conversely, other CVCs believe that the incentives created by equity compensation are required to achieve above-par returns on CVC investments, and are the key to attracting VC talent.

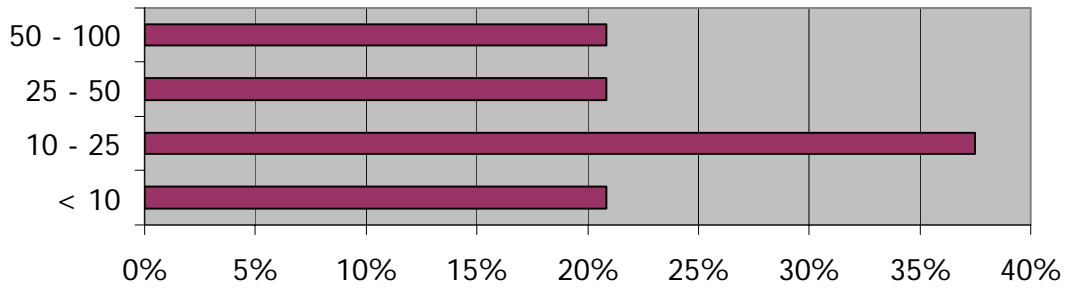
## CVC Investment Portfolio



CVC funds vary significantly in size, depending on the size of the corporate parent as well as their investment strategy. Correlations show that the larger funds (\$50 million or more) have relatively more portfolio investments, and invest in later rounds (Series B) of funding, whereas the smaller funds (< \$50 million) usually have less than 25 actively managed investments, and tend to participate in the Series A round.

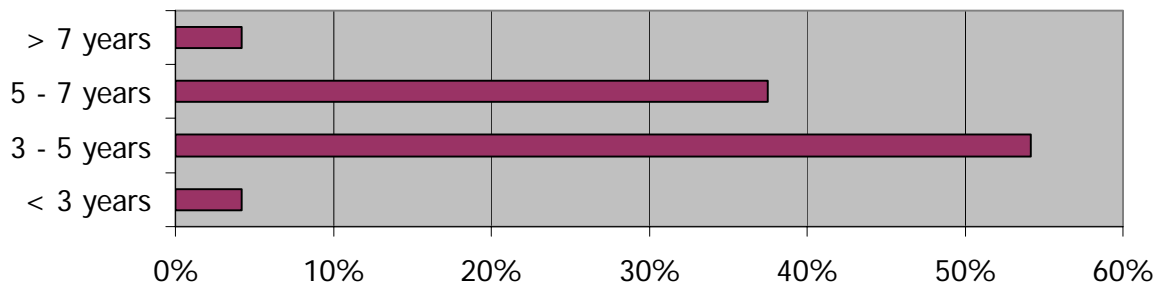


### No. of Actively Managed Investments



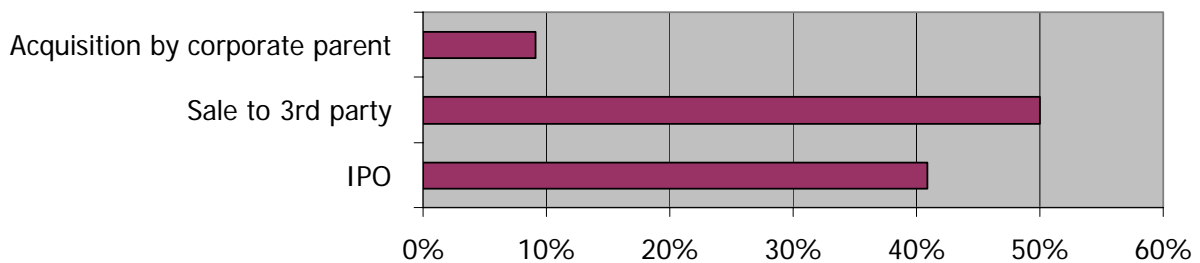
The typical investment time frame of CVCs tends to be shorter than that of professional VC firms – we attribute this to the CVCs’ focus on early stage investments and lesser degree of participation in later rounds of funding. However, the financial reliance of CVC groups on their parents for capital needs also plays a role in this time frame – corporations lack the patience and long-term perspective required for venture capital, leading to cost-cutting pressures on CVC programs.

### Typical Time Frame (Investment -> Exit)

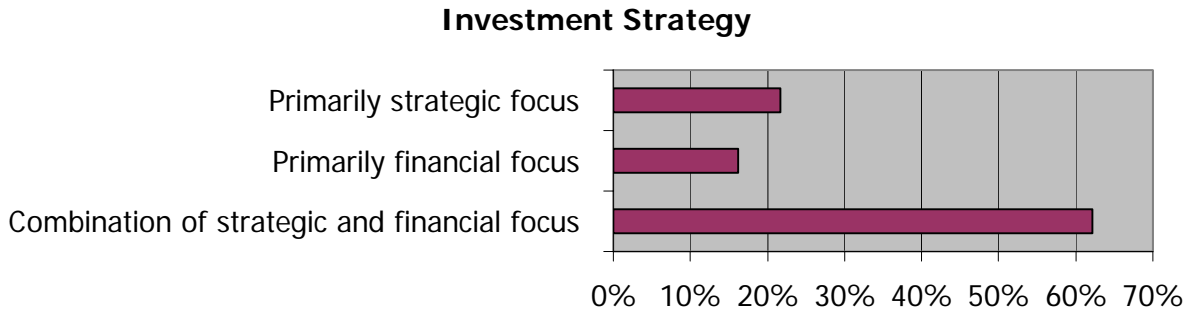


CVCs’ exit strategies are similar to professional VCs with both IPOs and acquisitions being equally favored. It is interesting to note that less than 10% of CVCs were interested in acquiring the companies that they invested in – this partly reflects the corporate parent’s history and effectiveness of M&A activity.

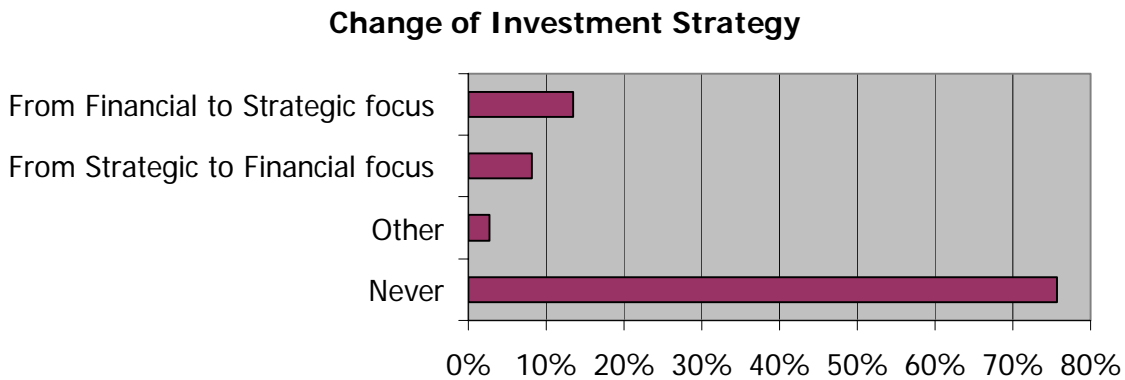
### Preferred Exit Strategy



## CVC Investment Strategy



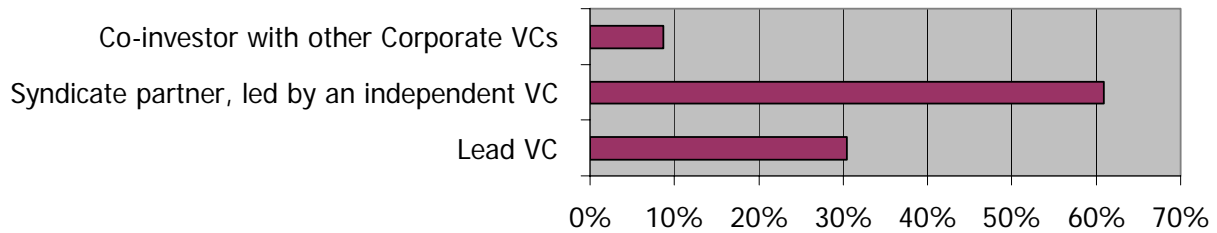
CVCs must decide upon the investment objectives of their program – ranging from a purely financial focus to a purely strategic focus. Our survey indicated that over 60% of respondents chose a combination of strategic and financial focus, and over 75% have not changed their focus over time.



### *Other: From Internal and External Ventures to Purely External Ventures*

Correlation analysis indicated that those CVCs with a purely financial focus were usually structured as independent partnerships with equity compensation – indicating consistency between investment focus and operational practices, and similarity to independent VCs. These CVCs also tended to prefer a lead role in investment rounds, as opposed to strategically focused CVCs who preferred being part of a VC syndicate, with an independent VC firm as the lead. Moreover, the typical investment time frame for financially focused CVCs was 3-5 years, indicating a relatively short-term perspective.

### Preferred Role as VC Investor



Further analysis showed that CVCs that had a purely strategic focus preferred being embedded with a corporate business unit – presumably to develop closer ties with other business units in an effort to extract strategic returns from their investments. As expected, these CVCs also preferred standard corporate compensation (salary + bonus) since their organizational structure does not permit equity compensation without political ramifications.

We also found that the oldest CVC programs (10 years or more) usually chose a combination of strategic and financial investment strategies – perhaps an indication of their maturity and the recognition that a purely strategic or purely financial focus may not be sustainable in the long term. Moreover, these programs also had larger fund sizes (\$100 million or more) – which not only helped them build a sizeable portfolio, but also might stem from the corporate parents’ recognition of the business value created by CVCs.

#### NOTE

The following section covers the survey responses to questions that sought to determine the relative degree of importance of success factors and risks for CVC programs. As noted earlier, ANOVA was used to test whether the means of different responses to each question were statistically equal. *If not, then these choices were ranked by the weighted sum of the responses (1 – Most Important, 5 – Least Important).* We preferred this over the alternative method of ranking choices by the relative number of “1” scores, followed by “2” scores and so on – since the Likert scale is highly subjective and a “1” score by one survey respondent might be equal to a “2” score by another respondent, depending on their personal biases.

## CVC Goals

CVC Goals (1 - Most Important, 5 - Least Important)	1	2	3	4	5	Sum	Avg.
Recognize new technological trends	16	15	4	1	1	67	1.81
Maintain strategic fit with corporate core competencies	12	11	11	3	0	79	2.14
Establish business relationships	4	24	5	4	0	83	2.24
Expand market for corporate parent via complementary products	10	14	6	5	2	86	2.32
Validate new market segments	9	14	9	2	3	87	2.35
Maximize ROI independent of strategic fit	10	9	11	4	3	92	2.49
Achieve inorganic revenue growth via acquisition of CVC investments	5	10	2	9	10	117	3.25
Commercialize or license IP	2	7	5	14	7	122	3.49
Balance low risk corporate projects with high risk CVC investments	2	3	11	10	9	126	3.60
Change corporate culture	2	7	8	8	11	127	3.53
Establish industry standards	1	6	10	9	10	129	3.58
Learn how to do venture capital	1	4	5	14	13	145	3.92
Assist spin-outs from corporate parent	1	5	6	9	16	145	3.92

*ANOVA Test: Means are NOT statistically equal*

When asked about the importance of goals/objectives for their CVC program, respondents chose strategic goals as the most important – including recognition of technological trends, validation of emerging market segments, and the ability to leverage alignment between CVC investments and corporate business units to extract strategic returns. Our interviews with some of these CVCs confirmed the importance of business relationships between portfolio companies and corporate parent – such as cross-licensing deals, technology transfer to the startups, source of management talent and industry contacts, access to corporate sales and marketing groups, etc. The ability of startups to generate incremental revenues for the parent, via expanding the market for complementary products, was a key goal of CVCs.

On the other end of the spectrum, survey respondents did not believe that CVC programs should be used to assist spinouts from the parent (technology commercialization), or as a means to gain VC experience. We also found that corporations do not generally prefer to acquire CVC investments – instead, they extract financial returns via an ownership stake in the portfolio companies, and strategic returns via business relationships.

## CVC Success Factors

We examined the factors that affect the success of CVCs – not from the perspective of their investment criteria, but from the structure of the CVC program itself.

Key Success Factors - CVC Organizational Structure (1 - Most Important, 5 - Least Important)	1	2	3	4	5	Sum	Avg.
High degree of autonomy	14	12	7	1	1	68	1.94
Clearly defined mission and long-term goals	12	14	8	0	1	69	1.97
Direct reporting to corporate leadership	15	9	6	2	3	74	2.11
Affiliation with corporate strategy organization	9	13	9	2	2	80	2.29

*ANOVA Test: Means are statistically equal*

The results of the ANOVA test prevent us from ranking the success factors from an organizational point of view – however, interviews indicated that all of the top three were considered critical by CVCs. The degree of autonomy was crucial for fast decision making within the CVC group, but so was strong support and direct reporting to corporate leadership. Since executive involvement could potentially slow down the investment process of CVCs, we found that CVCs managed this conflict by streamlining their interaction with corporate leadership. For example, one CVC group holds monthly investment meetings with a corporate investment board, comprised of the CTO, CFO, Director of Strategy and Director of Business Development. This board reviews and votes on investment opportunities – thus simplifying the approval process for the CVC group, while still maintaining executive involvement. Interviewees also provided examples of CVC programs that failed to capitalize on financial gains due to multiple levels of approval, and subsequent delays in investment decisions. Note also that CVCs did not consider affiliation with the corporate strategy organization to be as important as the other success factors – instead, we found that they placed a higher value on close ties with business units.

Key Success Factors - CVC Compensation & Hiring (1 - Most Important, 5 - Least Important)	1	2	3	4	5	Sum	Avg.
Using corporate management talent for CVC program	5	18	8	3	1	82	2.34
Equity compensation (carried interest) for CVC team	9	10	9	1	6	90	2.57
Std. corporate compensation (salary + bonus) for fair HR practices	1	13	13	2	6	104	2.97
Hiring professional VCs into CVC program	5	9	8	8	5	104	2.97

*ANOVA Test: Means are statistically equal*

As before, the ANOVA test showed the means of the compensation and hiring factors to be statistically equal – but there is a preference for corporate management talent for the CVC group. To investigate the reasoning behind this choice, we asked interviewees why they would chose corporate talent over professional VCs, and found that this was a result of several underlying issues, such as:

- Professional VCs lack the market and/or technology knowledge required for CVC success
- Professional VCs find it harder to absorb corporate culture and manage political issues
- Professional VCs do not have existing ties with business units
- CVC compensation structures do not offer the incentives sought by independent VCs

CVCs did acknowledge that the lack of professional VC experience might have a negative impact during the first few years of the CVC programs, but they also were confident of their ability to gain the requisite VC skill sets over time. In fact, since most CVCs prefer to invest as part of a syndicate led by an independent VC firm, they seek to contribute market/technology skills in exchange for the financial/valuation skills brought to the table by professional VCs.

<b>Key Success Factors - CVC Funding</b> (1 - Most Important, 5 - Least Important)	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Sum</b>	<b>Avg.</b>
Co-investment with independent VC firms	17	15	2	1	0	57	1.63
Funding only from corporate parent - access to cheaper capital	8	10	9	5	3	90	2.57
Co-investment with other corporate VC programs	3	6	15	7	4	108	3.09
Funding from external sources - reduced reliance on parent	6	6	7	5	11	114	3.26

*ANOVA Test: Means are NOT statistically equal*

With the ANOVA test indicating that the funding related factors differed in degree of importance, we found that the most important factor for CVCs was the ability to co-invest with independent VCs. As explained earlier, CVCs and independent VCs have different skill sets that can add value to the syndicate. Respondents also consider funding from the parent corporation as a key success factor, since it provides the CVC program with access to relatively cheaper capital (lower hurdle rate, as compared to LPs of independent VCs) – and prevents CVCs from having to spend time and efforts in fund-raising activities. However, CVC literature has repeatedly pointed out that the cyclical nature of CVC programs might be an effect of dependence of CVCs on their corporate parents for their capital needs. CVCs did not exhibit interest in obtaining funding from other sources, although some industry articles (Asset Alternatives, Corporate Venturing Report) did report on such activities in 2002.

<b>Key Success Factors - Leveraging Corporate Resources</b> (1 - Most Important, 5 - Least Important)	1	2	3	4	5	Sum	Avg.
Management (Executive contacts, Source of management talent)	12	12	4	4	3	79	2.26
R&D (R&D staff, Intellectual Property, Prototyping labs, Due diligence)	11	11	5	6	2	82	2.34
Marketing (Brand, Pricing models, Channels, Sales force, Suppliers)	8	13	9	3	2	83	2.37
Manufacturing (Test labs, Fabs, Excess capacity)	1	8	11	9	6	116	3.31

*ANOVA Test: Means are NOT statistically equal*

Although the ANOVA test showed that CVCs put equal emphasis on a variety of corporate resources, we found that strategically focused CVCs placed a greater emphasis on the corporate R&D resources – and the value they brought during the due diligence process for hi-tech startups. Access to marketing groups and distribution channels was also identified as a key advantage for CVCs, since their portfolio companies were typically weakest in this area, and could benefit greatly from the brand recognition and channel presence of the corporate parent.

### **CVC Risks**

CVC programs face several risks, beyond those faced by independent VCs, on account of their unique organizational and funding structure. We explored this further to determine which risks had the most impact on CVC performance and survival, and how they could be mitigated during the design as well as the operation of CVC programs.

<b>Key Risks - Organizational</b> (1 - Greatest Risk, 5 - Least Risk)	1	2	3	4	5	Sum	Avg.
Lack of long-term perspective	16	8	4	3	3	71	2.09
Lack of direct reporting / close ties with corporate leadership	11	10	7	2	4	80	2.35
Unclear objectives and goals for CVC program	11	11	4	4	4	81	2.38
Slower decision making process (bureaucratic hurdles)	10	11	6	3	4	82	2.41
Low degree of autonomy for CVC program	8	13	5	6	2	83	2.44
Ill defined metrics, especially for strategic focus	7	13	8	3	3	84	2.47
Low operational and market flexibility	3	10	9	9	3	101	2.97

*ANOVA Test: Means are statistically equal*

As seen from the sum of individual scores, survey respondents did not offer us a clear ranking of organizational risks, except identifying the lack of a long-term perspective as perhaps the most important one, and degree of investment flexibility as the least important one. Our discussions with some of these experts highlighted the significant impact of reporting structure,

with respect to the degree of support that CVC programs received from corporate leadership. CVCs who have managed to survive over longer periods typically have strong support from the CEO and Board of Directors of the parent, and tend to involve the uppermost levels of management in their decision-making processes. Conversely, CVCs that report into finance (Treasurer/CFO) or are embedded within a business units, and lack C-level advocates, tend to face financial crunches during economic downturns, or experience high turnover in their staff due to lack of commitment to the program. Survey respondents agreed that strategically focused CVC programs face difficulties in measuring returns – but several of them provided examples of metrics that could be used to quantify strategic benefits. These include both top-line and bottom-line metrics, such as:

- Incremental revenue for the parent corporation driven by sale of complementary products by portfolio companies
- Revenue from IP licensing deals
- Cost savings (due to outsourced R&D costs, NRE costs)
- Cost savings (during license negotiations with portfolio companies, via Most Favored Nation pricing)
- Market research cost savings (validation of new market segments via portfolio companies)

<b>Key Risks - Conflict of Interest</b> (1 - Greatest Risk, 5 - Least Risk)	1	2	3	4	5	Sum	Avg.
Conflict with entrepreneurs - Degree of control on strategies	2	10	14	6	2	98	2.88
Investments in rival, internal ventures	4	10	7	7	6	103	3.03
Successful startups that cannibalize corporate technology/products	3	2	15	10	4	112	3.29
Conflict with independent VCs – Exit strategies, future rounds	5	3	7	13	6	114	3.35
Corporate parent on both sides of technology licensing deals	2	6	9	10	7	116	3.41

*ANOVA Test: Means are statistically equal*

CVCs have been criticized for exerting too much control on the technology and market strategies of startups – with an aim to benefit their business units, despite a negative impact on returns to other investors. Respondents agreed with this to some degree, noting that this was particularly true for CVCs that sought to extract strategic returns via MFN deals and incremental revenue. With the corporate parent having a vested interest in the outcome, CVCs must restrain themselves from exerting control over specific product development and marketing decisions

made by their portfolio companies, while continuing to offer value via due diligence, access to corporate R&D staff, access to strategic marketing data, etc.

<b>Key Risks - Compensation &amp; Hiring</b> (1 - Greatest Risk, 5 - Least Risk)	1	2	3	4	5	Sum	Avg.
Lack of VC-like incentives to CVC team --> High turnover among CVCs	10	9	4	6	5	89	2.62
Uncertain career path for CVC team, due to instability of CVC programs	5	11	11	2	5	93	2.74
VC-like incentives to CVC team --> Unfair to non-CVCs managers	1	9	5	13	6	116	3.41

*ANOVA Test: Means are NOT statistically equal*

Given the sensitivity of compensation differentials in a corporation, the CVC incentive structure was found to have a large impact on the long-term success of any CVC program. Some respondents explained the need for a delicate balance between equity-based compensation and a corporate salary – via the use of variable (spot) bonuses. However, other interviewees defended the lack of equity participation by pointing out that CVC staff is shielded from the downside risks of equity-based compensation, unlike independent VCs. Moreover, since CVC success is based on the efforts of a variety of resources, including corporate R&D resources, strategy groups, and business development groups, it is difficult to reward only the CVC staff for investment success. This is in contrast to independent VCs where it's relatively easier to link performance to individual effort.

<b>Key Risks - Economic</b> (1 - Greatest Risk, 5 - Least Risk)	1	2	3	4	5	Sum	Avg.
Short-term perspective, incentives for business unit managers	10	13	5	5	1	76	2.24
Cyclicality of CVC investments with stock markets / economy	9	13	5	7	0	78	2.29
Recession --> Focus on profitability, and cost control mentality	7	12	8	6	1	84	2.47

*ANOVA Test: Means are statistically equal*

The economic risks listed above were found to be of equal concern to respondents – however, the cost control mentality of corporations during economic downturn was the largest risk to CVC funding needs. With the relatively high turnover among corporate executives, and the volatility of corporate profits, CVC programs tend to face highly uncertain funding environments – such as the 1998-2000 VC boom and the 2001-2002 VC bust. This situation worsens for those CVCs who receive capital based on annual budgeting cycles, instead of lump-sum allocations for a longer time period.

## CVC Trends

We asked experts to comment on the trends in corporate venturing, in an attempt to determine the future direction of CVCs and to support our recommendations for companies that are interested in setting up a CVC program. With regards to investment focus, survey respondents overwhelmingly chose strategic focus over a financial one – but this seems somewhat in contrast to the majority of existing CVCs who tend to have a combination of both. However, this does indicate CVCs' recognition of the importance of strategic focus in their investments, since that's the differentiator between CVCs and professional VCs. An argument against a purely financial focus has been that since corporations' fiduciary duty is towards their shareholders, they cannot create value via a purely financial CVC focus, since shareholders could potentially construct a similar risk/return portfolio themselves if they so desired. Of course, one can argue that not all shareholders have access to private equity investments – but in general, CVCs' main contribution is the strategic value that they can add to their investments, and the strategic returns that they can extract, via their business relationships.

<b>CVC Trends</b> (1 - Most Likely, 5 - Least Likely)	1	2	3	4	5	Sum	Avg.
CVC programs will prefer a purely strategic focus	4	14	9	2	4	87	2.64
Accounting issues for CVCs – Investment write-offs, equity valuation, etc.	6	11	6	7	3	89	2.70
CVCs will prefer smaller fund size, with non-material impact on corporate	1	13	12	6	1	92	2.79
CVC org. structure -> Independent subsidiary, with carried interest comp.	1	9	10	10	2	99	3.09
CVCs will mature, become less volatile/dependent on corporate financial situation	1	10	11	9	2	100	3.03
CVCs will raise capital from external sources, to reduce dependence on corporate	0	11	10	4	7	103	3.22
Corporations will move to VC firms (eg Advent) that focus on corporate LPs	0	7	17	5	5	110	3.24
CVC programs will hire external VCs	1	5	13	10	4	110	3.33
CVC will grow as a % of total VC investment	1	4	12	12	4	113	3.42
CVC programs will prefer a purely financial focus	0	1	9	11	12	133	4.03

*ANOVA Test: Means are NOT statistically equal*

With the sharp drop in startup valuations since 2001, all VCs have had to write-off losses on their investment portfolios. Since CVC parent corporations must provide quarterly financial statements per SEC regulations, CVCs have had to deal with such accounting issues to a greater extent. Some of our interviewees indicated that they were usually quite conservative in their valuations, while dealing with these accounting issues, due to their obligations to shareholders of the corporation.

The independent partnership structure seems to be gaining favor with some CVCs, perhaps in response to the conflicts inherent in being too closely tied to the parent. As noted earlier, independent partnerships can offer equity compensation and hire professional VCs without having to deal with political and HR issues. Since a purely financial focus does not seem to be favored by most experts, these independent partnerships would have to aim for a combination of strategic and financial returns.

Respondents did not expect CVC to share a greater piece of the total VC pie, reflecting the pessimism among them since the 2001 fall in CVC funding. A trend that is consistent with the strategic focus is the lack of interest in hiring professional VCs – as discussed earlier, the incentives offered by CVCs do not attract professional VCs, who in turn lack the skill sets required by CVCs.

From a funding perspective, respondents did not favor the raising of capital from outside sources – citing the time and effort demanded by such activities, as well as the loss of some control on investment strategies to other LPs. Similarly, there wasn't much support for the notion of corporations abandoning CVC programs in favor of joining other corporations as LPs in sector (niche) funds. One of the reasons cited for this was the difficulty in maintaining strategic fit with a large number of corporate LPs participating in a single fund.

## Conclusion & Recommendations

Although we uncovered several best practices for CVCs throughout this research effort – via literature review, surveys and interviews – the most important takeaway is the need for consistency between all aspects of a corporate venturing program. Corporations must make tradeoffs on various issues while designing a CVC program, such as organizational structure, compensation, investment strategy, degree of interaction with business units, etc. However, unless these decisions are consistent with each other, CVCs will face several obstacles to success and long-term survival.

We recommend corporations to first define the goals and objectives of their corporate venturing activities, along with an investment focus. The next step should include a detailed analysis of corporate culture, history of entrepreneurial activity, and level of support for CVC activities from the executive leadership. This should then lead to a choice of an organizational structure, a closely aligned compensation structure, and clear definition of performance metrics for the CVC program. Whether the investment focus is financial, strategic or a combination of the two, corporations must define what constitutes “returns” and set up procedures to measure these returns. CVCs also must decide upon their hiring practices – particularly whether they intend to hire professional VCs into the CVC group. Depending on their investment strategy, CVCs must choose the corporate resource they intend to leverage – for strategically focused programs, the R&D business units play a key role in the due diligence process. On the other hand, for purely financially focused CVCs, access to cheaper capital and management contacts would be more beneficial.

For their funding needs, independent partnerships could pursue other LPs whereas strategically focused CVCs must maintain the parent as the sole LP to ensure strategic fit between the parent and CVC investments. CVCs with a combined focus could co-invest with other corporate LPs into a sector fund, managed by a professional VC firm. However, as discussed earlier, there can be conflicts when a fund that has several LPs cannot satisfy all the strategic requirements of any particular LP. Such funds also limit the degree of involvement of LPs in the actual investment decisions – rather, the professional VCs that manage such fund commit only to investing capital in a particular sector (e.g. life sciences, semiconductor equipment, etc.), but retain complete control over the portfolio.

The table below summarizes the options available to corporations – to set up a CVC program from the ground up, or benchmark their existing CVC program.

<b>Goals/Objectives</b>	Participate in high risk/high return private equity market	Gain insight into new technologies and market segments, set standards	Outsource R&D, profit from high growth markets, hedge against disruptive technologies
<b>Investment focus</b>	Purely financial	Purely strategic	Combination
<b>Support from corporate executive leadership</b>	Strong support, based on financial performance metrics	Moderate support, CVC program funding dependent on corporate budgets	Strong support, CVC viewed as strategically important with long-term funding
<b>Organizational structure</b>	Independent partnership	Embedded with a business unit	Subsidiary, with direct report to corporate leadership
<b>Compensation structure</b>	Equity participation	Salary + Bonus	Salary + Variable Bonus (Tied to equity returns)
<b>Performance metrics</b>	Financial: ROI, % of funds invested, time from investment to exit	Strategic: Cost savings in R&D, Exposure of R&D groups to new technologies, incremental revenues, market validation	Strategic & Financial
<b>Corporate resources to be leveraged?</b>	Cheaper capital	R&D resources	Marketing resources, R&D resources, Management talent
<b>Hire professional VCs</b>	Yes	No	Maybe, to complement corporate talent
<b>External Funding</b>	Yes	No	Possibly co-invest with corporate LPs in sector funds

## Future Work

There are several directions in which this research can be extended, such as:

- Advanced statistical analysis of survey responses to uncover correlations between investment strategies, compensation structures, etc.
- Further interviews with survey respondents – particularly to clarify on the relative importance of success factors and risks where the results of the ANOVA test show means to be statistically equal.
- Survey and/or interviews with independent VCs to obtain their perspective on CVCs and compare/contrast their opinions on CVC performance, investment focus, etc.
- Interact with a particular CVC to investigate their operational practices in detail.
- Consult with a particular corporation to design or benchmark its CVC program, building upon the best practices uncovered by this research work.
- Conduct similar research for international CVCs – particularly those in Europe and Japan

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## Useful Links

- Asset Alternatives Inc., <http://www.assetalternatives.com>
- Babson Entrepreneurial Review, <http://www3.babson.edu/ESHIP/publications/BER>
- California Management Review, <http://www.haas.berkeley.edu/News/cmr>
- Harvard Business Review, <http://harvardbusinessonline.hbsp.harvard.edu>
- Infon, <http://www.infon.com>
- Journal of Business Venturing, <http://www.elsevier.com>
- National Bureau of Economic Research, <http://www.nber.org>
- National Venture Capital Association, <http://www.nvca.org>
- PriceWaterhouseCoopers, MoneyTree, <http://www.pwcmoneytree.com/moneytree/index.jsp>
- Private Equity Compensation Survey, <http://www.vccomp.com>
- The Pitch, <http://www.the-pitch.com>
- Thomson Venture Economics, <http://www.ventureeconomics.com>
- Venture Capital Journal, <http://www.venturecapitaljournal.net>
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