

Foreign Indirect Investment and the Venture Capital Industry:
Foreign limited Partner Impact on Swedish Venture Capital Firms

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**FOREIGN INDIRECT INVESTMENT
IN THE VENTURE CAPITAL INDUSTRY**

**A Study of Foreign Limited Partners' Impact
on Venture Capital Firms in Sweden**

Ciara Sutton



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To Kristofer and Jessika

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CHAPTER 1

INTERNATIONAL CAPITAL FLOWS IN THE VENTURE CAPITAL INDUSTRY

The international movement of capital of a large scale in the form of private venture capital is a relatively recent phenomenon, despite the fact that international investment (portfolio and foreign direct investment) has been important throughout the industrial era. Such flows have constituted a major, and perhaps defining, part of economic development over the past two decades. Given the central importance of capital flows, this study seeks to add to our understanding by focusing on the influence of international capital flows occurring in a form that has received little attention in theories of economics and international business.

Reviewing the mainstream literature, we find that the movement of capital across borders has traditionally been approached through the view of arm's length portfolio investment, or alternatively, the internalised investment of a multinational organisation (Foreign Direct Investment, FDI). One of the central distinctions between these two approaches is the polar implications for the level of control and influence that the investing party possesses over the investee.

As the international financial markets are becoming increasingly interlinked, a specific phenomena most readily identified in the venture capital industry has been noted. This phenomenon is the movement of capital across borders through the pooling of funds to be further invested by venture capital firms in local ventures. This is a form of cross border capital flow that has been recognised by industry experts as a primarily non-equity capital flow that is linked to control and is, therefore, not captured by the extant frameworks within the field of international business.

During the early stages of industry development, the venture capital industry was classified as an example of a natural domestic industry. This natural domestic industry would include a number of locally active

venture capital firms, raising money from the domestic capital markets, and investing in a portfolio of firms in the nearby geographical regions. More recently, elements of increasing international focus in relation to the venture capital industry have been noted, including the transplanting of venture capital firm subsidiaries into new markets, cross border syndication deals between venture capital firms, and international investment strategies that extend the venture capitalists' portfolios to include firms that are geographically distant to the venture capital firm (Haemmig, 2003; Mäkelä, 2004; Wright, Pruthi and Lockett, 2005).

One additional element of international activity affecting the industry is the development and integration of the financial markets, specifically apparent as the growth of the venture capital industry has induced greater cross border fundraising activities by venture capital firms. The relatively recent phenomena of cross border capital flows occurring through venture capital fundraising has been flagged by the leading industry experts as one of the key predicted trends in a flourishing industry, particularly in areas outside the two mature markets of the United States and the United Kingdom. The expansion of this form of capital movement opens both normative questions regarding the impact of these capital flows, as well as theoretical questions on whether the existing literature strands sufficiently explain the nature of this flow. As a portfolio investment, the predicted impact of international venture funds would be restricted to welfare effects - both benefits and costs - and the theoretical understanding of this form of international capital movement would be covered by the long stream of economic theoretical work stemming from Ohlin's (1933) ideas on interest rate differentials between countries. Clearly, similar to a portfolio investment the pooling of investment funds is structured as a purely financial transaction even if there are some differences from the early classical definition of portfolio investments that centred on the acquisition of securities (Dunning, 1970). Despite the observation that the transaction is, in essence, purely financial, there are reasons to believe that the nature of these capital flows may lead to further effects, specifically with respect to the strategic and managerial implications of requirements sought by the international capital owners. As of yet, however, there is limited empirical evidence that the international fund raising of venture capitalists is a capital flow that differs in any way from a portfolio investment. Also unclear is what mechanisms may be

that lead to a divergence from a standard portfolio flow. Should there be differences in this type of capital flow from a standard portfolio flow; the nature of the capital flow would also need to be determined. By focusing on the movement of capital across borders through the venture capital financing system, the type, reach, and impact of this specific form of capital movement can be identified.

While the theoretical focus of this thesis is capital flows (more specifically, the cross border capital flow observed in the venture capital industry), the context of venture capital does not allow for this to be studied without grounding the research firmly within the specifics of the industry. Fairly uniquely, the venture capital industry has attracted significant attention as financial phenomena by both researchers and policy makers keen to understand the determinants and dynamics of this institution.

The classic role of the venture capital firm is to act as an intermediary between the fund providers (limited partners) and entrepreneurs and young high growth firms in need of risk capital (the portfolio firms) (Chan et al., 1990).

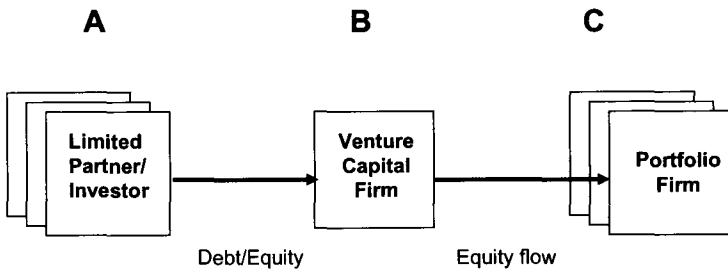


Figure 1.1: The ABC of venture capital

The venture capitalist's local knowledge, specialised skills, and network connections are expected to increase their ability to balance information asymmetry and adverse selection problems in the firms that they invest in (Admati and Pfleiderer, 1994). The dual agency aspect of the venture capitalists' position has been noted in previous research; however, the

focus has been overwhelmingly on the interaction between the venture capital firm and the portfolio firms (B to C interaction, see Figure 1.1). While there is a growing awareness that there are different types of money flowing into the venture capital funds (Variations within A, see Figure 1.1), there has been a long standing assumption that this is a neutral element in the functioning of the venture capital industry.

In practical terms, the venture capitalist pools the capital raised into a closed-end fund. Those who have invested in the fund, therefore, relinquish control over the allocation of their investment. Although the legal separation between limited and general partner¹ is clear, researchers are becoming aware that there is a correlation between the type of money raised and the activities of venture capital firms, which indicates some level of control and impact on strategy. For example, there is evidence that the venture capital firm will behave differently depending on whether the limited investor is a bank, an investment company or a private individual (Mayer, Schoors and Yafeh, 2005), or more generally if the fund is structured as an 'independent fund' or is a 'captive' (Osnabrugge and Robinson, 2001). In addition, research across countries has suggested interesting residual differences that seem to be related to country of origin. In the Mayer et al. (2005) study the effect of different investor type was not consistent between the empirical settings of four distinct national locations. However, the cross-border implications were not pursued by the authors, as each national setting was approached independently without further exploring the implications.

Jointly, the increasing cross border activities of the venture capital industry and emerging evidence of differentiated effects of types of capital raised suggests new and previously unexplored developments in the venture capital industry, as well as in academic research. To get a first grasp of these effects, the following sections take a closer look at the basic function of venture capital and venture capital firms, the historical roots of the venture capital industry (with a particular focus on the Swedish

¹ The **general partner** (the management firm) has unlimited liability and **limited partners** (the investors) have limited liability and are not involved with the day-to-day operations. The general partner receives a management fee and a percentage of the profits. The limited partners receive income, capital gains, and tax benefits. The general partner (management firm) manages the partnership using policy laid down in a Partnership Agreement. Source: European venture capital association (EVCA)

venture capital industry), and the internationalisation of capital flows.

Venture Capital

A generally accepted definition of venture capital is 'independent, professionally managed, dedicated pools of capital that focus on equity or equity linked investments in privately held, high growth companies' (Gompers and Lerner, 2001 p. 146).

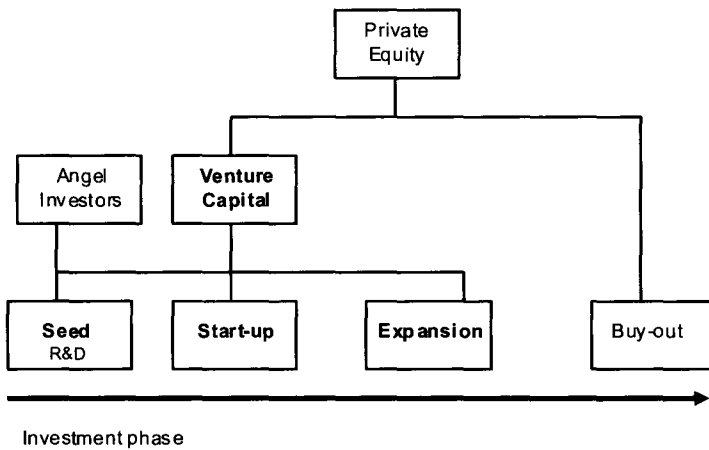


Figure 1.2: Venture Capital on the Private Equity Market

Venture capital, as it is used in this study and generally in the United States (Jeng and Well, 2000) is a subcategory of private equity and comprises three types of investment – seed, start-up, and expansion – and excludes buyouts. This adheres to the idea of 'classic venture capital firms' (Bygrave and Timmons, 1992). The alternative definition, as it is generally applied in Europe, includes the private equity firms that provide buyout and restructuring capital to large and established firms.

The definition of venture capital used in the current work excludes informal or independent venture capital, also known as 'angel' capital. The term angel generally refers to high net worth individuals who invest in and who support start-up companies in their early stages of growth

(Lange et al., 2003). In the United States, the term is more formalised, referring to specific SEC 'accredited investors' (Levin, 1994). Angel investors typically operate quite similarly to the more formal venture capitalists by providing finance, guidance and assistance to high potential ventures in the initial growth phase. The difference is that the angel investors typically operate with their own personal funds - either earned or inherited - and do not manage third party capital nor are supported by any corporate structure.

The venture capital industry is a service industry (Cetindamar and Jacobsson, 2003) that generally acts as financial intermediaries between investors and entrepreneurs (Smith and Smith, 2000), and following the accumulation of funds, their main actions are: (1) to select firms to fund; (2) structure the relationship and monitor the funded firms; (3) provide value-added activities to the firm; and (4) exit the investment. The venture capital firms that are active in the industry operate differently, and the differences that have been repeatedly noted can be categorised into five main areas (Cetindamar, 2003): (1) The organisational form (for example limited partnerships or company structures); (2) the degree of involvement during the post investment period; (3) the sources of funds (private, companies, banks or pension funds); (4) specialisation at different stages of firm development (seed, start-up, expansion or buy-out); and, (5) specialisation in industry or technology fields.

The current thesis captures all of these variants. However, additional attention is drawn to the potential differences associated with the geographical sources of funds.

Historical Roots of Venture Capital

Internationally, the modern venture capital firm is generally traced back to 1946 and the establishment of American Research and Development (ARD) as an effort to commercialise innovative technologies developed during the Second World War². ARD embodied the approach that is still associated with venture capital: it used only equity, invested for the longer term, and was prepared to live with failures and negative cash flows in the short term (Bygrave & Timmons, 1992).

The success of ARD is said to have spawned further investments by others - including banks and insurance companies - in similarly profiled companies, start-ups, and high-technology firms. This investment model also established on the west coast of the United States in the form of Small Business Investment companies and partnerships in California in the 1950s and 1960s (Saxenian, 1994). ARD is also linked to the establishment of the European venture capital industry. Through the French connections of one of the founders, the European Enterprises Development Company S.A. (EED) was set up with offices in Luxembourg and Paris. The further spread of venture capital to Europe is primarily attributed to experienced venture capital managers with experience in the United States who drew heavily on US investment capital (Manigart, 1994).

In Sweden, the formal venture capital industry began in 1973³, with the first fund established in collaboration between the government and the private sector. Subsequently, the government supported regional development funds, and regional investment companies were developed to provide managerial advice and capital for small businesses, based directly on the Small Business Investment Company (SBIC) program in the United States (Baygan, 2003). During the early 1980s, a second wave of venture capital activity began, attributed to the strong performance of the main stock market and the formation of the Over-The-Counter (OCT) listing in 1982. The Swedish Venture Capital Association (SVCA) was formed in 1985; however, the number of venture capital firms diminished

² The mediating problem that is addressed by venture capital firms cannot be considered new since entrepreneurs with ideas, but without the funds to finance themselves have historically sought a myriad of alternatives based on some combination of loans or other debt financing: the model of venture capital financing addressed in this thesis, however, can be considered a relatively recent phenomenon.

³ Some would suggest that venture capital in Sweden has a history dating back to the closed-end funds of Investor AB in the early 1900s.

during the following period as a result of a sharp downturn in the economy and the stock market decline. The third wave of venture capital firms began in the mid 1990s, and continued to increase until the total number of venture capital firms peaked in 2000. This was a time of significantly rapid growth in the Swedish venture capital industry, even in comparison to the rest of Europe where growth of the industry was widespread and substantial (Cetindamar and Jacobsson, 2003). The global market downturn in 2000 resulted in consolidation through fund mergers and closures, and industry insiders currently predict that the consolidation of the industry will become a more or less permanent feature in the industry.

This cyclical character of the Swedish venture capital industry is similar to that noted in other countries in which the venture capital industry is present, and the life cycle approach is a well accepted view of the industry (Cetindamar, 2003).

In 2006, at the time the data for the present study was collected, the Swedish venture capital association had 110 registered members, of which 25 were categorised as pure buy-out firms by the Swedish Venture Capital Association (SVCA). The 85 venture capital firms had 830 registered portfolio firms (Table 1.1).

Table 1.1: Swedish Venture Capital Industry 2006

	Funds Under Management (Billion SEK)	Invested Capital (Billion SEK)	Number of Firms	Number of Portfolio Firms
Buy-Out	239	132	25	180
Venture Capital	81	45	85	830
Total	320	177	110	1010

Source: SVCA quarterly reports 2006 www.svca.se

As will be further discussed in the following chapters, the venture capital firms mainly represent purely Swedish organisations; however international influences were present throughout the history of the industry. In 2006, foreign subsidiaries of internationally active firms accounted for

approximately 8-10%⁴ of the total number of venture capital firms in Sweden.

International Developments in the Venture Capital Industry

In a timely editorial article of international business, the argument was made that one of the future areas for international business research is to identify trends toward, and away from, globalisation (Buckley, 2002). This call has been quickly linked to venture capital where the emerging internationalisation of the industry and the firms within it is argued to be an important institutional development with significant implications for the firms that are as yet little understood (Wright et al., 2005).

The venture capital industry is in a period of increasing international interdependence among venture capitalists through strategic alliances, direct investments in foreign venture capital firms and the development of multi-country networks (Deloitte, 2006). In Deloitte's 2006 comprehensive 'global venture capital survey'⁵, the increasingly international focus of limited partners has also been noted. Predictions by the survey respondents are toward a continuation of this trend, and all of the surveyed territories outside the US expected an increase in interest from US investors over the following five years.

Reflecting general developments in the industry, inflows of foreign capital into the Swedish venture capital industry increased in proportion to the growth of the industry itself. In 1999, 50 percent of the Swedish funds were sourced from foreign investors, predominantly European and particularly from Finland, Germany and the United Kingdom. Non-European investors, primarily from the United States then entered rapidly, accounting for 25 percent of new funds raised in 2000 (the corresponding figure in 1999 was less than one percent: Baygan, 2003). The proportion of non-European funds subsequently declined to 19 percent in 2001, yet the impact of this ongoing inflow of funding poses an interesting empirical question. While Sweden is one of the largest European re-

⁴ Calculated on the SVCA member listing using the Zephyr database and venture capital firm web pages.

⁵ Deloitte Touche Tohmatsu sponsors a comprehensive annual report on venture capital trends. The 2006 survey had a total of 505 general partner respondents from the Americas, Europe, Middle East, Africa and the Asia Pacific.

recipients of US capital, the quantity of US investment capital is still increasing, and new investment locations are currently being sought. Should this US investment capital have more than a pure accelerator effect, this is of increasing relevance to a growing number of national venture capital industries.

In general, foreign money comes in at a later stage, particularly when it comes from the United States where the capital available for private equity is substantial. Therefore, there is a heavier concentration of foreign funds in later stage private equity firms in Europe in general. However, there is a degree of overlap: the foreign funds are not only coming in at a later stage - into funds that have a pure buy-out directed strategy; the foreign investors are also investing in funds that are managed by venture firms operating in multiple stages of venture development.

Data from the Swedish venture capital association indicates that the majority of the foreign funds - particularly those from the United States - are sourced by the buy-out actors, yet there are small amounts also being raised by the venture capital actors. While the actual value of the foreign and US sourced funds are small in comparison to the locally raised funds by venture actors (see Table 1.2⁶), there is an indication of the increasing globalisation of the venture capital industry that is a growing focus of venture capital and entrepreneurship researchers (Haemmig, 2004). Noting this early trend, it remains a largely ignored question: if, and in what ways, the increasing international capital flows have an impact on the development of the local industry.

⁶ The SVCA split between Buyout and Venture actors is based on the firm's primary strategic orientation. In the current study, the split is based on the actors own definition of their activities and, therefore, a greater proportion of foreign funds are flowing to the venture actors.

Table 1.2: Fund Sources 2006

Buy-Out		Venture	
Nordic Region	30%	Sweden	59%
Europe - Other	31%	Other Nordic	22%
USA	28%	Other Europe	19%
Other Regions	11%	Other Regions (Inc. USA)	0.2%

Source: SVCA Quarterly Reports 2006 (www.svca.se)

If financial flows matter in the venture capital industry, as suggested by Mayer et al. (2005) and Osnabrugge and Robinson, (2001), then there are reasons to believe that the amount of foreign money - and where it is coming from - will impact investment strategies on a local level. Ultimately, this influence will have implications for both innovation growth patterns, and possibly even market structures. A specific role attributed to venture capitalists is the role of 'technological gatekeepers' and important intermediaries in national innovation outcomes: a view of the industry posited already in the 1980s by the work of Florida and Kenney (1988a; 1988b). The authors identified what they call an integrative model of innovation that is centred on the venture capital industry. In this perspective, the venture capitalists are critically positioned to spot opportunities in the process of breakthrough technology. Through their interventions to create new companies and support technology bets, they set the direction for technological change. Examples include venture capital-induced development in the fields of semi-conductors, personal computers, and biotechnology. Placing their claims within neo-Schumpeterian theory, they view the venture capital industry as moving the United States across new technological frontiers and setting in motion the *gales of creative destruction*, which establish the context for economic restructuring (Florida and Kenny, 1988, p. 129). This view was supported more generally by Gompers and Lerner (2001), stating that: 'ultimately the goal must be to see the role that venture capital plays in an economy's

overall process of innovation' (p. 165).

The few researchers who have initiated work on the impact of the source of funds on the venture capitalist's behaviour have drawn attention to the existing gap in our understanding of the full implications of fund sources. For example, contemplating the differences between captive and independent venture capital firms, Osnabrugge and Robinson (2001, p. 25) noted:

In observing the growing presence of venture capital firms in our financial landscape, most commentators concentrate on the structural questions of size of deals, sector investing focus, and the issues of risk and reward. Little, if any, consideration is given to the source of the venture capitalists own funding, and how this may affect the structure, investing behaviour and informational strategies of the venture capital firm itself.

Existing literature on venture capital shows a gap in our understanding of how international capital flows are controlled, and in what ways this may impact the local context.

Research Question

The current thesis sets out to fill the perceived gap in the two main streams of literature on venture capital and international business. First, it specifically addresses the debate on the neutrality of international financial flows in terms of their effect on local organisations and activities; secondly, it addresses the type and extent of influence that occurs as a result of this specific form of international capital flow.

The purpose of this thesis is therefore; to investigate and explain the impact of foreign limited partners on venture firm behaviour.

This research purpose is contextually bound to the venture capital industry; however, to a certain extent, it serves to address the larger question: Can control and influence be achieved through portfolio style foreign investment? If so, what is the form and extent of this control and influence?

To address this question, the thesis draws upon a unique database covering the Swedish venture capital firms' investment strategies, management activities and roles and management attitudes, all collected through an on-line survey instrument. The survey includes 145 individual questions covering the strategy and management activities of the venture capital firms, as well as attitude questions towards the industry, entrepreneurship and the role of venture capitalists. The overall question is addressed in the form of seven hypotheses, derived from the extant literature and a set of pilot studies, which are tested by statistical means. The statistical tests cover a range of techniques, including ordinal regression, binomial logistic regression, and complex ANOVA.

Intended Contributions of the Study

The combination of the venture capital research and the research on international business offers many questions that can prove to be very fruitful (Gompers and Lerner, 2003). At one level, there is generally much more to be learned about the specific empirical setting of venture capital. Katzy (Haemmig (2003) preface), summarises that:

Research about the venture capital industry is comparably recent, aspect driven and immature. It is not yet the time for general theories because the venture capital industry itself is still in an emerging state, especially in Europe and Asia, but even to some degree in the US.

The intended contribution of this study is, therefore, first in the field of venture capital where research is gathering momentum. While the growing phenomena of international financial flows, and the steady growth of the venture capital industry in multiple countries remains to be by comparison, relatively small, this is an exciting area of growth, and serves an example of one of the pinpointed finance and international business topics that are of contemporary interest (Butler, 2006). The findings of this study may be used, and built upon, beyond the empirical setting of the Swedish industry. For example, in other national settings; or in the broad arena of cross-border financial aid from developed to developing nations.

Venture capital is well understood as an essential component for economic growth (Saxenian, 1994). However, the impact is almost always

seen as purely economic, in terms of the availability of venture capital being a facilitator of accelerated growth (Bartholemew, 1997), and the capital flows are treated as neutral in all other respects. This study begins with a view that venture capitalists are actors who make decisions regarding the investments they make, the value-added activities they employ, and the attitudes they have toward their industry, entrepreneurship, and their role in the industry. These decisions matter in the outcome of the type of firms that are promoted and facilitated, and the type of entrepreneur that is favoured to succeed; that is to say, that venture capitalists play an active role in the formation and direction of innovation systems. Importantly, the venture capitalists are not actors in a vacuum, however, and are in a multitude of ways affected by their context, including the institutional and cultural environment, the demands of their task, their previous socialisation experiences, and their own individual traits. Approaching the field of venture capital in this way is intended to contribute to the discourse on the social elements of venture capital (e.g. Sapienza et al., 1996; Elango et al., 1995, Bruton and Ahlström, 2003). I would argue that by exploring the role of the geographic source of funding in the actions of the venture capitalist, we can explain some of the variability in the industry that has been missed by a purely financial or economic approach.

The contribution is also intended to go beyond the empirical field of venture capital, and address the scope of local influence from international funding as opposed to domestic funding through intermediaries. The capital flows that are central to this thesis are of a kind that falls outside the scope of traditional international economics or international business - specifically foreign direct investment (FDI) theory - but that, nonetheless, may share certain properties with our current understandings of the impact of international equity flows through the Multinational Enterprise (MNE). By holding up the characteristics of this specific type of capital flow to existing frameworks and theories of capital flows, we may open up for refinement of current dominant views on capital flows.

Outline of the Thesis

The structure of this thesis closely reflects the research process behind it. In *chapter 2*, the extant literature in the two relevant, primary strands of research is reviewed. First, the theoretical and empirical-based studies of venture capital are reviewed from a thematic and historical perspective. Subsequently, an overview is presented of a selected portion of the broader theoretical understandings of international capital flows and the integral notion of control is provided.

Chapter 3 ties together these two strands to develop a conceptual model that links international capital flows to the local venture capital industry. Five hypotheses are formulated in regard to the primary venture capitalist activities of selecting and managing their portfolio firms.

In *chapter 4*, four brief pilot studies are presented, the conceptual model is refined to include additional variables arising from the pilot studies, and further hypotheses are presented. The pilot studies in chapter 4 are also used as the basis for developing appropriate questions for the data collection stage of the research.

In *chapter 5*, the research design and data are outlined. This chapter details the questionnaire design and sample, as well as provides the specifics of the operationalisation of the dependent and independent variables of the study. Baseline aggregate results from the sample are provided for each of the main variables. The statistical tools employed in the subsequent chapter are also presented.

Chapter 6 presents the sequential statistical testing of the main hypotheses, the results of which are summarised at the end of the chapter. The findings show mixed results; however, they do display particularly strong findings with respect to the effect of foreign funds on the specialisation choice in investment strategy and in strategic versus operational involvement in management activities. The chapter continues with the statistical testing of the additional variables identified in chapter 4. Strong results were found in the venture capitalist involvement with portfolio

Chapter 1

management when actively structuring for foreign fund raising, and between the firms' expressed identity reference and their choices regarding management activities and management attitude orientations.

These results are then integrated in *chapter 7* to provide empirical evidence of the degree of influence from the capital flows, thereby, indicating the strength and scope of influence through what we will label foreign indirect investment (see Dunning, 1992 and chapter 2).

In *chapter 8* the more salient or surprising results are discussed in more detail in relation to existing theory. The implications and contributions of this study are also outlined, and suggestions are made for future research.

CHAPTER 2

THEORY OF VENTURE CAPITAL AND INTERNATIONAL CAPITAL FLOWS

This thesis finds its basis in two primary fields of literature: first, the work on venture capital, an empirical field of relatively recent interest that has a theoretical home in financial economics, but which has more recently been subject to further investigation through multiple theoretical lenses; secondly, literature on international capital flows, approached through the fields of economics and international business, and covering a wide range of subtopics, of which the stream related to control is the most relevant for this research. In this chapter, the two fields of literature will be outlined in turn. Part one reviews the field of venture capital that forms the empirical setting for this research, and part two outlines the broader field of international capital flows and the associated issue of control.

Venture Capital Research Review: Theory and Empirical Studies

The purpose of the following section is to review the field of venture capital, providing an overview of the changing focus and developing understandings of the empirical field over time. The main studies selected for emphasis are those that have approached the phenomena of venture capital from a comparative or institutional approach and qualitative outcome studies, rather than those purely within the field of entrepreneurial finance; although a selection of those studies is included to the extent that they provide important understanding of the industry.

The phenomenon of venture capital began to receive tentative research attention in the 1970s. The early research was dominated by parochial studies stemming from the United States; the research field mirrored the growth of the industry and was highly normative in its approach. The research rationale was to improve success rates and offer

strategically important insight to those interested in obtaining venture financing. Over the subsequent 25 years we find increasing sophistication in the methods used for studying what venture capitalists do, and how they go about doing it.

The early studies attempted to map the field of venture capital and were strongly dominated by empirical studies employing cross-sectional design. The primary source of data was through surveys using mail questionnaires, and to a lesser extent, telephone interviews. Most of the studies in the early period do not refer explicitly to any theoretical framework; however, implicit in much of the investment decision studies are theories of financial economics (Fried and Hisrich, 1988).

The first review of the field was conducted by Tjebjee and Bruno (1981) where six venture capital studies were identified. The next major review marked the close of the early stage of venture capital mapping with Fried and Hisrich (1988) reviewing the state of the field in terms of academic interest and research activity. At this time, a total of 16 articles, 18 proceedings papers, and 6 book chapters were identified. Given the marked increase in volume, the field could be categorised and the research topics were grouped into six primary areas: *portfolio, investment decision, operations, strategy, impact on the entrepreneur, and public policy*. A more generalised classification approach is illustrated by Boocock and Woods (1997), identifying the research through two primary headings: the analysis of the investment cycle as a whole and the identification of the selection criteria utilised in deciding which investment applications to accept or reject. Early reviews of the field are in agreement that the majority of the research is focused on the portfolio and investment decision topics.

A current literature search results in at least 180 published peer-reviewed articles⁷ with a primary focus specifically on the empirical phenomena. The majority can be found in specialised journals; additionally,

⁷ The search process involved a review of major journals in International Business, Management and Organisation, as well as Entrepreneurship, Small Business, and Business Venturing. The subsequent articles were cross-checked for completion with a review conducted by Gatewood et al. (2003) from primarily entrepreneurship journals. Following this review, a less systematic process was used to find the most relevant and influential articles.

the number of unpublished studies is thought to be high. As in many fields, there is an ongoing debate as to the extent of the research. Observations of the immense quantity of studies focusing on this empirical area are contrasted with beliefs that we are still in the infancy of development. The state of the research can be placed in respect to five overarching themes or key areas of focus. Consistency can be found by grouping the studies, despite some overlap, into two dominant periods: the early period, extending from the early 1970s through to the late 1980s, and the more recent studies from approximately 1990 to the present, with 1988 revealing a directional change.

The overarching themes that have been of interest to researchers and that will be presented in the following review are as follows;

1. Role considerations

What is venture capital and why does it exist?

2. Selection Studies

How are investments selected by venture capitalists?

3. Process Studies

What do venture capitalists do, and how do they do it?

4. Outcome Studies

What is the result of Venture Capital?

5. International Comparative Studies

How does the industry differ between countries?

6. Cross-border venture capital

How do multinational venture firms operate?

This thesis does not cover exclusively only one of these themes, but draws upon the findings primarily from the selection and process studies, combined with the underlying theoretical viewpoint of the international comparative studies.

Early Period Studies – Universal Mapping

While there does exist occasional references to earlier studies there is some consensus among researchers of venture capital that the first wave of interest in the phenomena of venture capital is inspired by the work of Wells (1974)⁸ and his decision process study on venture capitalists in Pittsburgh. Primarily a descriptive study, a rating scale was used in an attempt to ascertain the existence of criteria that discriminated between ventures on the basis of their eventual success; this formed the basis of the plethora of subsequent work seeking to identify the most important (the most discriminate) evaluation criteria or to rank the relative importance of all the criteria used by the venture capital firms in order to evaluate investments.

The focus on the selection of ventures for investment resulted in empirical mapping with little theoretical discussion and much debate on the relative merits and importance of particular characteristics of new ventures. While a number of ranking methods were used, the majority of these studies rely on post-hoc methodologies (interviews and surveys) to capture the decision process. The most consistent finding of these early selection studies was the primary importance of the management team to the success of a venture and the corresponding emphasis on the evaluation of management in relation to the funding decision. Other than this, there is great diversity of both criteria and ranking between the studies (Zopounidis, 1994).

While primarily focusing on evaluation considerations, Tyebjee and Bruno (1984) provide one of the first *process studies*: developing a framework of the principal activities carried out by venture capitalists. This structuring of the process into 1) deal orientation, 2) screening, 3) evaluation, 4) structuring and 5) post-investment activities has provided the divisions for research focus for subsequent researchers while also reflecting the greater initial interest and emphasis on the front end (i.e. pre-investment and investment activities) of the venture capital process.

On a larger scale, Bygrave (1987, 1988) undertook a sociological networking perspective to investigate one aspect of venture capital be-

⁸ Zopounidis (1994) refers to three studies of Briskman, Sappho and Von Hippel with details from Wells (1974) without complete references; moreover Timmons and Bygrave (1986) refer to unpublished manuscripts and other diverse references from as early as 1968.

haviour, and focused on the syndication of investments by venture firms and the structural details of the co-investment networks. Network connections were identified as facilitating the exchange of resources, primarily the sharing of information rather than the spreading of financial risk, and the amount of co-investing by a firm depended on the degree of uncertainty it faced and the need to gather information.

Early *outcome studies* investigated and focused either on the financial outcome and returns for the individual venture firm (Bygrave, 1988) or on a more macro level, quantified the growth of the number of investments and available funds (Brophy, 1981). As has been noted, much of the work was atheoretical and purely normative, although assumptions from financial theory are generally implicit in the early period studies.

The late 1980s was a turning point in extending the research scope and moving away from the self-contained view of venture capital where returns on investment and the success of the portfolio firms were the primary focus. Specifically, notably important work at this time began to explore connections between venture capital investment and innovation outcomes.

Timmons and Bygrave (1986) isolated highly innovative technological ventures and noted that venture firms active in these firms create substantial value-added contributions as a result of their intense, early involvement. Importantly, it was found that many venture firms engage in active efforts to identify exceptional innovators and then play a unique role bringing together academic and scientific talent. The outcome identified by the authors was an acceleration of the time span to bring new technologies to commercial maturity.

Providing an important motivation to the current study, Florida and Kenny (1988a; 1988b) extended the theoretical link between venture capital and innovation outcomes, positing that venture capitalists forge important linkages between a variety of organisations leading to growth acceleration and act as technological gatekeepers (leading to an acceleration of change) while also generating costs by establishing incentives for breakthrough innovation and disrupting established research organisations. Venture capitals' role in altering incentives for innovation is linked here to the idea of natural or technological trajectories; this suggests that the given path of technological development both channels and constrains future technological progress (e.g. Nelson and Winter, 1982). The

organisational and institutional context of society acts as an additional constraint. Since innovation and technological change take place largely within these relatively fixed constraints, only critical technological or organisational breakthroughs can disrupt existing socio-technical pathways and open up new technological frontiers. Venture capitalists are central in extended networks and their actions can lead to a changed market structure. The process of venture capital funding is also seen however to have an important evolutionary and path-dependant element as previous investments are further developed by funding the next step in the progress of particular technology.

Through a generalised comparison of differences in the industry in Western Europe, Tyebjee and Vickery (1988) extended the research geographically in one of the first *international comparative studies*. Macro-environmental factors were considered with a primary aim to provide explanation for differences in both the absolute and relative size of venture capital activity compared to that of the United States. Four main factors were considered and support was found for the impact of market factors, including the size of the technology sector and the culture of entrepreneurship, as well as the importance of tax incentives and viable exit mechanisms.

Taking Stock - Risk and Ambiguity

In their review of venture capital research between 1981 and 1988, Fried and Hisrich (1988) discuss the theory development in the area. They point out that attempts to apply financial theory to venture capital research had run into problems. One of the identified difficulties was the level of uncertainty involved, making quantification difficult, thus raising the question as to whether expected value - as applied in other financial investment categories - was the proper decision criteria (Lopes, 1981, 1983). Compounding the uncertainty considerations was evidence that venture capitalists are not entirely rational decision makers (Sahlman and Stevenson, 1985). Finally, it was recognised that the contributions of the venture capitalist to the entrepreneurial firm are more than financial. Financial theory should, therefore, not be the only theoretical basis for research. Fried and Hisrich (1988) speculate that, given the fact that venture capitalists play an active role in the strategy, marketing, management, and legal structure of the entrepreneurial firm it is likely that concepts from

all of these disciplines are relevant to the study of venture capital. The work by Fried and Hisrich (1988) underlined that what is different about the study of venture capitalist decision behaviour as compared to other financial institutions, are the extreme levels of uncertainty and ambiguity⁹ in the decision-making process, which is pivotal to their role. Barry (1994) highlights this by describing the investment of private capital funds as "a remarkable feat of financial engineering" where the investors place their funds in the hands of venture capitalists (of uncertain ability) who seek out promising ventures (which are risky ventures managed by entrepreneurs whose skills are not known and whose future efforts are not predictable). The firms that are being invested in often have no revenues and no products, only unproven and untested ideas, and are often without a complete or experienced management team.

Linked to the growing understanding of risk considerations, most of the non-finance based theory developments have concentrated on the venture capitalist/entrepreneur relationship. The venture capital process is characterized by multiple principal-agent relationships (Barry, 1994; Sahlman, 1990) and agency theory became the dominant theoretical framework. Agency theory has been used to explain the existence of the venture capital industry (Amit et al., 1990, 1998) and from this perspective the information asymmetries between the entrepreneur and the investor have been in focus (e.g. Sahlman, 1990; Norton, 1993). Within an agency theory perspective, less research effort has been directed toward the investor/venture capitalist relationship, and it has been noted that there has been very little focus on the interaction between those two relationships¹⁰.

⁹ *Ambiguity* is distinguished from both *risk* and *uncertainty* as defined by Knight (1921). *Risk* refers to the probability distributions that can be calculated based on the basis of present data that can be reasonably expected to be valid for the future and *uncertainty* to the situation, whereby, no such calculations can be derived. *Ambiguity*, or interpretive-ambiguity is developed by Fransman (2000) in a discussion of the Telecom Industry, and refers to the situation faced by decision-makers in the financial markets as being not only one of incomplete information, but one where the information set is capable of yielding contradictory inferences about what will happen. In the situation of interpretive ambiguity, the decision-maker constructs a vision of what will happen in the future, which is based on personal beliefs and expectations. Stemming from this discussion is that the decision to invest explicates these visions, and to some extent the underlying beliefs and expectations, which leads to the possibility of expressed disagreement of these visions, or alternatively, the development of circular expectations.

¹⁰ Although in providing a detailed description of the way in which venture capital operates, Sahlman (1990) points out that fund contracts are designed to minimise the possibility that the venture capitalist will make decisions that are against the interest of limited partners. Gompers (1994) provides an

Later Studies: Adding Complexity and Context

The late 1980's marked a rapid rise in the number of venture capital studies, and an increasing sophistication of methods. Fascination with the selection process continued however, and many more of these types of studies remain unpublished. A number of trends can be noted:

First, there was a move away from the post-hoc methodology. A greater awareness of the consequences of high levels of ambiguity and risk resulted in a new wave of selection studies employing more sophisticated methods to answer the same questions, such as: by what criteria investment decisions were made. Verbal protocols of decision making added to the understanding of the sequencing of conscious choices (Sandberg et al., 1988), the structuring of intuitions (Hisrich and Jan-cowicz, 1990), and decision criteria changes during the decision process (Hall and Hofer, 1993). Alternative methodological advances were made through the application of conjoint analysis to the post-hoc method (e.g. Muzyka et al., 1996; Shepard, 2003).

Secondly, there was an extension of studies of decision criteria away from a nearly pure North American domain in the form of non-US ethnocentric studies (e.g. Shepard, 1999; 2000; 2003) and replication and comparison of the US studies in other national contexts (Ray and Turpin, 1993, Knight, 1994, Muzyka et al., 1996). These studies were designed to meet the criticisms that the previous research on investment criteria had been exploratory and assumed a single hierarchy of decision criteria in all cases, and across all venture capitalists (Muzyka et al., 1996).

In response to the dominance of survey studies on decision criteria, Zacharakis and Meyer (1998) found that the decision policy that venture capitalists said that they used differed, in fact, from the decision policy that they actually used. This is a finding that is supported by Shepard's (2000) focus of *in use* versus *espoused* criteria. Zacharakis and Meyer (2001)

example in which the need to attract additional investments may cause the venture capitalist to offer advice counter to the interests of the entrepreneur, pointing to the situation where the venture capitalist serves a dual role as principal in some respects and agent in other respects when working with an entrepreneur. Specifically young venture capital firms can take steps to list the portfolio companies too early in an attempt to create a good reputation in connection with raising capital for a new fund (Gompers, 1995 in Willquist, 2003).

then took this finding further by introducing evidence of cognitive differences in how venture capitalists make decisions. These studies are concerned with the existence of biases, however rather than presenting the idea of bias as evidence of systematic differences between the venture capitalists', these are brought into focus as they are thought to cause decision makers to process information incorrectly, which may lead to inaccurate decisions and judgements. Understanding biases is interesting in their study for the normative ramifications of overcoming these biases and, therefore, improving decision quality.

Using a case study approach, Steier and Greenwood (1995) explored the relationship between entrepreneurs and investors. While predominantly a process study on post investment interaction, they found that penetrating the venture capital network was a significant first step for a firm in obtaining funding, and that relationships exceeded business plans in securing financial resources. Therefore, the personal network of the venture firms was seen to impact the investment decision.

Process studies in the later period display an increasing emphasis on understanding the final phase of Tjebbe and Bruno's (1984) model - *the post-investment period* - with recognition of the non-financial value-added to the invested capital by an active participation. Once again, primarily through the use of mail questionnaires, the post-investment involvement and activity of venture capitalists in their portfolio companies was mapped (e.g. Gorman and Sahlman, 1989; Sapienza, 1992).

The majority of understandings developed from the process studies have been assumed to be universal; however, important work drew attention to the existence of differing categories of venture capitalists and their management approaches (MacMillan et al., 1989). This distinguished between high and low involvement (close tracker, moderate and laissez faire), as well as indicated contextual differentiation in the management behaviour of venture capitalists between regions that appear to be unrelated to strategic profiles (Elango et al, 1995). These authors made speculations that regional differences are actually culturally driven and call for qualitative research for further investigation.

Fried and Hisrich (1994) argue in a speculative manner that there could be differences between regions based upon regional characteristics (geography, history, and economy), industrial culture (risk-taking versus conservative; formal versus informal), and organisational and manage-

ment orientation (organisational commitment and management styles). They highlighted the fact that, at the time, there had been limited research on this topic.

Sapienza et al., (1996) focused on governance, operationalised as the amount of face-to-face interaction between the venture capitalist and the CEO, and venture capitalist value-added across four countries (U.S, U.K, the Netherlands, and France), and included structural and maturity differences when examining the determinants of interaction. While some similarities were found between markets, the level of involvement and the factors that drove involvement varied across the four national contexts. Although extending beyond the scope of their study, differences in their regression equations were noted to be consistent with a cultural explanation and speculations extended to the applicability of Hampden-Turner and Trompenaars' (1993) country groupings of managerial values.

The few process studies of venture capital activity in Europe parallel the US-based studies, and also provide insight into the social roles that venture capitalists play. While diverse approaches are undertaken, and the primary perspective is from the side of the entrepreneur, the findings support a view that the process activity and role of venture capitalists vary between contexts. Harrison and Mason (1991), found entrepreneurs in the U.K rate sounding board and strategic activities of the venture capitalist as most important. VanWakeren et al. (1989) found that, in the Netherlands, strategic assistance and networking assistance are important. In Finland, Ahdekivi (1990) concludes that the activities of financing and active oversight are rated most important. In Sweden, the results of Fredriksen et al. (1990) indicate that access to capital, venture capitalist competence, moral support, and networks are the most important activities. In addition, Landström (1993) found four styles of venture capitalists with differing orientations: consultancy, mentor, operations, and structure. These last two studies undertaken in Sweden give recognition to the importance of personal relationships between the venture capitalist and the entrepreneur.

Barney et al. (1994) contributed to the social role discussion by pointing out that, unless the entrepreneur is receptive to venture capitalist advice, no value-added can be achieved through involvement.

Extending the process studies of networks and syndication, Manigart et al. (2002) investigated the motives for syndication of European

venture firms. It was noted that, while in the US 60% of investments were syndicated, in Europe the overall figure was only 30% - with little variation even between differing financial systems; the motive was more dominantly a desire to spread financial risk, which goes against the earlier North American findings on syndication practices.

Moving away from focussing solely upon the individual financial success of venture firms and their portfolio companies, a growing interest can be observed in patterns of the non-financial or qualitative *outcomes* of venture capital activity - primarily the extent and determinants of geographic and industry scope. Gupta and Sapienza (1992) observed differences in scope for early stage investments versus later stages. Their research showed more specialisation and narrower geographical radius corresponding with the early stage investments. Within the Finnish setting, De Clercq et al. (1999) pointed to greater industry specialisation and widening geographic diversification developing over time with both industry and individual firm maturity.

The most extensive study of spatial distribution to date is that of Sorenson and Stuart (2001), which covers both industry and geographic dispersion patterns. Attributed to informational exchange limitations, in terms of information diffusion and interpersonal interaction patterns, they find that the industry is characterised by cluster arrangements. As spatial radius can be extended by individual firms, they point to the importance of networks and network positioning in determining the extent of the individual firms' constraints in scope. Relevance is argued by highlighting that, as the industry amasses greater pools of capital, they expand their influence in determining who receives funding to pursue their entrepreneurial visions. To the extent that these spells of entrepreneurship affect socio-economic trajectories, venture capitalists become agents for social stratification. In the same vein as Florida and Kenney (1988a; 1988b), Sorenson and Stuart (2001) propose that venture capitalist investments have been, and will continue to be, critical catalysts in the development of many new high-tech industries.

In an attempt to systematically treat the assertion of a connection between venture capital and innovation - and to address the issues of causality between venture funding, patenting, and the arrival of technological opportunity - Kortum and Lerner (2000) present a stylised model of the relationship between venture capital, R&D, and innovation. The

impact of venture capital on innovation is demonstrated through estimations that, in the United States, the funds provided as venture capital produce three times the level of innovation (as measured by patent quality) than traditional corporate R&D. With patents and patent quality providing a proxy for innovation quality, the indirect findings confirm the driving role of venture capital to innovative activity.

Von Berg and Kenny (1999) examine the role that venture capitalists played in facilitating the emergence of the local area computer networking (LAN) industry in the United States, hence, the role of venture capitalists in the construction of innovatory firms and new industries. The pre dominant-design phase is characterized by an envisioning process of the technology and *gut feelings* about the people involved. The process in the LAN example displays a less rational view than a straightforward construction of firms and, as described by Von Berg and Kenny (1999), it involved "cobbling together of things" and leaps of faith.

In addition to the country specific empirical studies of qualitative outcomes, the 1990s also resulted in a number of *international comparative studies*, particularly with a focus on Europe. While a number of the later selection and process studies are international in scope, the following studies are distinguished from the preceding work since they are based in a priori understandings of variance, or opposition to such, in market structure or environment.

Ooghe et al. (1991) looked at the link between type and source of funds and investments in the European context. A link was hypothesised between funds and the growth patterns determining the maturity of the industry in a particular country and, thus, presupposed a universal pattern of development. The results of the study were inconclusive, which point toward unique characteristics of the venture capital market in various countries: evidence that the European venture capital industry is not only structurally different from the US, but that even within Europe, it cannot be approached as a single undifferentiated industry.

Sapienza et al. (1996) highlighted previous research findings supporting that the venture capital industry is heterogeneous across markets due to institutional, legal and cultural environments, and the dominant corporate governance systems. They go further to find that there are differences in the approaches to the valuation of projects in terms of complexity in the process, and the degree of reliance on financial information.

Manigart et al. (2002) developed and tested hypothesis regarding the determinants of required return by venture capitalists in a five country study. What they found was that required returns are greatest in the US and lowest in Belgium and the Netherlands - across all stages of investing. Two possible explanations were surmised: from a finance perspective, it was interpreted as reflecting competition or the ability to control risks; from a resource-based view, a plausible explanation was the greater knowledge and venture-assisting competencies in the US translating into higher returns.

Cross-border venture capital is a rather limited stream of venture capital related research and has focused exclusively on the situation of a venture capital firm from one country investing in portfolio firms that are located in a different country. Within this stream, Meyer and Shao (1995) continued in the US focused empirical approach, and focused on the portfolio diversification motivation of cross-border investments. It was noted that investing at a distance entails significant agency costs, with the main contribution of the study the emphasis on the difficulties for US entrepreneurs in finding foreign financiers. An important contribution by Pruthi et al. (2003) in a study of financiers operating in India was that cross border venture capitalists allocated more efforts to strategic level issues, while the domestic firms guide their portfolio firms at the operational level.

In a thorough study of cross border venture capital using a grounded theory approach, Mäkelä (2004) builds on the concept of investment commitment and the mediating effect of geographical and cultural distance. It was found that cultural proximity may be more important to venture capital investment than it is for other investments, for instance investment in stock exchange quoted securities.

Dominant Rational Models: Best Practice Venture Capital

Underlying most of the research has been the view that venture capital investment decision-making is a rational process and, therefore, the processes and selection outcomes have been generally considered through the multiple definitions that decision researchers have applied to the term

rationality. One of the primary views of rationality implicit in the dominant venture capital literature has been strategic rationality, which is demonstrated by selecting means that efficiently lead to a chosen goal (Hedborg, 1996). The role of the individual venture capitalist is given prominence in that their decisions can be considered optimal or can, at least, be compared to a possible optimal decision. The assumption in the majority of the research is that the venture capitalists make free choices, they are not constrained or influenced, and that there is an optimal best way for venture capitalists to select and manage their own investments. As noted by Willquist (2003), there is a dominant over-confidence pervading throughout literature on the level of decision rationality possible by venture capitalists. The literature review revealed that while not in the majority, a select group of researchers have found evidence that clearly contradicts the rational process viewpoint, for example, that venture capitalists may be rational in their individual investment decisions but may ignore the logical cumulative consequences of their individual investment decisions (Sahlman and Stevenson, 1985); that venture capitalists do not have a strong understanding of their investment decision processes (Zacharakis and Meyer, 1998), and that they differ between their 'in-use' and 'espoused' decision criteria (Shepard, 2000). Even with these research findings that point toward other behaviour drivers - institutional and, in particular, cultural - thinking remains on the fringe of the venture capital arena, and best practice venture capital views, in fact, dominate the research field.

Theories of Institutions and Venture Capital: Determinism

Three studies are notable in the specific application of institutional theory to venture capital: Suchman (1995) focused on the emergence of contractual norms in venture finance in the Silicon Valley region; Bruton and Ahlström (2003) invoked an institutional framework to explain differences in the industry between China and the west; and, Mäkelä (2004) applied an isomorphism perspective to cross-border venture capital and internationalisation. These papers are reviewed here.

Two broad approaches to analysing institutions are sociological

and economic, which can be complementary to each other (Scott, 1992). For economic institutionalists, the relevant framework is a set of political, social, and legal ground rules that fixes a basis for production, exchange, and distribution in a system or society (North, 1990). Such institutions tend to shape a system by structuring political, social, and economic incentives involved in exchange. Sociological institutionalism focuses on legitimacy building and role shaping actions of institutions (Suchman, 1995).

Stemming from a blend of both economic and sociological institutional thinking - a framework that was considered by Bruton and Ahlström (2003) to be helpful for analytical purposes when understanding the influence of the institutional environment on venture capital (in this case, specifically in China) - was that of Scott (1995). This framework, or organising scheme, is built upon the work by DiMaggio and Powell (1983, 1991), North (1990), and Selznick (1957). Institutions are categorised into regulatory, normative, and cognitive groupings. Regulatory institutions are the most formal, representing standards provided by laws and other sanctions. This level of reasoning and evidence of regulatory differences between settings has, in fact, been most frequently invoked to explain differences in observed levels of venture capital activity between nations. Normative institutions are less formal or codified, and define the roles and actions that are expected of individuals. Cognitive institutions represent the most informal, rules that are taken-for-granted, and beliefs that are established among individuals through social interactions among participants. Within the framework, it is proposed that the cognitive and less formal normative institutions are propagated and, thus, influence a society through the community's culture. The approach views institutions through their constraining and enabling roles for action. The main flaw in this approach is its static nature - the behaviours are observed and attributed to the existence or absence of certain institutions, and there is little explanatory power to account for the existence of a specific institutional configuration, change, or heterogeneity within an institutional setting. The framework neglects much of the process, and institutionalism is both a state and a process.

The exploratory work of the Bruton and Ahlström (2003) study, while very broad in nature by grouping the venture capital literature into a generalised western universal perspective, revealed several significant

differences in the actions of venture capitalists in China compared to those in the west. These differences included: selection, relationship structuring and monitoring, value-added activities, and exit behaviour.

The work of Suchman (1995) was the first to apply institutional theory to the venture capital industry, specifically to the institutionalisation of the venture capital financing practices in California's Silicon Valley during the period of 1975-1990. The starting point is the organisation theory postulation that institutionalisation can occur on a number of different levels of analysis, including; interpersonal interaction, organisational fields (DiMaggio and Powell, 1983), or society wide cultural systems (Meyer and Rowan, 1977). Suchman (1995) attempts to seek the determinants of institutions - the purpose being to describe processes by which actors in an organisational field develop common conceptions of the field and common rules or models of appropriate organisational forms. The locus of institutionalisation or the level at which shared understandings develop is, therefore, of interest in the research. While a number of levels are present, and multiple processes are concurrent, a dominant top-down or bottom-up development effect may be distinguishable depending upon the forces affecting the origin of the locus of control. The multi-stage model of institutionalisation put forward by Suchman (1995) is based upon problem generation, problem cognition, problem-naming, and response categorisation. When the actors perceive that there are problems in the present situation, it is believed that new models or practices are sought. A problem arises when there is a difference between a desired state and a present state and, therefore, the perception of a problem is a result of a comparison. These problems and comparisons may arise on any level of analysis: from the individual to the society. Problem-driven processes may be related to solution-driven change processes at a societal level; that is to say, the solutions may precede and dictate problems (Cohen et al, 1972). This is not addressed in relation to the Silicon Valley empirical setting specifically, given the findings by Suchman, although the existence of solutions and solution-driven problematisation becomes relevant when we look at the corresponding institutionalisation processes in subsequent time periods and different spatial contexts.

Suchman (1995) theorises three potential loci of institutionalisation:
1) Institutions could have developed at a national level and diffused

down to the Silicon Valley setting; 2) institutions could have developed locally as a collective product of the Silicon Valley community as a whole; or 3) institutions could have developed at certain sites within Silicon Valley and then diffused outward, first to the rest of the community and then to the nation at large. Results indicate that, in the case of Silicon Valley, practices became more routinised over time (institutionalised), and for most time periods, the routinisation declines with distance from the core of Silicon Valley. In other words, there was a strong indication that institutionalisation developed at a local level. These results lend empirical support to the well-accepted starting point in venture capital research: that the Silicon Valley model and the associated venture capital practices are the original 'master idea' of venture capital.

More recent work by Mäkelä (2004) looked at the effect of exerted conformational pressures by venture capital firms that can impact the portfolio firms. In the empirical setting of the Finnish venture capital industry, the primary outcome studied was the internationalisation by the portfolio firms. It was concluded that internationalisation activities of the portfolio firms were affected by the venture capitalist as a result of coercive isomorphism; that is to say, explicit pressures exerted on the portfolio company by the organisation (venture capitalist) from which their resources depend.

Prevailing Explanations for Differences in Venture Capital: A Synthesis

Irrespective of the adopted perspective, it is agreed that there are observable differences between national venture capital industries, as well as between individual venture capitalists operating in the same market. Identified in the empirical studies are a number of explanations for differences between individual venture capitalists, and within the venture capital industry across regions and countries. A focus on differences can be distinguished between those studies that are interested in explaining variation in the size of the industry and those that have a focus on differences in the actions (type and extent of value-added activities) of venture capitalists.

The early studies focused on size differences in regional develop-

ment within the United States; typical explanations for the geographic concentration of venture firms centred on the presence of high-tech companies that spawned entrepreneurs, the existence of incubators providing entrepreneurs with low-overheads through shared resources, and the mobility of the population (e.g. Florida and Kenny, 1988). Macro-environmental forces were introduced as affecting venture capital industry size as the industry became more strongly present as a form of financing outside of the United States.

Factors thought to affect the size of the industry include: maturity (De Clercq et al, 1999); overall level of economic development; cyclical economic conditions; and, political instability. In addition, institutional factors include: the financial systems (Bartholemew, 1997) and, therefore, the 'equity gap' that is available for venture capital funding; laws on labour and intellectual property rights providing incentives to entrepreneurs (Patricof, 1989); the size of the technology sector; the financial market for new companies (existence of exit opportunities); and, public policy incentives (tax) (Tyebjee and Vickery, 1988). The 'culture of entrepreneurship' is also thought to drive the size of the industry (ibid). These explanations are grounded in the basic assumption that it is the existence of entrepreneurial ventures that drives the size of the venture capital industry. That is, supply follows demand.

Studies with a focus on differences in actions have primarily highlighted the amount of time spent and the type of assistance provided in the post-investment period. Explanations for systematic differences in the amount of involvement have found that a higher level of involvement appears to be connected to: 1) early development stage of the venture; 2) higher technical innovation levels; 3) shorter geographic distance between the venture firm and the portfolio company; 4) less experienced partners; and, 5) larger venture firm ownership and less personal investment by the entrepreneur (Sapienza, 1992; Sapienza et al, 1996).

The majority of explanations for differences in the amount, as well as the type of involvement stem from the 'stages of development' perspective (Ruhnka and Young, 1987), which explains differences not by looking at the venture capital firm, but by looking at the development stage of the companies in the portfolio company. A second perspective, the strategic choice stream (Robinson, 1987) does not disagree with this perspective, yet argues that the concept does not explain all the differ-

ences that can be observed between venture capitalists.

Elango et al. (1995) base their empirical study in this literature, building and testing hypothesis. The stages-of-development perspective provides the following confirmed stage differences in the US context: venture capital firms investing in early stage investments have a higher interest in proprietary products, product uniqueness, and high growth markets (differences in strategic preferences). They are also more important in evaluating and recruiting management, and in assisting with operational planning (differences in involvement type). However, strategic choice explanations were attributed to selection criteria for management and the amount of time spent with a portfolio company as these did not vary systematically by stage; this contradicts the findings of Sapienza (1992).

Independent variables affecting interaction behaviour also include perceived uncertainty, mitigated by venture capital experience (years of experience as a venture capitalist, venture capitalists focal industry experience), and the perceived business risk (mitigated by entrepreneur experience and length of time of portfolio inclusion). The importance of these variables as predictors of involvement has, however, been shown to vary by country (Sapienza, 1996).

Taking a different approach and basing assumptions in the possibility of systematic differences in the venture capitalists themselves, Bruton and Ahström (2003) put forward normative and cognitive institutions as explaining the differences in approach in venture capital actions, particularly the monitoring of firms and the type of involvement – for example, in China as compared to the west. And, as presented in the previous sections, researchers have noted systematic differences in the value-added activities of local versus foreign venture capital firms (Pruthi et al. 2003) and in connection to the type of limited partner in regards to their institutional form (Mayer et al., 2005).

The broad range of identified independent variables that impact the venture capital industry and the type and extent of value-added activities is summarised in Table 2.1. The three main dependent variables in the research provide the structure for this summary: the size of the industry, the amount of venture capital involvement, and the type of venture capital involvement. The research on size of the venture capital industry is not directly related to this current study; however, it is included here as

it constitutes a major part of the research in this field when differences in the industry are the focus.

**Table 2.1: Summary of Identified Research Variables:
Differences in Venture Capital**

Dependent Variable	Independent Variable	Reference
Size of the Industry - Regional Variation	Presence of High Tech Companies Existence of Incubators Mobility of Population	Florida & Kennedy, 1988
Size of the Industry - National Variation	Same as above, Plus: Maturity Economic Development Cyclical Economic Conditions Financial System Labour Regulations Legal System - Intellectual Property Rights Size of Technology Sector Exit Opportunities Tax Regime Culture of Entrepreneurship	De Clerq et al, 1999 Bartholemew, 1997 Patricof, 1989 Tyebjee & Vickery, 1988
Value-added: Amount of Involvement with Portfolio Firms	Stage of Development Technical Innovation Levels Geographic Distance to Company Partner Experience Ownership Distribution Personal Preferences	Ruhunka & Young, 1987 Sapienza, 1992 Sapienza et al, 1996 Robinson, 1997
Value-added: Type of Involvement with Portfolio Firms	Stage of Development Investors Perceived Uncertainty Investors Perceived Business Risk Cognitive and Normative Institutions Local versus Foreign Venture Capital Firm Institutional Type of Fund Source	Elango et al, 1995 Sapienza, 1996 Bruton & Ahlström 2003 Pruthi et al., 2003 Mayer et al., 2005

The studies on venture capital investment selection are omitted from Table 2.1. As one of the key dependent variables upon which both practitioners and researchers have focused, investment selection studies are quite numerous. Moreover, the individual level dependent variables place most of these studies outside the intended scope of this study. A selection of reviewed articles and key findings are presented in Appendix 4. The studies on selection that have assumed a rational decision approach have looked at: decisions based on the characteristics of the potential invest-

ment (e.g. Poindexter, 1976; Boocock and Woods, 1997); the characteristics of the venture capital firm (MacMillan et al., 1985); as well as personal preferences of the venture capital firm (e.g. Carter and Van Auken, 1994). Other studies have examined the level of intuition (Hisrich and Jan-cowicz, 1990) and limited insight (e.g. Zacharakis and Meyer, 1998; Shepard, 2000). Differences in selection criteria across contexts have been noted (e.g. Knight, 1994).

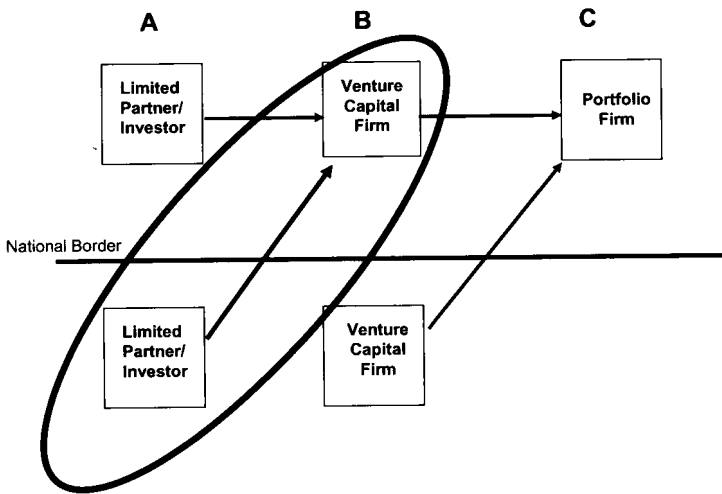


Figure 2.1: Research Gap in Venture Capital Literature

The two areas of venture capital differences that are most closely related to this current study are those relating to the independent variables of *selection*, as presented in Appendix 4 and those relating to *value added: type of involvement with portfolio firms* in Table 2.1. In these two areas, as well as in the studies focusing on the other primary independent variables, we can identify two interesting patterns. First, the majority of the studies pertain to the venture capitalist–portfolio firm relationship (B-C). The actions of the venture capitalist are attributed to either the characteristics embodied by the venture capitalist (B) or the characteristics of the portfolio company (C). There are also studies that look at the external environment of the venture capitalist and the portfolio firm (external B and C), and research on the impact of external contexts that differ for the venture capi-

talist and the portfolio firm (different B to C).

The impact of the limited partner on the venture capitalist and/or the portfolio firm (Impact of A on B and/or C) has received less attention; however, there does exist research on the impact of the characteristics of A on B. Centrally, the research by Mayer et al., 2005 is the closest to the research of the current study; They conducted a four country study looking specifically at the investment activities and sources of finance of venture capital funds. The authors of this work explicitly, and quite rightly, claim that their paper was the first exploratory analysis between sources of finance and investment activities (p. 602). It should be noted that while the conclusion of the study was that the sources of finance are not the main explanation for differences in venture capitalist activities¹¹, but rather unexplored country dummies provided the greater variability, there was sufficient evidence that sources of funds did have an impact on venture capitalist activities.

The review of venture capital literature reveals that, despite the large numbers of research studies in the field of venture capital, there still remain less researched aspects of this important industry, thus leaving gaps in our knowledge. The reviewed literature lacks information on the impact of differing external context of the limited partner to the venture capitalist (different A to B). It is precisely this research gap that the current study intends to go some way toward filling.

¹¹ Nor could support be found for the financial systems approach, a very common method of classifying nations and accounting for differences in behaviour.

International Capital Flows

While the venture capital industry provides the contextual empirical setting, the central broad question addressed by this thesis is the impact of the movement of capital across borders. We know that international flows of capital perform a variety of functions in the world economy; for example, by permitting the levels of domestic investment to be higher than that which could be financed through domestic savings and, therefore, promoting faster economic growth (Lipsey, 1999). Historically, flows of capital have been of interest to researchers due to their specific functions; for instance their role in the short term the smoothing of cyclical fluctuations, financing booms in capital formation, and the provision of higher returns to economies with excess pools of saving.

Given the differing function of inflows and outflows to an economy, the net flow of capital was the primary focus of economists and researchers. These functions were tied to the understanding that international movements of capital were a consequence of capital seeking interest rate differentials and, therefore, were a market transaction for which understanding could be approached with portfolio theory (Hennart, 1982). Portfolio theory explains not only capital seeking higher returns, but also portfolio investments occurring as a result of the search for country or industry diversification - even when current returns or risk profiles are considered equivalent (Lipsey, 1999). A recent definition of portfolio investment derived by the IMF for internationally comparative statistic purposes is:

...the category of international investment that covers investment in equity and debt securities, excluding any such instruments that are classified as direct investment or reserve assets (IMF, 2000).

This definition brings in the distinction that was noted and measured by the US Department of Commerce in the early in the 20th century, stating that some investment flows do not enter into the general financial market because they are internal to a firm, and outflows are not just offset by inflows. These were *direct investments*, and were fundamentally different from interest-seeking portfolio investments. As noted by Lipsey (1999) in his historical review of the changing definition and measurement of di-

rect investment, in 1937 the United States pioneered the surveying of inward investment, and defined it as:

All foreign equity interests in those American corporations or enterprises which are *controlled* by a person or group of persons... domiciled in a foreign country (US Department of Commerce, 1937, p.10, emphasis added)

This notion of control was excluded from early academic research on capital movements until Hymer (1960) noted the difference between direct investments and portfolio investments, and asserted that the distinguishing feature between the two types of activities was the aspect of control - either for competitive reasons or to appropriate returns on skills and abilities. Thereby, he distinguished between the hierarchical and market governance forms for the two types of capital movement. Hymer (1960) asked the question why firms would want to actually own physical capital in a foreign country, and concluded that the firm must believe there is a benefit to be exploited, and that this benefit could only be exploited through ownership and control of foreign operations. Since Hymer (1960), there has been a fairly universal agreement amongst business and economics scholars that the defining characteristic of direct investment, as compared to portfolio investment, is the intent to control.

Dunning (1970) clearly outlines the distinguishing features between direct and portfolio investment, and highlights that the purchasing unit in a direct investment is purchasing the power to exert control over the decision-making process within the invested-in unit. The purchase of control suggests that something other than money is generally involved in direct investment, and that these factors do not apply to portfolio investments. The two main points are that direct investment involves: 1) A power of control over decision making in a foreign enterprise; and that 2) This is usually accompanied by the transference of other factor inputs in the form of knowledge and ideas (Dunning, 1970, p. 5). In Dunning's work, as with the subsequent international business research agenda, the focal reason to highlight this distinction was to explain the existence and characteristics of the multinational corporation (MNC). In this way, the multinational corporation is better perceived as a disseminator of other factor inputs and/or services than a provider of finance. Dunning (1970) lists the potential scope of influence that could occur from the capital

movement; these include:

- 1) Informal managerial or technical guidance, and
- 2) Dissemination of valuable knowledge/entrepreneurship in the form of: research and development, production technology, marketing skills and managerial expertise.

Subsequent studies on the MNC and foreign direct investment investigated, in greater detail, the various transfers that occurred through the influence of direct investment. In general, it has been summarised that the investment is a vehicle for technology transfer (for example, Caves, 1982), and that technology can be broadly understood to include organisational and management skills (for example knowledge of how to organise workers and suppliers). Foreign direct investment (FDI) involves the transfer of a package of tangible and intangible assets from the investing country to the recipient country. Besides physical capital, FDI embodies a bundle of potentially growth-enhancing attributes, including technology, managerial know-how, and access to global distribution networks (Dunning, 1992). The inflow of FDI, therefore, not only affects the level of capital formation in the host country; it can also influence host country productivity via technology transfer and knowledge spill-over (Findlay, 1978; Borensztein et al., 1998; Lipsey, 2000; Buckley et al., 2006). In the last few decades, scholars have considered the rephrasing of the early literature on technology transfer as a hierarchical transfer of knowledge from one country to another (Kogut, 2001).

Irrespective of exactly how the influence is defined, there is an evident distinction between direct and portfolio investments in both economics and business literature. This is also evident in international statistical reporting practices between portfolio investments and direct investments. Portfolio investments are found in the markets for bank loans, government securities, and traded company bonds and equity, where there are many buyers and sellers competing to supply or acquire standardised types of assets with fairly well-defined prices in identifiable markets (Lipsey, 1999). Direct investments are internal to each firm, and reflect the objective of obtaining a lasting interest in (e.g. IMF/OECD), or control (e.g. Dunning, 1970), over the investment enterprise. The IMF provides recommendations that a direct investment occurs when the investor owns 10% or more of the ordinary shares or voting power (for an

incorporated enterprise), or the equivalent (for an unincorporated enterprise) (IMF, 1993, p.86)

In later work, Dunning (1992, p.5) provides comprehensive definitions of foreign direct investment, and what he calls foreign indirect investment, which includes portfolio investments, and also a somewhat expanded idea of asset transfer without the retention of control. By using the two category approach, this designation is in line with the IMF (2000) classification that defines portfolio investment as any investment that is not a direct investment.

Foreign Direct Investment

- (1) The investment is made outside the home country of the investing company, but inside the investing company. Control over the use of the resources transferred remains with the investor.
- (2) It consists of a package of assets and intermediate products, such as capital, technology, management skills, access to markets and entrepreneurship.

Foreign Indirect Investment (i.e., portfolio or contractual transfer of resources)

- (1) Specific assets and intermediate products (e.g. capital, debt or equity, technology) are separately transferred between two independent economic agents through the modality of the market. Control over the resources is relinquished by the seller to the buyer.
- (2) Only these resources are transferred.

Dunning (1993) p. 5

Investment in Venture Capital

Following the classifications of Dunning (1970, 1992), the movement of capital across borders in the venture capital fund-raising process most closely resembles a portfolio investment by the limited partners. However, the assertion in this thesis is that elements of investor control in various stages of the investment process render this activity different to a

purely arm's length transaction. The structure of the venture capitalist and limited partner relationship is not supportive of a purely a portfolio investment; there are some specific considerations undertaken by the limited partners that go beyond an interest rate differential, and the limited partners cannot withdraw their commitment at any time, but are committed to the fund for the contracted fund time period. Investors participating in the private equity market (which includes the venture capital actors) are relatively heterogeneous, and choose this form of investment for a variety of reasons. The investor relations committee of the European venture capital association lists the reasons as including diversification from public markets, exposure to markets not available through the public markets, lending opportunities, a stepping stone to investing in direct investment programs, technology transfer, and the economic development of a region or a country (Simpson, 2000).

Yet, the affiliation created through the limited partners investment is not akin to a MNC parent and subsidiary relationship, as the investment does not imply ownership of the venture capital firm; the potential control aspect is limited to the pre-investment decision process or indirect control mechanisms, and the returns are purely financial. In other words, the investment type is something other than either portfolio investment or a direct investment. The governance mechanism is possibly similar to that of a *relationship*, as developed in the markets as networks perspective in which there is a social mechanism (cf. Granovetter, 1985; Jones et al., 1997) that influences the exchange behaviour, although this does not replace the contractual rules governing the exchange between the limited and general partners.

Despite the assessment that the limited partner and venture capitalist relationship is distinct from a multinational corporation's relationship with a subsidiary firm, there are reasons to believe that knowledge about MNCs in the field of international business may inform the current study. Specifically, the theoretical and empirical findings on the scope and control resulting from a direct investment may be, to a certain degree, similar to that which may occur through the more indirect influence of foreign limited partners in the venture capital industry.

Interestingly, the definition of a direct investment as provided by the OECD and the IMF for statistical and comparative purposes no longer contains the specific element of control in the definition, while the inter-

national business and economics literature retains this critical distinction. In the official OECD/IMF definition, the key phrase is that of a *lasting interest*; this lasting interest is characterised by a significant degree of influence. The definition, in its entirety, is as follows:

Direct investment is a category of international investment made by a resident entity in one economy (direct investor) with the objective of establishing a lasting interest in an enterprise resident in an economy other than that of the investor (direct investment enterprise). "Lasting interest" implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the direct investment enterprise. Direct investment involves both the initial transaction between the two entities and all subsequent capital transactions between them and among affiliated enterprises, both incorporated and unincorporated. (OECD and IMF, 2004)

By emphasising *lasting interest*, this definition does, indeed, seem to open up for the potentially 'in-between' location of international venture capital investments in the FDI-portfolio investment classification scheme.

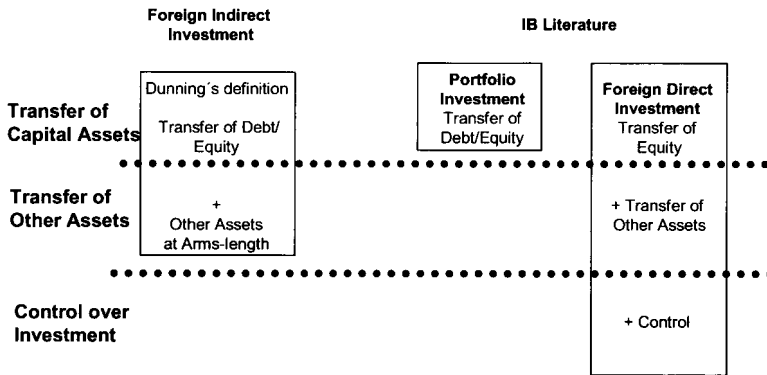


Figure 2.2: Foreign Indirect Investment, Portfolio, and FDI

Control and Influence

When applied to the forms of cross border resource flows, the term control is most commonly used in a self-explanatory manner, and quite often is a synonym for *controlling interest*. However, control theory in management has a long history. One of the earliest definitions by Davis (1928) was "the instruction and guidance of the organisation and the direction and regulation of its activities" (p. 82). In the international business (IB) literature, control generally means having authority over operational and strategic decision making (Hulburt and Brandt, 1980; Negandhi and Baliga, 1979; Hill et al., 1990), and is, therefore, associated with deliberate actions. Similarly, in a political economy perspective, control means the right to make strategic decisions in contingencies not explicitly covered by contractual arrangements (Grossman and Hart, 1986). In this context, strategic decisions refer to decisions that have major implications for the cash flows generated by the firm (Berglöf, 1991). In organisational theory¹², control is generally defined as a process - for instance, "that process in which a person (or group of persons or organisation of persons) determines i.e., intentionally affects, what another person (or group, or organisation) will do" (Marcus and Cafagna, 1965). Influence, on the other hand, may be intentional or accidental, and can stem from multiple sources (Grimes, 1978). The bases of influence are resources (including financial, positional, or personal characteristics) either owned or controlled, and used by the influencer through persuasion, inducement, or constrains (Gamson, 1968) to affect the influencee.

Cross-border influence is not limited to equity investment arrangements, yet is recognised as stemming from contractual agreements with firms that specify the right to exercise financial or operational control. In a contractual agreement based situation, the influence is similar to that of control. The difference is that, in this situation, the control is seen as partial, specified and time limited (Dunning, 1993).

While the concepts of control and influence can be seen in this way as distinct, an accepted and comprehensive conceptualisation of control, and that which is used in the remainder of this thesis, can be defined as:

¹² The 1960s were a period where the concept of control in organisations underwent a resurgence and clarification attempts led by Tannenbaum and Kahn (1962).

the process by which one entity influences, to varying degrees, the behaviour and output of another entity (Ouchi, 1979) through the use of power, authority (Etzioni, 1965) and a wide range of bureaucratic, cultural and informal mechanisms (Baliga and Jaeger 1984).

Included in this definition are some additional concepts that are derived from the FDI specific work on headquarter and subsidiary interaction and that provide a useful framework to be applied in this thesis. In the FDI literature, two objects of control are specified - output control and behaviour control; moreover, there are two types of control (Jaegar, 1983): bureaucratic control and cultural control. Output control has a focus on the monitoring of ends or the results of performance; whereas, behavioural control involves the imposition of specific decisions and actions at specific points in time. It is noted that all large multinational firms use some combination of behaviour and output control, but that there are differences in the pattern or the relative degree of one form of control versus the other (Egelhoff, 1984).

Bureaucratic control is the classical view of control stemming from Weber's (1946) bureaucratic model of organisation: where control relies on the explicit formal rules and regulations. The utilization of a limited and explicit set of codified rules delineates desired behaviour (Child, 1973). In the bureaucratic model, authority and power is exercised through control over resources (Etzioni, 1965). With cultural control, the emphasis is on informal and implicit mechanisms for control (Jaegar, 1983; Kale and Barnes, 1992; Milliman et al., 1991). According to Keesing (1974, p. 74), the ideational conceptualisation of culture is the "individual's theory of what his fellows know, believe and mean, his theory of the code being followed, the game being played". In this view, there are recipes for members' behaviour; and he maintains that control in a pure cultural control system occurs through interpersonal interactions. Performance and compliance with the culture are observed during the course of interpersonal interactions. In Table 2.2 the within-company mechanisms for these control types is presented, as conceived by Baliga and Jaeger (1984).

Object of Control	Type of Control	
	Pure Bureaucratic/Formalised Control	Pure Cultural Control
Output	<i>Formal Performance Reports</i>	<i>Shared Norms of Performance</i>
Behaviour	<i>Company Manuals</i>	<i>Shared Philosophy of Management</i>

Baliga and Jaeger (1984) p.28

The Extent of Control and Influence

There are few detailed descriptions in the extant literature on what is specifically controlled or influenced in the context of FDI. In the general IB field, it is the strategy of the firm that is controlled (Hill et al. 1990). The scope of strategy or a strategic decision can have quite a broad range of interpretation. It can include decisions whether to continue or discontinue an organisation, organisational structure, asset allocation, and the hiring and firing of top management (Berglöf, 1991; Fama and Jensen, 1983).

Following Dunning's (1970) observations, control also involves a transfer of technology broadly including managerial and organizational practices and skills. When control is linked to cross-border organisational activities through FDI, the links are clear to the study of cross-cultural management. Since the 1980s, the development of structured frameworks of the influence of national culture on management (Hofstede, 1980; Trompenaars, 1993) has fuelled an increased interest in the relevance of national cultures and institutions on the development of management methods, strategies, and structures. The research stemming from both the institutional (c.f., Whitley, 1994) and cultural perspectives (c.f., Hofstede, 1980) has led to the expectation that management practices introduced by companies of different nationalities would be distinctive (Child et al., 2000). These findings have had implications in the study of inward foreign direct investment, one of which is the finding that through mechanisms of control and influence, FDI stimulates the adoption of management practices consistent with those of the parent company (Selmer and de Leon, 1996; Jaegar, 1983; Edström and Galbraith, 1977).

Early empirical work by Dunning (1958), which looks specifically

at the adoption of US management practices in UK subsidiaries, suggested that the main mechanism leading to adoption of parent company practices was the 100 per cent ownership and the imbalanced influence between the strong headquarters and the weaker power base of local management.

The intentionality of cultural control is dealt with differently by differing authors. Some see the use of cultural control as a part of a deliberate strategy by the organisation, and prescribe normative steps to be taken in order to enhance the cultural alignment and strength of control. Other authors see the development of cultural similarities within an organisation not as an intentional control mechanism, but as the outcome of a process that occurs inadvertently, and one that would occur in the absence of any direct measures in order to facilitate the cultural adoption.

Despite the focus on the two polar forms of international capital flows - FDI and portfolio - there is a spectrum of investment forms not only distinguished by ownership (equity or non-equity investments), but also by the degree of control. The primary conceptualisation of control as an absolute, dichotomous variable representing exercise of total control or no control at all (in line with Dunning's two-part classification of investment flows) has been furthered in later conceptualisations of the idea of control as a continuous variable. Higher ownership levels are *prima facie* associated with tighter control, and there are also different levels of control within the non-equity investment category in the aligning of interests through contractual collaborations. Often approached in the international business literature as choices of entry mode¹³, the form of arm's

13 Entry mode choices include;

Foreign Securities (Arm's length): Purchase of traded shares in foreign companies.

Export (Arm's length): Sales to customers (distributors or end users) located outside the firm's home country.

Licensing (Arm's length): A company grants the rights to intangible property to another company

Alliance (Arm's length, or semi-FDI): A collaborative arrangement between two or more organizations. An equity alliance is a collaborative arrangement in which at least one of the collaborating partners takes an ownership position in the other.

Consortium (FDI): Similar to a joint venture arrangement; however, a consortium involves more than two organizations.

Joint venture (FDI): An ownership arrangement where more than one organization agrees to work together and create a separate jointly owned company to promote their mutual interests.

Wholly owned (FDI): The entering of international markets through the ownership and control of assets, either by building new facilities or buying existing facilities.

length arrangement (foreign security purchase, export, licensing, and some alliance forms) and, alternatively, equity arrangement (equity alliances, consortium, joint venture, and ownership stakes up to 100 per cent) can both be viewed as falling on a continuum of degree of control: from very little, to tight control by a focal organisation (see Figure 2.1). How this continuum operates is not clearly specified in the literature; however, it is generally interpreted as meaning that there is looser or tighter control across the full range of elements of an organisation. In other words, in a joint venture there is less control over the firm strategy than in a fully owned subsidiary; there is also less control over the management level and operational decisions, as well as in the strength of cultural alignment - yet all of these areas may be potentially controlled, just to a lesser extent. Within the international joint venture literature the locus of decision-making perspective - both the dichotomous and the continuous variants - has been criticised for its assumption that the parent firms' attempt to have control over everything, rather than targeting specific activities or processes perceived as crucial for achievement of the parent's strategic objectives. Shaan (1983) demonstrated this in the case of joint ventures firms tending to seek selective control or control over specific 'strategically important activities', rather than over the whole joint venture. This perspective results in case-specific assessments of what is considered strategically important.

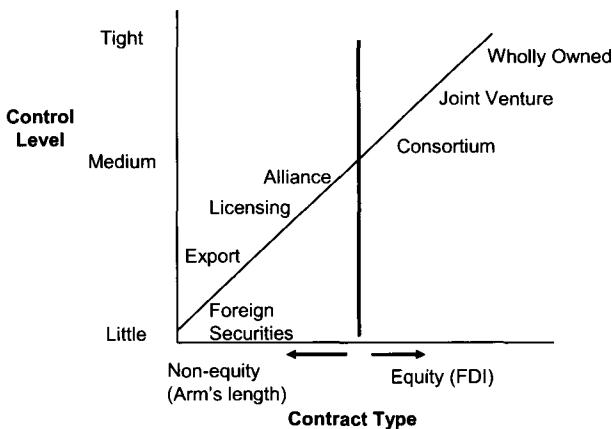


Figure 2.3: Contract type and control level continuum

While the international business literature has, thus, highlighted the effects of national origin and culture of internationally active firms, it is worth noting that within the mainstream body of venture capital research there are two dominant assumptions that have distanced venture capital research from ongoing discussions in the international business literature. First, venture capitalist fundraising is most similar to a portfolio investment; therefore, there is no control element to provide influence. Secondly, venture capital decision making is a rational process and has, therefore, been generally studied through the multiple definitions that decision researchers have applied to the term rationality. One of the primary views of rationality in the literature has been strategic rationality, which is demonstrated by selecting means that efficiently lead to a chosen goal (Hedborg, 1996). This particular perspective generally assumes neutrality in terms of national origin and cultures of the actors involved. Despite having made headway into areas of international business and organisation research, institutional forces and, in particular, cultural influences remain on the fringe in the area of venture capital.

Summary

This chapter introduced and reviewed the two primary literature fields that are central to this research. First, the empirical field of venture capital was presented, identifying existing understandings of variation in the industry, and identifying the research gap pertaining to the differing contexts of limited partners and the venture capital firms. Secondly, selected literature in international capital flows was considered, and current conceptualisations of investment type and control were outlined.

In the following chapter, these two literature strands are interwoven to develop a conceptual model focused on the influence of foreign limited partners on local venture capital firms.

CHAPTER 3

A CONCEPTUAL MODEL OF DOMESTIC VERSUS INTERNATIONAL LIMITED PARTNERS

This chapter develops a conceptual model linking the venture capital funding sources to variation in the behaviour and attitudes of industry participants.

The model is based on those propositions by venture capital researchers that suggest there is not only one best way of investing in and managing portfolio firms; rather, that endogenous industry variables of perceptions (Sapienza et al., 1996), preferences (Elango et al., 1995), and cognitive and normative institutions (Bruton and Ahlström 2003) are linked to venture capital selection strategy and management behaviour. Adding the influence of the limited partners on the venture capitalist, the developed hypotheses focus on the overlooked impact that venture capital fundraising patterns can have on the dominant characteristics of funded firms, and how these firms are managed.

The first section of the chapter outlines the background to the model, including the developments of the venture capital industry, and the Swedish venture capital industry in particular. The following section then specifies some of the most important mechanisms of influence and control when limited partners, some of foreign origin, supply funds to local venture capital firms. A set of five hypotheses delineates in a more detailed way how foreign limited partners may influence the venture capital firms in three important respects: 1) investment strategy, 2) management activities, and 3) management attitudes. Given the centrality of this terminology, it is important to be clear on what is meant by each of these.

1) *Investment Strategy*: Investment strategy is the decision made by a venture capitalist on the type of firms to which they will allocate the

venture capital fund. The investment strategy in this research is limited to three factors: the breadth of scope of investment or whether the funds will be invested in one sector or in multiple sectors; the stage of the investment target or if funds should be allocated to early stage or late stage ventures - or some variance of such; and, the geographical scope of investments or in what geographical region the venture capitalist will invest.

2) *Management Activities*: Management activities refer to the type of value-added activities that the venture capital undertakes within, and for, their portfolio firms, and what they consider to be their main value-added role as investors.

3) *Management Attitudes*: Management attitude is used as a broad term, referring to a range of opinions, beliefs, and preferences of the venture capitalist toward their portfolio firms, entrepreneurs, and to their industry. An attitude is defined as the evaluation of a concept or an object in terms of judging whether it is good or bad in general. While values are generally seen as potentially determining attitudes (Ohlson and Zanna, 1993), this is not an absolute linkage. Attitudes are considered to be more easily changeable over time than values are (Hofstede, 1985).

Haemmig (2003) suggested that the state of research on venture capital does not currently invite the application of one general theory. As a result, and also because the hypotheses span a broad set of issues, the theoretical assumptions in the hypotheses development draw upon a number of theories, as well as some more speculative sources, for subsequent empirical testing.

The Generic Process of Venture Capital

Venture capitalists generally operate with specific closed-end funds (Figure 3.1). These funds can be the private funds of the partners who are investing on their own behalf, but more commonly are raised from one or several external sources. When a venture firm is new and the general investment partners are unproven in their investment ability, funds are most often obtained from a single, local source. The structure of the funds requires that this initial fund investment be returned at the end of the

contracted period, and for the venture capital fund to continue, a new fund round is required. After three to five years, the venture firm has a track record and the first fund is nearing repayment date. At this stage, the venture firm is likely to conduct a more open fundraising round from a wider group of investors, sometimes including foreign limited partners. Competing against other venture capital actors, the firm must sell their strategy, team ability, and general capacity in order to obtain the required funds. Established venture capital firms may simultaneously manage several pools of capital, with each of these pools of capital structured as a separate limited partnership (Jeng and Well, 2000).

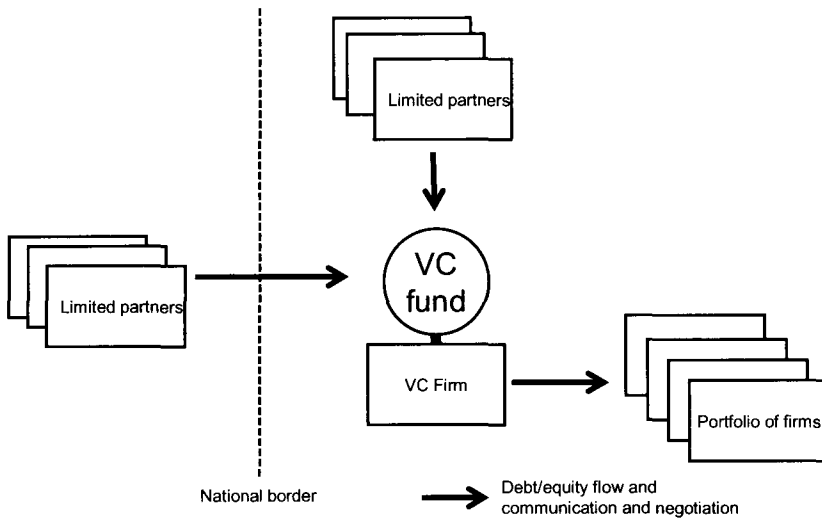


Figure 3.1: Generic structure of the venture capital funding processes

While much research has focused on the relationship between the venture capital firm and the portfolio firm, much less is known about the limited partner and general partner relationship. Investors invest in venture capital funds rather than directly in individual firms because the venture capital firm serves as the producer of information, lowering the cost that investors would incur if they invested directly (Chan et al., 1983;

Sahlman, 1990; Fried and Hisrich, 1994). The lower information gathering costs originate from economies of scale when gathering information on behalf of a number of investors, economies of scope from a network of referral sources and service providers, and from a learning curve; whereby, information produced for one proposal is useful for subsequent proposals (Fried and Hisrich, 1994).

Fried and Hisrich (1989) conducted a unique qualitative study from the institutional investor's perspective (limited partner) on the allocation of institutional funds to venture capital firms. The results provide evidence that the limited investors actively select the venture capital firms, and suggest that the selection is based upon the people, teamwork, performance, discipline, and strategy of the venture capital firm. More recently, a qualitative and exploratory study by Barnes and Menzies (2005) showed that limited partners use a structured approach to identify and select venture capital funds, and that this process closely resembles the process used by venture capital firms when allocating their venture funds. A notable finding from this work was that the limited partners emphasise the informal relationship with venture capitalists, and that this relationship is a key mechanism for stabilising the limited partner - venture capitalist relationship.

In addition, intermediaries, or so-called gatekeepers, play an important channelling role in their capacity as advisers to pension fund managers and other institutional money managers. The intermediaries specialise in assessing venture capital firms for fund allocation. In the United States, approximately one-fifth of all new funds raised come through an investment advisor (Gompers and Lerner, 2002). Particularly, funds originating in the United States may be rigorously allocated based on predetermined selection criteria. It is known circumstantially that many of the larger funds have strong conceptions of what is required by a venture capital firm, and have developed strong institutionalised routines for assessing the firm structure, firm routines, value-added management approach, as well as the performance of general partners.

During a fundraising round, venture capital firms negotiate personally with the potential limited partners or with the intermediaries, and are required not only to meet the due diligence requirements, but also to sell their team's own investment selection and value-added capabilities based upon their skills and past performance. The requirements for fund

allocation may, thereby, lead to adjustments and changes to the fund strategy and portfolio management approach as a precondition to investment. This occurs as the process of interaction with the limited partners provides direct knowledge of what is considered a legitimate strategy, management approach and structure of the firm, and what are the requirements for the venture firm should the funds be allocated. Once the funds are secured, complex rules and fund covenants (written agreements) restrict the further actions of the venture capital firm to the terms agreed upon. The covenants are designed to reduce future asymmetries of information and are, in some regard, a self-imposed control mechanism that the venture capital firms use to ensure their fund providers of competent post-investment behaviour (Osnabrugge and Robinson, 2001). The venture capitalist becomes locked into the terms of the fund contract for the duration of the fund.

The pre-investment process and the negotiating of terms is of considerable weight as the limited partners are not able to directly influence the actions of the venture capital firm once the funds have been allocated, and contracts are rarely renegotiated (Gompers and Lerner, 2001). The investors in a limited partnership must avoid direct involvement in the activities of the fund if they are to maintain limited liability; in this way, the use of covenants and restrictions in the contract are 'critical in determining the general partners behaviour' (Gompers and Lerner, 1996, p. 464). In their work on private equity covenants, Gompers and Lerner (1996) have found that the features of the fund - for example, the contractual terms and the management fees - have long lasting effects on the behaviour of the venture capitalists.

While very few studies have systematically focused on the processes of venture capital firm selection by limited partners, and the process of raising capital and structuring funds is complex and little understood outside of the industry, the study of 21 fund-of-fund investment management firms by Barnes and Menzies (2005), provides some insight. They found that limited partners use a structured approach to identify and select venture capital funds that closely mirrors the processes used by the venture capitalists themselves - this includes origination, screening and evaluation. The process of screening was found to involve multiple subcategories that proceed through more complex and detailed criteria. One of the important findings was that a critical element of the lim-

ited partner's assessment determines whether the venture capital firm had executed the strategy they had promised in previous funds. The consistency of the venture firm weighed heavily upon the decision process.

Not all venture capital firms operate as a partnership, although this is recognised as the 'classical' structure¹⁴, and is the dominant structure in the United States. In Europe, however, certain legal restraints mean that many of the venture capital firms are structured as limited investment companies - or they are listed. In Sweden, 34 percent of firms resemble the classic venture capital structure; whereas, the remaining firms take a variety of alternative forms (see Appendix 3 for details). For a number of these companies, the process of fundraising is the same as it is with a partnership structure: just the liability of the investment managers is protected through the company structure; for others, the company structure is a result of the firm being a 'captive', or an investment vehicle for a specific corporation. Others, usually only the largest firms that are targeted toward buy-out investments, operate with an evergreen structure and are listed on the stock exchange.

Investments by Foreign Limited Partners

With increasingly interlinked international financial markets, fundraising does not only occur within national boundaries, but the involvement of foreign limited partners in the local venture capital industry has, to date, been considered purely from an economic perspective. While the added considerations of cross-border transactions have been long studied in the field of international business, the flow of capital is generally considered a neutral phenomenon as compared to the well-established technology, knowledge, and management issues of foreign direct investments. Yet, it appears reasonable to assume that some preferences are communicated and possibly imposed on the venture capital firm to the extent that limited partners are actively involved in negotiations with venture capital firms also in cross-border transactions. In cross-border transactions, these preferences may be culturally tainted and reflect a number of additional idiosyncratic considerations. Through communication and negotiation

¹⁴ The first limited partnership can be traced back to 1958 in the US, and was modelled on the template of other limited partnerships that were popular at the time, such as those for real estate projects and oil exploration (Gompers and Lerner, 2001)

with the venture capital firm, the foreign limited partner may, thus, influence a range of behaviours, including those of investment strategy and management of portfolio firms, which will be dealt with in more detail in the following sections.

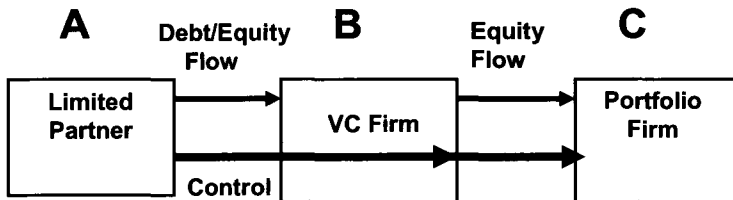


Figure 3.2: Limited Partner Control in the Venture Capital Process

Communication and Negotiation

While the notions of control and influence can be used to explain why there would be an alignment or adaption to a specific mode of action or behaviour, there are differing theoretical bases to what may be happening at the micro level, or how control operates. There are theories of choice, selection, and of learning, with some differences in the level of actor participation in the process. A short overview of possible mechanisms of control that the limited partner may have over the venture capitalist appears in the following section.

Venture Capitalist Choice: From a rationalist perspective (Checkel, 2001), the answer to why the venture capitalist may be controlled or influenced by the limited partners lies in consequentialist choice mechanisms where compliance is a process leading to the alteration of strategies and behaviour. The ontology of rational choice emphasises coercion, the calculation of benefits (material or social), or the existence of sanctions. "Faced with (material) brute facts, agents make compliance choices on the basis of cost/benefit calculations" (Checkel, 2001, p. 556). In this view, norms of the investing entity are not internalised; they merely constrain behaviour. The venture capitalist is somehow informed and understands what a for-

eign limited partner is looking for, in terms of strategy and management approach, will weigh the benefits of adopting this behaviour (raising funds), and will comply.

Venture Capitalist Learning: The alternative perspective is based upon preference change through learning, either 'simple' learning - where actors acquire new information as a result of interaction (and use this information to alter strategies, but not preferences) - or 'complex' learning, leading to an alteration of preferences. The preference change may also be a result of "learning by doing", in that once the strategies are altered and implemented, the preferences subsequently become aligned and embedded (Davis and Luthans, 1980). To a large extent, this learning would take place when the venture capital firm gets into close contact and negotiations with limited partners during the early stages of new fundraising activities. Constructivist work on complex learning emphasises the work done in social psychology and communications research on persuasion and argumentation (Chenkel, 2001). Specifically, argumentative persuasion is a social process of interaction that involves changing attitudes about cause and effect in the absence of overt coercion. It is an activity or process in which a communicator attempts to induce a change in the belief, attitude, or behaviour of another person through the transmission of a message (Perloff, 1993). Given that it is unlikely the communication by the limited partner is overtly coercive, this explanation works quite well.

Venture Capitalist Modelling - Social Learning Theory: Another plausible mechanism of control and influence is provided by social learning theory, which emphasizes that learning can take place vicariously as a result of observing the effects of other people's behaviour. Representing a mechanism of indirect influence rather than overt control, research by Bandura (1969; 1976; 1977) demonstrates how people reproduce the actions, attitudes, and even the emotional responses exhibited by models. The process of modelling involves sub-processes that include attention, retention, reproduction, and reinforcement. The process may be such that venture capitalists receiving foreign funding have modelled their strategy, activities, and attitudes on venture capital firms that had already received foreign funding either in the local context or elsewhere. The venture capital-

ists notice, and attend to other firms that successfully raise funds, retain and implement the behaviours that they can observe and receive reinforcement through the raising of funds¹⁵.

The mechanisms of choice, learning and modelling are not mutually exclusive, and may be operating at multiple levels. Following the reasoning of these mechanisms it is theoretically possible that the venture capital firm may be controlled or influenced by the limited partners through direct negotiation and communication, or, by modelling other venture capital actors.

Strategic Control - Investment Strategy

A central theme in strategic management research is why firms follow strategies of greater or lesser industry diversity and/or geographical scope; decisions regarding the product-market focus are a key component of a firm strategy (Hofer and Schedel, 1978). Noting an early lack of studies on this central issue in venture capital firm strategies, Gupta and Sapienza (1992) used a sample of US venture firms to determine preferences for these two strategic decisions. They found that the size of the venture capital firm was important (larger firms preferred greater diversity and broader geographic scope of investments), as was the corporate versus non-corporate nature of the venture capital firm (corporate preferred less diversity and broader geographical scope). Additionally, it was also found that the strategic preferences were interlinked, with early-stage focused venture capital firms preferring less industry diversity and narrower geographic scope.

Empirical studies on the relationship between the type of funds and venture capital investment activity have found connections between the type of private investor and the venture capital firm's strategic orien-

¹⁵ Similar mechanisms have been put forward in the network governance approach. As was stated in the first chapter of this thesis, the affiliation between the limited partner and the venture capitalist bears similarities to a network relationship whereby some of the coordination is characterised by an informal social system (Powell, 1990). The specific social mechanisms of reputation, collective sanctions, and macro-culture (Jones et al., 1997) are also considered to influence the exchange behaviour.

tation, in terms of stage, sector, and geographical focus. In their four country study, Mayer et al. (2005) noted that the type of private partner - for example, bank or pension fund - was related to the strategic focus of the venture capital firms in which they had invested. While it was not the main focus of the study, an interesting finding was that the relationship between the source of finance and venture capital activity differed across countries. For example, the tendency of individual and corporate-backed venture capital firms to invest in early stage activities was noted in Germany and Japan, yet not in Israel and the United Kingdom. As the authors pointed out, this speaks against assumptions of fully integrated or neutral financial markets.

Given that there is evidence to suggest that source of funds is linked to strategic orientation of the venture capital firm and the fact that there are noted differences between national contexts, it is reasonable to assume that, if limited partners are from a different national context than the venture capital firm, then the strategic orientation of the two may not be aligned. While such differences may prohibit cross-border transactions, it is also possible that the communication and negotiations that are part of setting up individual funds will introduce pressures to align the behaviour of venture capital firms with investor preferences. That is to say that the geographical source of funds may influence the strategic orientation of the venture capital firm, specifically the preferences in strategic selection of portfolio firms, based upon sector, stage, and geography. This line of thought provides a general foundation for the proposition that the geographical source of funds, or more specifically the origin of limited investors, is related to the venture capital firm's strategic orientation. While it is not immediately evident in what way the source of funds would matter, some preliminary expectations can be put forward for the main strategic dimensions of the venture capitalists investment selection; that is to say, the sector specialisation, stage preferences, and geographical location in the venture capital firm's portfolio.

While exploring the multitude of reasons why limited partners choose to expand their investments beyond their own national borders is outside the scope of this study, it is generally thought that the most consistent reason for this is diversification of their portfolio (Simpson, 2000). However, it can be assumed that investors will choose to enter a region that has the potential for good returns based upon historic performance,

technology, entrepreneurial activity, and other reasons. In an international context where investment opportunities are many and diverse, and it is difficult to rely only on personal detailed knowledge about good investments. General knowledge about particularly strong growth sectors and industries in individual countries are likely to guide the search for investment opportunities. In Sweden, the ability to attract international capital is attributed to a strong research and development environment, and the further recent successful shift to a more technology-based economy (Baygan, 2003).

The understandings of country-specific specialisations will be filtered, and the potential investor will have incomplete knowledge of the full spectrum of potential investment targets in the foreign location. As a result, it is likely that investors will seek to invest in a specific dominant sector or technology - for example, wireless technology - and be less interested in the secondary sectors and technologies for which the country has a lower international profile. For example, the SVCA (2001) reports a limited number of responses among foreign investors who had entered the market in various ways when asked: *What prompted you to establish in Sweden?* The responses illustrated sector-specific perceptions - for example, "Swedish dynamism within the telecom and internet sectors" (Innovacom), and "Sweden is a strong competence centre in the telecom field" (Danske eVentures). The equivalent in Asia would be the dominance of *consumer electronics*, as reported by analysts in business media (Financial Times, 250407).

The investment in a specific venture fund is generally also part of the limited partner's portfolio and, as their risk is diversified at the level of their own portfolio, there is no gain accruing to them from the venture capital firm having a diversification strategy. The combined effect is that foreign limited partners will be looking for a narrow range of investment opportunities, reflecting a limited set of sectors or industries in which the country of the venture capital firm excels. For these two reasons; the filtered information of the full range of investment opportunities; and the diversification of the investments at the level of the limited partners portfolio, it is suggested that foreign limited partners are more likely than local limited partners to invest in specialised venture capital firms. Therefore:

Hypothesis 1: Venture capital firms with foreign limited partners will display higher degrees of investment strategy specialisation, and reduced sector diversity of their portfolio.

Similarly, limited partners who are investing from a distance will be interested in investing in sectors and technologies of which they have some knowledge, and for which they can more easily assess the potential themselves. Sectors and technologies that are more likely to come to the investor's attention are those that have passed the prototype stage and that have some degree of proven benefit. This would reduce the foreign investor's interest in seed-stage investments and there will be a greater preference for venture capital firms that focus on later stage portfolio firms (those that are in the later expansion stage of commercialisation).

Evidence from the Israeli venture capital industry suggests that foreign funds enter that specific market with an interest in firms at a later stage (FT, 250407). While it is difficult to distinguish between the impact of fund size and the impact of foreignness on the preference for later stage investments, it can also be expected that these are separate predictors. Hence:

Hypothesis 2: Venture capital firms with foreign limited partners will display a greater focus on later stage portfolio firms than venture capital firms without foreign limited partners.

When limited partners are selecting geographical areas for investment, it is unlikely that the focus is only on a specific country; more probable is that the focus is upon a group of countries perceived to be clustered by shared characteristics such as language, proximity, and cultural similarities (for example, *Latin European, Asian, Germanic* or *Nordic*). To economise on search costs, the preference will be for venture capital firms whose strategic focus builds upon competence and access to deal flows within this region - not narrowly confined to a small geographical region where the number of potential investments would be limited and require the limited partners to engage in multiple fund investments; nor very wide, as the local knowledge is one of the main reasons why limited partners would invest via a venture capital firm rather than invest directly.

Following the large influx of foreign capital in 2000, the Swedish venture capital association specifically asked some of the larger international venture capital firms why they were interested in Sweden. The response was found to be connected to Sweden's position in the Nordic region. Two examples of such answers included: "The Nordic region is full of talented people, with innovative ideas" (Intel Capital, SVCA, 2001), and "It became quite natural now for us to expand to the Nordic region; there is a natural foothold and talent base in the wireless area across the Nordic region, with Stockholm as its financial hub" (Innovacom, SVCA, 2001). Foreign limited partners are, thus, expected to be interested in investing in venture capital firms that can take advantage of the synergies and deal flow in a specific region.

Hypothesis 3: Venture capital firms with foreign limited partners will display an investment focus on a multiple country geographical region.

To summarise, the influence from foreign limited partners on local venture capital firms can be expected in three areas of investment strategy: sector specialisation, stage, and geographical region.

Management of Portfolio Firms: Activities and Roles

The task of venture capitalists is traditionally not only the allocation of investment funds in selected ventures. Importantly, the value-added activities are the main contribution of the general partners, and it is precisely this that distinguishes venture capital from other forms of growth financing.

As discussed in chapter 2, prior research has focused extensively upon both the extent of venture capital involvement in portfolio firms and the type of value-added roles provided. The venture firm structures the relationship with the portfolio firm and monitors its ongoing activities, as well as performs certain roles. In the United States, the institutionalisation of practices has been noted. Fried and Hisrich (1994) highlighted the operational similarities between venture capitalists, referring to the

industry's dominant logic. MacMillan et al. (1989) showed that venture capitalists have common values about what they perceive their roles to be in their interactions with funded firms: a sounding board, business advisor and confidante, as well as a financier. Other classifications include aspects such as management assistance, monitoring and control, and reputational capital (Black and Gilson, 1998).

With evidence of an institutionalised industry dominant logic (Suchman, 1995), it is also recognised that not all venture capitalists behave in the same way (Sapienza, 1992; Sapienza et al, 1996, Macmillan and Khoylian, 1989). These differences are generally attributed to the stages of development of the recipient venture (Ruhnka and Young, 1987); or, in the *strategic choice stream* (Elango et al., 1995; Robinson, 1987) on variables such as perceived uncertainty and the perceived business risk (Sapienza, 1994; Sapienza et al., 1996). Where the venture capital literature in the United States focused on the similarities between venture capitalists, the application of the US model elsewhere supports the view that the process activity and role of venture capitalists varies across contexts (Harrison and Mason, 1992; Van Wakeren et al., 1989; Ahdekivi, 1990; Fredriksen et al., 1990).

Black and Gilson (1998) attribute differences to structural and normative differences between the United States and elsewhere, specifically that the market for IPOs and the norm of rapid exit creates a vibrant industry that motivates greater involvement and the development of expertise. It is also noted that there are specific characteristics of American business, such as a focus on the individual and the centrality of the arm's-length agency relationship: aspects that are different in other national venture capital industries (Bruton et al., 1999).

When negotiating for funds with limited partners, venture capitalists can be expected to be assessed not only on their ability to select investment objects, but also on their actions of managing and adding value to the investment firms. The venture capitalists must demonstrate that they would make more money than the limited partners would by investing directly (Barnes and Menzies, 2005). The communication and negotiations between the limited partners and the venture capitalists conveys the management activities that are legitimate and congruent with the role of a venture capitalist as perceived by the limited partners. The activities, therefore, come to reflect the limited partners' priorities and beliefs of

good management, requiring a management emphasis on the specific activities that are believed to provide the most benefit to the success and the value development of the portfolio firm.

Additionally, the explicit rules of fund allocation provide constraints and directions for the venture capitalists' activities. These include the length of the fund, minimum investment size, and specific reporting requirements. These rules are developed from the limited partners' larger understanding of the role of the venture capitalist. Just as communication and negotiations convey limited partners' preferred views on strategy, they also transfer preferences concerning the management of portfolio firms, or how the venture capitalists will behave as an investment intermediary on behalf of the limited partners.

When limited partners originate in a different national context to the venture capital firm, the limited partners' ideal conception of management activities, behaviour, and enacted role of the venture capital firm can be predicted to differ from what would be reflective of the local context in which the firm operates. The following hypothesis is considered with respect to the management of portfolio firms:

Hypothesis 4: Venture capital firms with foreign limited partners will display management activities that are different to management activities of venture capital firms without foreign limited partners.

Management Attitudes

Moreover, the limited partners' conscious or unintentional imposition of specific practices, role enactment, and behaviour may lead further to changes in the attitudes of venture capitalists. It has been long understood that certain management attitudes are culturally sensitive, and differ between national cultural settings (Kelley and Reeser, 1973; Kelley et al., 1987). Although the extent of the influence and the origins and mechanisms of cultural transmission are debated among cultural theorists, there is strong and persistent evidence that management attitudes differ across countries. Additionally, it has been found that within industries, there are dominant recipes for success (Spender, 1989) or industry

cultures (Phillips, 1994). Bruton and Ahlström (2003) identified cognitive institutions in their study of venture capital in China, comparing them to those held in the Western model of venture capital. It was found that the Chinese cognitive institutions led to identifiable differences in the structuring of relationships and the monitoring of funded firms, creating problems with the implementation of value-added activities provided to the firms. Specifically, advice needed to be provided in a more diplomatic and broad-scope manner in order to be effective.

In the cognitive perspective of culture (e.g. Shein, 1980), culture is a set of assumptions commonly held by a group of people. These assumptions serve as guides to acceptable perceptions, thought, feeling, and behaviour (Phillips, 1994). In the study of MNC's, the imposition of rules, routines, and behaviours has been identified as one method of inducing changes in culture at the organizational level. While basic assumptions and orientations may be dominant, there is evidence to show that norms, beliefs, and attitudes are more changeable (c.f. Edstrom and Galbraith, 1977; Jaegar, 1983; Hofstede, 1985; Berry, 1990). Hence, the behaviour that is required by the limited partners can act as a mechanism for change of management attitudes. If this holds true, with investment by foreign limited partners, the management attitudes of the venture capitalists will become congruent with the practices that are adopted. Even in the absence of mechanisms of change, it can be expected that there will be equivalence of venture capitalists' attitudes and beliefs to the preferences of the limited partners. From this perspective, limited partners assess not only the expressed strategy of the venture firm and the methods of post investment management, but they also select firms based upon their *reputation* and perceived attitude (Barnes and Menzies, 1995). While there is little empirical data from the venture capital literature on the congruence of attitudes between limited partners and the venture capital firm, there is sufficient general theoretical support for the following speculative hypothesis:

Hypothesis 5: Venture capital firms with foreign limited partners will display management attitudes that are different to management attitudes in the absence of foreign limited partners.

To summarise, the influence from limited partners on venture capital firm management can be expected in two ways: first, in the value-added activities undertaken by the venture capitalist; secondly, in the attitudes of the venture capitalists (see figure 3.3).

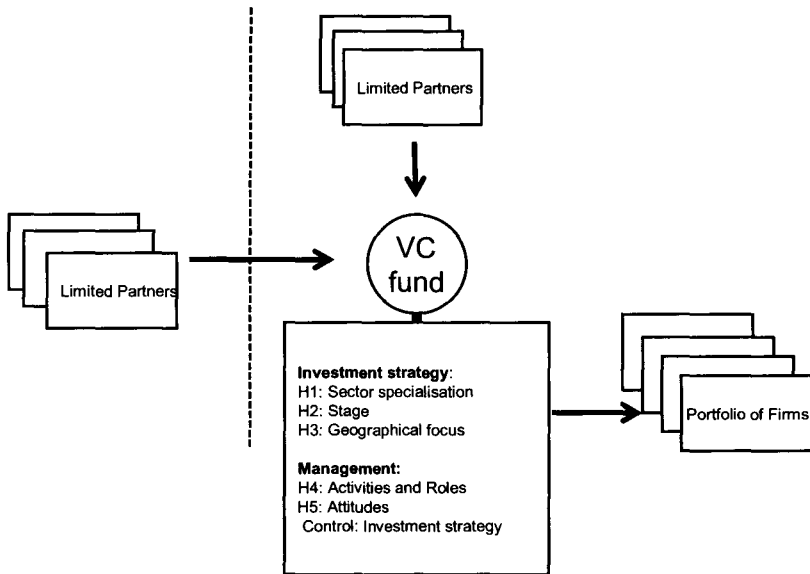


Figure 3.3: Strategic Control and Influence on Venture Capital Investment Strategy and Management.

A Note on the Research Approach and Non-Directional Hypotheses

Typically, research approaches fall into one of two overarching approaches: deductive or inductive. Deductive research begins with known theory and tests it, usually by attempting to provide evidence for or against a pre-specified hypothesis. Inductive research begins by making observations, usually in order to develop a new hypothesis or contribute to new theory. The research question of this thesis did not clearly lend itself to either approach. The lack of a cohesive theory from which to

work spoke against the deductive approach, yet the large body of related literature on the venture capital phenomenon, and the extensive interdisciplinary body of theory within the field of international business (of which the international aspects of venture capital surely belongs), renders a purely inductive approach redundant. It was determined that a pragmatic approach to the method choice would be taken, given that most research is not an outcome of purely one or the other, and the methodological reflections are sometimes not as critical as the "what do we want to find out" question (Weber, 1949). It was decided that, on balance, the deductive method was the most appropriate; however, this decision involved certain inevitable constraints.

A standard approach to hypothesis development within a deductive approach is to develop specific predictions of direction. In the investment strategy hypotheses, there were sufficient grounds to develop directional hypotheses; yet in the management activities and management attitude hypotheses, the theoretical basis is less affirmative. There are a multitude of studies that could be used as a basis for detailed predictions on each activity and attitude of the venture capitalist firm based upon an analysis of the country of origin of the limited partners (e.g. the findings of: Hofstede, 1985; Trompenaars, 1993; Lane et al., 2002), yet most cultural and institutional comparative dimensions are not developed to be applied at the industry level. While studies deriving cultural dimensions are considered useful for the interpretation of results, they are not believed to be equally applicable for prediction in the venture capital industry. In particular, hypothesis 5 pertaining to management attitudes should be seen as an exploratory hypothesis, as the extant venture capital literature has not identified relevant attitudes within the venture capital industry that may be susceptible to institutional or cultural influences and as such of interest to focus on in the cross border interface. The relevant management attitudes and the directionality of limited partner influence, therefore, remains an empirical question that will be explored further in this thesis.

Summary

This chapter has summarised a set of five hypotheses, derived from the existing venture capital and related literature as well as from some more speculative sources. Due to the tentative nature of these hypotheses, and as part of the research process underlying this thesis, the relevance of the five hypotheses was subsequently investigated in a limited number of pilot studies of venture capital firms in the Swedish context. These pilot studies and the results they generated will be the topic of the following chapter. It will be shown that there was little reason to modify the five hypotheses presented in this chapter, and that an additional two hypotheses were required to complete the conceptual model before empirical testing.



CHAPTER 4

PILOT STUDIES AND CONCEPTUAL MODEL REVISION

This chapter presents the methodology and results from the pilot studies. The conceptual model is refined to include an additional two independent variables. The discussion also presents the development of venture capital specific attitude constructs.

The case study is an ideal methodology when a holistic and in-depth investigation is needed (Feagin et al., 1991). The pilot case studies consisted primarily of four¹⁶ in-depth studies of venture capital firms operating in the Swedish market. In the case selection, the starting point was the well-accepted understanding that case study research is not sampling research (c.f. Yin, 1981; 1994; Stake, 1995; Feagin et al., 1991); moreover, that selecting cases should be done so in order to maximise what is learned in the period of time available for the study (Tellis, 1997). Selection was, therefore, based upon a review of the investor profiles (as well as referrals from contacts), and was deliberately designed to allow for significant variation between firms.

The objective of the pilot studies was not to test the hypotheses, rather to assess and refine the conceptual model, in terms of reasonableness and completeness and, in particular, to identify specific themes of attitudes toward the role of venture capitalists and toward entrepreneurs. Data was gathered through a number of in-depth personal interviews with investment managers and partners, and also incorporated secondary data from company publications, media articles, and the firms' official web sites.

¹⁶ While there is no ideal number of cases for case study research, between 4 and 10 cases is considered to usually work well (Eisenhardt, 1989) by providing sufficient complexity without overloading.

Methodology in the Pilot Study

In total, the pilot study consisted of 14 interviews in Sweden, conducted during the period: February 2005 to June 2006. Twelve interviews were with partners or senior employees with investment responsibility within the venture firms; two were conducted with local industry experts. The number of pilot interviews was determined by a combination of pragmatism and theoretical saturation (Glaser and Strauss, 1967). This kept the interviews to the minimum number that would still enable the identification of relevant themes, and provide a better understanding of the processes and degree of limited partner influence. As venture capitalists are notoriously reserved about providing interviews, in most cases the recording of interviews was not permitted by the respondent. Detailed notes were, therefore, taken during the interviews instead, and transcribed immediately afterward. The choice of questions was somewhat restricted by the nature of the industry, with one respondent asking: "Whatever happened to the *private* in private equity?" Within these restrictions, the interviews included focused questions on the industry, the firm, and the individual respondent. The interviews were semi-structured, and the prepared questions were only used as a guide since the main themes of the interviews were allowed to develop during the discussion. This meant that comparative data was not necessarily available between the firms, and that the number of issues and venture capital-specific questions uncovered for use in the quantitative component of data collection was larger than it would have been had a more structured approach been used. The qualitative approach in the pilot studies was inductive, allowing prevailing theory to serve as a theoretical frame of reference and drawing attention to certain key aspects of the phenomena (Van Maanen, 1998).

In addition to the Swedish pilot studies, interviews were conducted in Australia during July and August 2005. The Australian interviews served the dual purpose of evaluating the benefits of conducting a comparative context study, as well as providing additional salient themes that could be explored in the Swedish context. The feasibility of the comparative approach was found to be limited due to the generally low willing-

ness of Australian venture capital firms to participate in academic research studies. However, the interview findings were retained to the extent that they informed the current study and the model refinement process.

Industry Situation and Pilot Studies

At the time of the pilot studies, there was a general understanding and strong agreement in the Swedish venture capital industry that a major consolidation was underway. From a peak of over 200 venture capital firms in the early 2000s, the predictions were that this would eventually settle at around 10 remaining actors. It was believed that this process would occur over the subsequent two years, and that the ability to raise new funds would determine who would survive. Of the 182 SVCA registered venture capital firms (December, 2004), estimates from one industry expert were that only 6 were actively investing on a regular basis beyond follow-up investments in currently held portfolio firms. Predictions were that only 1 in 10 venture capital firms who raised funds in 2000 would be able to do it again. The view was that this indicated of a process of natural selection, and the future was predicted by one of the pilot study respondents:

Sweden is quite a small market after all so, in the long term, I think that ten venture capital funds is quite a good number if you compare it to the US. (Senior manager, Industrifonden)

Case 1 - Industrifonden (IF)

While Industrifonden placed itself as one of the largest and most experienced venture capital firms in Sweden, the first pilot study case was significantly different to the other three firms, in terms of being a government originated initiative. As a result, the organisation is unique in the Swedish venture capital industry. Industrifonden was selected as the organisation that could most closely exemplify a pure Swedish venture capitalist; however, the specific structure and positioning of the organisation within the Swedish industry (Sutton, 2007) led to a different outcome for this particular pilot case. While not anticipated, the main value of this pilot case is the insight and illumination provided on the workings of the

industry in general, particularly as Industrifonden has acted as a co-investor with the majority of the other Swedish venture capital firms at various stages during their long history.

Industrifonden was established by the Swedish government in 1979. While having received initial state-funded injections, it is primarily self-financing. The fund management is structured by a government ordinance; the board is also appointed by the government. Industrifonden has interests in nearly 300 firms, and approximately 3.5 billion SEK under management. Prior to 1996 the fund was prohibited from owning shares, thus, operating primarily as a lender. However, a statute change in 1996 enabled equity investments in portfolio companies, generally conditional upon syndication with other Swedish venture capital firms. To facilitate regional investments, Industrifonden established 11 regional venture firms, working in co-operation with large Swedish companies - for example, Saab and Volvo. The investments via regional venture firms do not equate Industrifonden with a limited partner. When investing in these funds, they are investing in the venture capital firm as a regional subsidiary alongside the associated companies, and not investing in a closed-end fund. Industrifonden operates as an evergreen fund and is mandated to invest only in Swedish firms.

Investments are made in a wide spectrum of areas; the very diverse portfolio is split into five areas: IT/electronics, manufacturing industry, life science, listed companies, and venture. The portfolio covers the full spectrum of investment stages and does not specifically eliminate any sector or technology. The main limitation in their investment strategy is geographical.

Given its long history, there have been variations in strategic focus. In particular, there has been an attempt to narrow the IT strategy to focus on specific technologies; however, the restrictions on geographical scope meant that this was evaluated as too narrow and, therefore, abandoned.

Employment at a state-controlled venture fund avoids the difficulties inherent in under-funding of small firms, thus, provides the greater status of being part of a larger entity. The employment conditions were reasonable and it is understood by the employees that, although they will not get rich, they will get their salary every month and are, therefore, not dependent on the carry.

Industrifonden identify with, and compare their firm to, SEB Före-

tagsinvest, although other comparisons were made with 3i in regards to size. The firm they most admired was IT Provider as 'one of the best managed funds in Sweden'. When providing comparisons to the other venture capital firms in the industry, it was clear that Industrifonden operates with reduced freedom to make high risk investments in order to create high returns. During discussions, there were no references or comparisons to US firms or US models, except in terms of industry size; although it is known that, historically, Industrifonden has been interested in the development of the venture capital industry in the US and have sent delegates on study tours to learn more closely from the US market (Sutton, 2007). In the case of Industrifonden, one of the more interesting identity questions was that of the distinction between banking and venture capital. Although the employees are unable to explain the motivation, the change of statutes in 1996 transformed the role of Industrifonden from lending to a venture capital firm. Through to approximately 1998, there was a strong banking background combined with a technology focus: "We tried to help the companies develop the coolest technology, and so it was not that commercially driven." At the time of the study, Industrifonden saw themselves as part of the venture capital industry, although those at the company say that this is a very recent alteration that has occurred through changing the personnel structure to include many with prior experience as venture capitalists - the very recent change of CEO to Claes de Neergaard: a man who has a venture capital background, was on the board of Capman, and is a current member of the board of 3:AP fonden.

Industrifonden describe their involvement with their portfolio firms as *active*, and claim that their activities are largely the same as other investment venture capital firms - for example, working with strategic questions, networks, following the companies as far as they can, recruiting CEO's, etc.: undertakings that they explain as being basically traditional venture capital activities. The development of management procedures has moved from the banking mentality of the 1990s to a somewhat closer relationship with the portfolio firms in the last decade.

We don't micro-manage but, on the other hand, we are working quite closely with almost every venture capital fund here in Stockholm, or in Sweden basically, and I don't think that they do that in reality. I

think it is quite easy to talk about it, but I don't think that they do it actually. (Senior Manager, Industrifonden)

Still, structural differences between Industrifonden and the more common partnership model do seem to matter in their management of portfolio firms:

Of course, historically, we have had quite a few portfolio companies per investment manager which they don't have in the venture capital funds, and that makes it tricky for us to micro-manage even if it is sometimes needed. (Senior manager, Industrifonden)

Closely linked to the consensus requirements of the syndication model in Sweden are the differing views on competition. Industrifonden (who has a strong position) expresses a co-operative view toward the other firms in the industry even though they concede that they have lost deals to other firms. While Industrifonden is evergreen¹⁷, the ability to attract funds is crucial to the non-government venture capital firm survival.

It is a real disappointment (when other venture firms are unable to raise funds) because that gives the industry a bad name. I think I can name all the people working for different funds here in Stockholm. Most of them I have met. There are four colleagues at my department and we have basically met everyone so it is quite a small industry. (Senior manager, Industrifonden)

We have a shareholders agreement that puts us in the driving seat if we would like to. If we like, we can dominate the investment companies - this is not typical for a venture capital firm. (Senior manager, Industrifonden)

Key respondents from Industrifonden clearly noted incentive differences in a state-entity, and gave tentative responses to how this may affect the management of portfolio firms.

We have quite a low incentive structure here, in fact - So that is the tricky part in this state-owned entity. Basically, there is the same salary structure as in a consulting firm or something like that, but no more than that. Basically, I think that I don't get the whole structure;

¹⁷ An evergreen fund is a fund that does not raise capital rounds; instead, it operates on a balance sheet basis.

I don't care about the whole Industrifonden - I don't have the incentives to look at the others investments. (Manager, Industrifonden)

We can get quite risk avert as we don't have the upside, and maybe you don't get involvement from all personnel. (Senior manager, Industrifonden)

When I worked for my previous firm, I was quite geared in the companies that I worked with, I had stock options in them and so on, so I was kind of attached to them and it was quite hard to kill your darlings when you have stock options. (Senior manager, Industrifonden)

Industrifonden is currently required to only undertake syndicated deals; that is to say, they are not to be the sole investors in a portfolio firm, and they are only rarely the lead investor. This usually only happens as a result of follow on investments if the syndicated partner has financial difficulties. The focus of the investments is particularly long term. With an expressed awareness that the key to a high IRR is small, short term deals, the fund has an explicit non-IRR focus.

We are of course an evergreen fund so we don't have to do exits. You could say that we have a long term view on this. It could be 8 years, it could be 4, we know that it takes a long time to build great companies - and I believe that was one of the lessons from the early 2000s: that you have to have a long term perspective both in terms of commitment and in terms of cash reserve. (Senior Manager, Industrifonden)

Case 2 - NordicVenturePartners (NVP)

Founded in late 2000 as a management buy-out from Danske Bank, NordicVenturePartners has a single sector, multi-stage focus. At the time of the pilot study and after the successful closing of a new fund, NVP operated with managed funds of EUR 320 million and consisted of 6 partners operating in Stockholm, Copenhagen, and Helsinki.

NordicVenturePartners explicitly state they are modelled on the US fund structure, described as having a hands-on, early stage, technology focus rather than sector focus, industrial background, investment in management, target US market. The main differences between this model and their own is that NVP deviate with a 'different type' of investment in

management and their focus is on a global market. They also use what they refer to as 'American advisors' in specific situations. At the time of the pilot studies, NVP had no fund investors from the US, although they had an interest in attracting these investors in future fund rounds.

NVP are sector-specific to information and communication technology (ICT), although their aim is to be stage-agnostic as the stage of investments is not key to their primary goal: "We are committed to commercialising technologies". The geographical scope for investments is the entire Nordic region, although the portfolio companies in which they invest must have the potential for market growth globally, and must be based on technologies that are defensible globally.

NPV expressed the time constraints for exit with time-limited funds as an issue; however, the new fund was viewed as giving them greater freedom in this respect.

A respondent from NPV quite willingly stated that he was in it for the money - after many years as a senior manager at Ericsson he felt unremunerated for the number of hours he worked and the level of distress that came with doing "cleaning work". The knowledge of venture capital work came while completing his MBA in the United States and he, therefore, operated with a strong framework of US venture capital operations. He had prepared a report on internal capital funds and liked the idea that venture capital was 80% people and 20% technology.

NPV say they are modelled based upon the US fund structure, and distinguish themselves from other venture capital firms operating in the Swedish market, rather than identify with them; they are clearly competitively oriented, for example:

Company X is dying- these guys are deal makers, in and out quickly.
Company Y are not really a venture capital fund. They don't syndicate and basically are using other peoples' money to follow their own ideas. (Partner, NVP)

The pilot study was conducted within a few days of a successful fund close of EUR 120m, and this translated into a belief that they had ensured their position as a survivor in the industry shake-out. The view toward fundraising was that it was highly competitive and very dependent upon the appropriate strategy, skills, and value-added offer of the venture capital firm.

When it comes to the individuals in whom they are investing, NVP describe Swedish entrepreneurs as coming from large companies and having relevant experience, but lacking in *entrepreneurial spirit* and also lacking in experience of a small-business environment. The network aspects of the Swedish industry are perceived to function differently from the US network, where individuals gather networks over their lifetime of various employers and business ventures. This was given as one of the constraints to the implementation of the US model in Sweden. When investing in new teams or recruiting new management for existing firms, the network potential of the individuals is considered higher than the existing connections.

I am personally interested in people who can build a network rather than those who already have them. (Partner, NPV)

One of the main difficulties is the entrepreneurs' lack of confidence. They don't believe that they are the best. As a consequence of this lack of confidence, NPV see themselves in the role of coach and as the people that need to sit behind the 'guy' during negotiations. A recent example given to illustrate this point was a portfolio firm negotiating a sale. During the negotiations the portfolio firm was prepared to halve the sale price. NPV say, in this case, their role was to say: "you guys are the best in the world - what do these customers want? - They want the best in the world.... Don't lower your price". The concept of micro-management is very dominant, and NVP use a very detailed contract agreement to provide themselves with veto rights on the majority of board decisions. While already comprehensive, NPV expressed plans to extend their veto rights further, particularly in relation to the portfolio firm's negotiations with customers. Currently, the partners already review all of their portfolio firms' contracts themselves - even in the case of strong performing firms. This is unlikely to change as "they might be doing well because of micro-management". The view of the role of the venture capitalist was one of hands-on action with a direct approach, rather than experimentation; yet as a firm, they spend time intellectualising what they do.

An additional difficulty that was noted by the firm is the Swedish norms of work/life balance, and two different examples were given in relation to the importance of summer vacation in the Swedish context. The firm had experiences of portfolio firm management electing to take

summer vacation within the initial period of their venture firm's involvement. This was viewed with irritation and as a sign of a lack of commitment to the success of the venture. This specific situation resulted in the venture partners themselves having to attend negotiations and undertake the workload that they believed should have been shouldered by the portfolio company management.

Even after the initial start-up period, frustrations arise when the portfolio firm founders or other key individuals are unavailable during the summer months when crucial activities and decisions are still ongoing. The venture firm steps in to fill the gaps in these situations, but they view the behaviour as intolerable, even though it is recognised as a cultural artefact of Sweden; and, in the cases that had occurred in the portfolio companies during the time frame of the pilot study, the behaviours were deemed worthy of dismissal, and the process of the replacement of key positions was underway.

The situation of consolidation has made the raising of new funds to be the critical factor in success. The successful NVP describe the process as one of selling the team and selling yourself. Their experiences are of institutional investors questioning their record in a situation based scenario: *How did you get this particular deal? What have you personally done to add value in the deals?* Selecting the right team is a crucial and on-going process. When selecting a new Investment Director, they looked for experienced people in their 30's that could be developed into partners. The background of one of their new recruits was interesting; the individual had a primary degree in Business, had worked in Insurance, completed an MBA, worked with Northstream, Argnor, then NVP'.

NVP's view is that venture capital money is expensive financing for entrepreneurs; the venture capital firms' own requirements, in terms of returns on equity invested mean that the entrepreneurs are generally the last to benefit from their own success.

Case 3 - Argnor Wireless Ventures (Argnor)

Argnor Wireless Ventures was co-founded in 2001 by Argo Global Capital Inc, a US based international venture capital firm, and Northstream AB, a strategy consulting firm focused on wireless communications. The investment focus has been exclusively on Nordic companies developing

wireless communication products and services. At the time of the study, Argnor had 5 portfolio firms and funds of 31 million SEK managed by two Partners/Investment managers. During 2005, Argnor was winding down their operations from a 2002 peak of 7 companies, 52 million SEK, and four partners. Argo Capital Inc. not only contributed the majority of the fund; they have been instrumental in establishing the strategy and processes of Argnor. There are also representatives on the board from both Argor Global Capital, Inc., and an 'active observer' from Best Manager Partners, also a US-based venture capital firm. Argnor are specialised in early stage wireless firms:

We should invest in wireless companies. The idea was companies that could sell to mobile operators, either things they sell on to their end users or that they use in their own infrastructure, to reduce costs or increase their efficiency. (Senior manager, Argnor)

Argnor defined *early stage* as a company that had basically developed their product and even had their first customer. They have worked with the idea that there should be proof that the product was working as they held a preference for market risk, rather than technology risk.

Argnor's strategy was an investment length of 3-5 years, yet said that their experience has shown them that a period of 4-7 was, in fact, more realistic due to the situation of small companies that required multiple mergers before they could be fully exited. The original strategy would appear to be based upon the idea that the best IRR can be achieved with "short term, quite small deals". The network difficulties of Swedish entrepreneurs were noted by Argnor:

One other problem is that individuals didn't anticipate that they would not get the same attention with a start-up as they got while employed by Ericsson. There is a lot of noise associated with start-up companies, and the Ericsson business card opens doors. Even having connections from before is not a guarantee in this industry; connections are 'fresh-goods'.
(Senior manager, Argnor)

A respondent from Argnor was contacted by a former colleague at Ericsson who thought that his industry background would be an asset in the venture capital firm he was co-founding. He was in the process of looking for a new position and he figured "it was time to do something different".

He didn't really know how venture capital work would be, and had just assumed that it would be similar to managing subsidiaries. He received information from the main investors of the fund (Argor) on processes, documentation requirements, and due diligence. He was surprised that the job required "so much transaction oriented work".

Argnor see their firm as being most similar to Brainheart:

Brainheart also have a CEO who is more of an entrepreneur, more of an operations person - many of the others are financially driven - we are more operationally driven. (Senior manager, Argnor)

Despite this one similarity, Argnor does not identify with the Swedish industry.

We are not really part of the Swedish venture capital society, if you like. We have tried to stay on our own track; we tried to do somewhat different investments - not the same as everyone else. (Senior investment manager, Argnor)

Argnor holds board seats in all of its portfolio companies, providing a standard description of their role as venture capitalists: making introductions to people in their network, joining the portfolio companies in customer meetings, and attempting to secure additional financing. The level of involvement appears to be even greater, however, as it can stem to partners taking over the role of CEO in their portfolio companies until an appropriate candidate is located.

Argnor, who has been unsuccessful in securing new funds, attributes its lack of success to the market conditions.

The operators, they just stopped investing... no company has been selling, so you could say that everyone needs to share in the costs for that. (Senior manager, Argnor)

Case 4 - Pod Holding

Pod Holding was founded in 2000, and has been established by an American-Swedish team of investment professionals. A portion of the investment managers and partners have developed their respective careers within the Stenbeck sphere of companies; the influence of Jan Sten-

beck's philosophies are strongly tangible in the beliefs of the firm. The firm funding comes from one large private family investor (Douglas); there is a strong and dominant influence of successful US venture firms as a role models for their own firm. There is a distinction made between themselves, and the industry that existed in the mid-1990s.

Pod believes that having the *right owners* is a critical component of a venture firm's success. Ideally, they believe, having a small number of large owners is the most favourable arrangement. While being reliant on large owners provides less security for the individual firm, the inefficient firms will quickly leave the market when the strong owners do not want to reinvest. This will avoid the problem of faceless funds.

The difficulty with some owners is that they may have an expectation that the venture firm will stick to its strategy. However, changing strategy quickly is where the good returns come in; the firm must, therefore, have the freedom to react quickly to inefficiencies in the market, and be able and willing to take enormous risk.

Pod is interested in attracting further rounds of funds from the US. At the time of the study, it had unsuccessfully been through an initial round of screening with a large US-based investor. In the process of negotiations, Pod restructured its firm to accommodate the requirements of the US investor, including changing the partner and employee composition, and reconsidering its investment strategy.

Pod is disheartened by the lack of speed of decision making in the industry. Pod's philosophy is to *be a visionary*, and believes that there is nothing gained by intellectualising its decisions in too much depth. As a rule of thumb, it notes that in a large corporation, the average time per large transaction is one month; while in the venture capital industry, the average time for even the smallest deal is 9 times longer due to the extensive requirements of due diligence.

Pod operates on the belief that, as a firm, it needs to be entrepreneurial, while not being entrepreneurs, saying: "You can't play on the team and coach at the same time."

With a strong focus on the US model of venture capital investment, Pod believes that the nature of deals should be international (meaning US): Moreover, it sees no alternative for European firms, but to be in line with this belief - that, in Europe, you should play by the US rules, or not play at all - and Pod maintains that it needs to embody the right invest-

ment view, strategy, and models. The firm has extremely high ambitions to build *the silicon valley of Europe* in the Nordic region - particularly in Stockholm.

The team is highly inspired by successful US firms, and quite specifically draw upon a repertoire of often repeated stories of certain firms and individuals who were exceptionally successful in the US context. In general, it was summarised that there were key elements to the success of these firms:

Smaller, more targeted (firms) had investors that understood what they were doing. They were crazy ideas but they poured money into them. The 'A' round investors are in for the long term: true long term investors, left field investments. The focus was not technology, but new business models, and they are disruptive... inflicting pain on the establishment. (Partner, Pod)

It needs to be remembered that opportunism is not carelessness. (Partner, Pod)

Reflecting on the stages of career success, one of the partners stated that the more experienced the individual, the bigger the item on the balance sheet for which they were responsible. In his view, experience should be channelled to the smaller, more risky areas that were rarely found in these areas.

In true portfolios, there is a category called other. We need firms that just invest in other. (Partner, Pod)

Discussion: Pilot Studies

This section summarises the insights gained from the pilot studies: first with a focus on strategy, management and, particularly, attitudes. The discussion then adds three previously unidentified issues: specifically related to active structuring and strategic group identity.

Strategy and Management

As discussed at the beginning of this chapter, the intention of the pilot studies was to look for further considerations for the conceptual model and, in particular, to look for venture capital industry-specific attitudes

that may be culturally susceptible. Therefore, the outcome from the pilot studies with regard to the strategy and management of the venture capital firms was relatively uninformative.

What could be noted, however, is that the espoused strategies of the pilot study firms varied significantly, in terms of the portfolio diversity. Particularly, there were differences between the firms in the breadth of stage focus, sector and technology, as well as investment geography. In the case of Argnor, the sector strategy was directly attributed to the requirements of their US investors. The experiences of Pod also provided support to the notion that the venture capital firm may indeed alter their firm structure and their strategy as a result of negotiations with (potential) limited partners.

The main relationship preferences were evident in the differing conceptions of active management, and closely related to this are the perceptions of entrepreneurs. All four firms in the pilot study claimed that they were active managers: a component of the definition of venture capitalist. However, variation in what specific activities this could involve and the importance of these activities to the firms' strategy could be tentatively identified. From NVP, there was clear indication that it was aware of the importance of conducting the right sort of activities, and of being able to demonstrate this to its potential investors during the fundraising process. At Argnor, specific reporting requirements by its foreign investors were identified as determining the focus of NVP's activities.

Attitudes

Interview respondents brought up additional considerations, primarily in the area of management that is specifically relevant in the venture capital industry. To better delineate the themes, an iterative process between the venture capital literature, the transcripts of the pilot study interviews, and a cultural orientations framework (Appendix 1) was used. The framework comprised the work of Kluckhohn and Strodtbeck (1961) and subsequent adaptations by Schein (1985) and Phillips (1994), as well as the cultural dimensions of Hofstede (1980), Trompenaars (1993), and the managerial implications of these suggested by Lane et al. (2002). The intention was to identify specific attitudes toward the venture capitalist role, expectations toward portfolio companies and entrepreneurs, and

toward the industry as a whole. Using the cultural orientations framework as a reference point, the themes uncovered were more likely to illuminate areas where potential differences in logic could be found.

What is important to note, however, is that there was no attempt to replicate or mimic the specific cultural dimensions of the various authors that were included in the framework. The following themes emerging from the pilot studies were considered to be the most relevant for further developing hypothesis 5, which was concerned with managerial attitudes¹⁸.

Independence: Independence means the level of autonomy that should be given to entrepreneurs. While venture capitalists define themselves as being *hands-on*, there were indications in the interviews that the view toward 'investing faith' in the entrepreneurs and management could differ between firms. There seemed to be different levels of confidence that the portfolio companies could rely upon to make the right decisions and do the right thing in the absence of close supervision. NVP and Pod showed clear differences in this respect. The underlying issue would appear to be whether people perform better when given the autonomy of decision to do so and whether portfolio companies need to be micro-managed to perform well; this issue appeared to be independent of objective appraisals of entrepreneurial *competence*.

Entrepreneur Attitude: Stemming from the comments of NVP, the general themes raised were what and who is the entrepreneur, and how should entrepreneurs behave after receiving venture financing. Does the receiving of venture financing indicate a reciprocal obligation of the entrepreneur and/or management team to make sacrifices in their *quality of life* in order to achieve the goal of maximum venture success; or, is being an entrepreneur or involved in an entrepreneurial venture no different from any other employment positions?

¹⁸ Additional themes were developed from the interviews, for example, the cooperative versus competitive nature of the industry. However, as these were not used in the final analysis, they will not be commented upon further here.

Decision Type: The discussions with Pod Holding centred strongly on the belief that venture capitalists needed to be visionary and not over-intellectualise the investment decisions made - to take the required risks that success in the industry demands. The contrast used in the discussions about *the others* or venture capital firms that conducted extensive time consuming due diligence prior to investment, indicated that the belief about the way venture capitalists should make investment decisions and other important decisions in their role may be of interest.

Confidence: NVP brought up the issue of the lack of confidence among entrepreneurs in Sweden. Despite being talented and of world-class calibre, they needed the venture capitalists to boost their belief in themselves and their firm in order to be able to be successful or produce the best results for the venture capital firm and themselves. The obvious contrast was made: US entrepreneurs were seen as the 'ideal' type, in terms of confidence and ability to sell their talents and products, and receive the best return on their firm's respective efforts. NVP believed that its role as a venture capitalist firm meant that it was responsible for coaching the entrepreneurs into having greater confidence.

Responsibility: Primarily an issue first identified in the Australian interviews that was subsequently noted in the Swedish interviews was that there was no responsibility by the venture capital firm for the wellbeing of the portfolio firms. For example, by Argnor, who believed the founders of firms that decide to take on venture capital were fully at risk to any financial advantage the venture capitalists may take of their position; and by NVP who concede that entrepreneurs benefit only after the venture capitalist has received their required returns.

Agency: NVP described an extremely complex and detailed contractual agreement that they considered crucial to maintaining its position and controlling all eventualities that may arise with its portfolio firms. The intention was to increase even further the contractual obligations of the portfolio companies. At Argnor, the contracts were known to disadvantage the portfolio companies, yet were considered a crucial part of its operations.

Hierarchy: Primarily an issue in the Australian firms, the belief was that the venture capital firm is the owner of the portfolio firm and is, therefore, in a superior hierarchical position to that of the entrepreneurs, who are in a reliance position toward their capital providers. The alternative is that the two parties are in co-operation, and that the venture capital firms are, in fact, in a reliance position vis-à-vis the entrepreneurs, given the fact their returns depend upon the success of the firms in which they have invested.

Additional Findings

Apart from the information collected on strategy, management, and attitudes, the pilot studies indicated interesting variation around an additional set of variables. These variables included: (1) Active structuring, which concerns the fundraising strategy of the firm and whether pilot study firms intended to raise future capital from foreign investors; (2) Group identity, or the main reference community of firms upon which the venture capital firm is modelled. These two additional findings will, in turn, be addressed here.

Active Structuring

The pilot studies suggested that the impact of limited partners may begin prior to the actual fund receipt. The anticipation and planning for funding among venture capital firms may affect both strategy and management practices. Influence and adjustment is, therefore, not only a direct effect of negotiations following sequentially after the arrival of funds; in many cases, it may in fact be pre-emptive and reflect the intention of the firm to try to receive funding from a specific source.

This finding is consistent with the study of Barnes and Menzies (2005) where the limited partners in their sample were found to undertake long screening processes prior to the investment in a venture capital firm; this included tracking the firm for a number of years, and waiting to see them invest and exit deals before the actual investment is made. The development of an informal relationship with the venture capitalist may

begin during this period of pre-screening, and the opinions of the venture capital firm can be formed long before the venture capital firm begins a fundraising process: up to 5 years is suggested (Barnes and Menzies, 2005).

Group Identity

The perception of the role of the venture capitalist also seems to affect the firm's behaviour. Particularly visible differences were noted in the understandings of the skills required, the ideal sources of knowledge, and the core success recipe in the industry. The firms could distinguish themselves from the Swedish venture capital industry (in fact, all firms apart from Industrifonden stated that they were not a part of the Swedish venture capital industry), and claim that they were different in some fundamental ways. The group identity, or the main reference group of three of the four pilot study firms, was not the Swedish venture capital industry, but instead, a general or global venture capital industry, or the US venture capital industry.

Conceptual Model Revision

The purpose of the pilot study was twofold: first, the intention was to assess the conceptual model for appropriateness and completeness, and secondly to develop venture capital industry-specific management themes to operationalise the hypothesis pertaining to management attitudes. While the general finding from the pilot studies was that there was sufficient support for the model to proceed with empirical testing of the derived hypotheses, two additional variables were identified and considered necessary to complete the model. In this concluding section, these two added variables will be integrated in order to create a revised conceptual model.

Active Structuring of Strategy and Management

The active structuring of the firm that may occur prior to receiving foreign funds is important to our model. The development of specific investment strategies and management activities, as part of a venture capital firm's strategy to raise future funds and appeal to specific future limited partners, could mean that firms that currently have only locally sourced funding could display elements of an investment strategy and management activities that are similar to those that do have foreign funding. The strategic element of planning for future fund rounds may, thus, have an impact on current behaviour.

Active structuring appeared to be comprised of two elements. First, it involved the openness and willingness of the firms to source funds from foreign investors, with the understanding of the restrictions that may be imposed on their activities. Secondly, whether or not the firms considered that they do in fact base their strategy on the issue of attractiveness toward specific investor groups. This finding resulted in the development of an additional hypothesis:

Hypothesis 6: Firms that are actively structuring their operations to attract foreign funds will display: (a) investment strategies, (b) management activities, and (c) management attitudes that differ from those of firms that are not actively structuring their firm for foreign funds.

Identity Reference

The interviews further revealed that the venture capital firms had specific ideas about the group of other firms they resembled most, and that they used these firms as a reference group. Three of the four firms stated that they were not like the 'other' firms in the Swedish venture capital industry; although when pressed, they could name some local firms to which they operated most similarly. One possibility is that the firms were describing their 'strategic group identity' (Peteraf and Shanley, 1997), a concept derived from the work of Albert and Whetton (1985), and defined as:

A set of mutual understandings, among members of a cognitive intra-industry group, regarding the central, enduring, and distinctive characteristics of the group (Peteraf and Shanley, 1997, p.166).

The similarities to the organizational identity concept are the focus on *central, enduring and distinctive* elements. The definition, however, is specific to 'strategic group' through the focus on *mutual* understandings rather than *shared* understandings among members

A strategic group acts as a reference group in the process of strategic choice with firms benchmarking those firms within the same strategic group. The strategic group literature includes the reference group concept developed in the psychological literature (c.f. Kelly, 1955). In particular, the work of Fiegenbaum and Thomas (1995) applies this perspective in the development of an adjustment model of strategic group dynamics. In this theory, a reference group provides a normative function in which standards and norms are developed, and also provides a comparative function. The normative function can be reinterpreted in the context of competitive strategy to imply that strategic group members tend to conform to group norms and adopt similar strategies.

Other theoretical perspectives, including the cognitive-interpretive perspective (Porac et al., 1989), liken strategic groups to cognitive communities. Because of indirect and direct imitative tendencies over time, the mental models of the industry actors become similar, thereby creating group-level beliefs about the marketplace (Aldrich, et al., 1984; DiMaggio and Powell, 1983). The result is that the strategic choices of individual firms take place within the context of shared beliefs about how and with

whom to engage in transactions in the marketplace (Spender, 1983; 1989).

Strategic group identity or strategic orientation is considered an important variable to provide completeness to the conceptual model. The group identity variable suggests that, even in the absence of the influence of the geographical source of funds, there would be variability in the local Swedish industry - in terms of investment preferences, management activities and management attitudes. Given the limited information from the pilot studies, it is difficult to determine exactly what the most relevant theoretical concept is. Conceivably, the firms were describing group identity (Peteraf and Shanley, 1997); however, it is also possible that the indications are toward differing industry recipes (Spender, 1989) or more simply, the reference group (Fiegenbaum and Thomas, 1995) that the firm uses as a model for their own firm behaviour. The variability in the industry group that the venture capital firms use as a reference, and the expected influences on preferred modes of operation, suggests an additional and final hypothesis. To simplify the hypothesis, the term 'identity reference' can be used at this stage in order to represent the eclectic variable that may include elements of social or strategic identity, as well as the reference group concept:

Hypothesis 7: The identity reference of the venture capital firm will be related to: (a) the investment strategy, (b) the management activities, and (c) the management attitudes of the venture capital firm.

This hypothesis places the identity reference group as an independent variable in the revised conceptual model. Again, the semi-inductive nature of this research needs to be emphasised. Without confirmation on the extent of different identity communities in the population - and without knowing the specific relationship between identity and the source of funds, or identity and the actions of the venture capitalists - there is difficulty in distinguishing whether identity is a compounding or mediating variable, or if identity is a separate, independent property that has surfaced through the pilot studies.

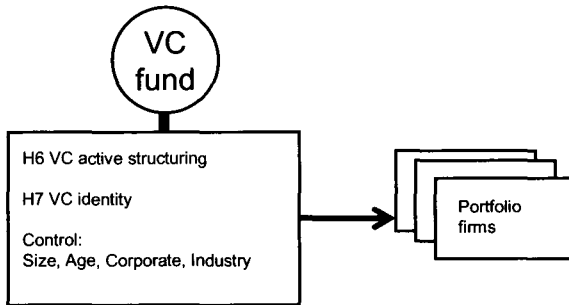


Figure 4.1: Revisions to the Conceptual Model

Summary

To summarise the additional findings from the pilot studies, the conceptual model is revised (Figure 4.1). The additional variables, *active structuring* (pertaining to the fundraising strategy) and *identity reference* are properties of the venture capitalists themselves. In this model, limited partners screen and select venture capital firms, and subsequently invest in the venture capital fund. The venture capital firms have an identity reference and a fundraising strategy that influences the investment strategy and management (activities and attitudes) of portfolio firms. The three identified influencers (independent variables) in this model are, therefore, the geographical source of funds, the venture capitalist fundraising strategy, and the venture capitalist identity. The dependent variables are the investment strategy of the venture capital firm (specialisation, stage, and geographical region), the management activities of the venture capital firm, and the management attitudes of the venture capital firm. Hypotheses 1-5 are concerned with the geographical source of funds variable. Hypothesis 6 (parts a, b, and c) looks at the effect of the fundraising strategy of the venture capital firm. Hypothesis 7 (parts a, b, and c) is concerned with the identity of the venture capital firm.

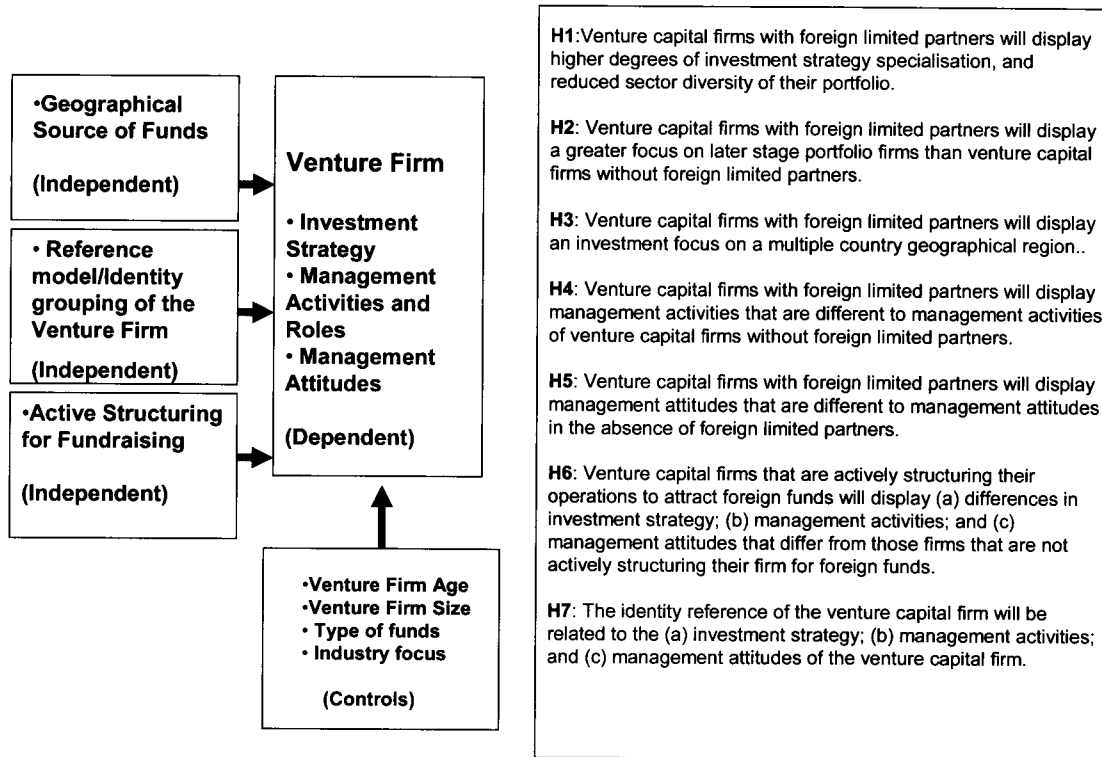


Figure 4.2: Summary of the Variables and their Hypothesised Effect on the Venture Capital Investment Strategy, Management Activities, and Management Attitudes.

CHAPTER 5

RESEARCH DESIGN AND DATA

This chapter presents the methodology underlying the main part of the empirical investigation, including a presentation of the data collection process and the sample of 62 venture capital firms employed to test the hypotheses developed in chapters three and four (in some cases, 73 venture capital firms where secondary data sources were sufficient).

This section further provides detail on the operationalisation of key variables used in testing the seven hypotheses developed in the previous two chapters. First, the dependent variables of investment strategy, management practices, and management attitudes are outlined. Following this, the three independent variables: geographical source of funds, firm identity, and active fundraising are presented. The control variables that were identified - including institutional funds, firm age, corporate versus non-corporate, and industry focus are subsequently discussed. Apart from presenting the measures used, the discussion also provides baseline information on the responses received from the sample firms.

The chapter concludes with a review and description of the statistical techniques employed in the empirical analysis to arrive at the results that are presented in the subsequent chapter.

Method

The method used to address and test the established hypotheses in this study is a small sample survey, in line with traditional work in the field. As noted by Brophy and Shulman (1992), "Financial research on entrepreneurial firms has traditionally used small sample sizes and related methodologies, producing for the most part clinical studies on entrepreneurial finance." To put the methodology and present sample into perspective, it is relevant to note that, in their research based on a UK sample of 92 firms, Osnabrugge and Robinson (2001) claim that "this study may be one of the largest academic venture capital targeted research studies

conducted in the UK.”

The sample used in this thesis includes Sweden-based venture capital companies; the respondents are partners and investment managers at these firms. To locate firms and respondents, the 2006 listing of venture capital firms from the Swedish Venture Capital Association (SVCA) was used. According to the SVCA, its association membership represents 95% of the total active venture capital firms in Sweden. The list was supplemented with other active venture capital firms that were not members of the venture capital association by searching the Zephyr¹⁹ database for all Swedish venture capital deals in 2005 and 2006. In this way, it was ensured that the survey reached the majority, if not all, potentially active venture capitalists in Sweden.

The sample did not include *angel investors*. Whether referring to accredited investors or just any private investors, this informal element of the venture capital market is, therefore, not addressed in this study. The primary motivation for this is that the informal market is not well understood, is difficult to gain access to, and also that the funds used by angel investors are generally limited to those of the investors or investor families themselves and are therefore not relevant to the central research question. The sample also excluded firms operating exclusively in private equity, or those only active in the *buy-out* phase. To solve the difficulty in defining the dividing line between the venture capital and the private equity classifications, the final selection of the sample depended upon the self-classification by firms in the targeted population.

The full questionnaire, distributed as an on-line survey, comprised 7 sections, and included a total of 145 questions. It was translated into Swedish by native Swedish speakers, and translated back into English to check for meaning equivalence. Discrepancies were discussed with the translators and adjustments were made to the phrasing of the questions where necessary. The questionnaire was tested sequentially. Firstly, the clarity and relevance was ensured by testing it on industry experts. These industry experts included partners operating in the private equity buy-

¹⁹ The Zephyr database is a European database from Bureau van Dijk Electronic Publishing with complete coverage for rumoured, announced, and completed deals. The database covers any merger, acquisition, planned IPO, IPO, or private equity / venture capital-backed deal. Historical coverage dates back to January 1997. The database is continuously updated.

out market, and a former SVCA employee. Secondly, the usability of the on-line survey interface was tested by individuals who had extensive experience in questionnaire design in this specific format, including researchers from the Centre for Strategy and Competitiveness²⁰ who had previously designed large scale on-line surveys for the European Union research agenda. The pre-testing, therefore, covered a number of purposes including: maximising the clarity of meaning, the optimal flow of the sections, the order of questions, and addressing considerations of the overall respondent interest and attention (Converse and Presser, 1986)

In August 2006, the questionnaire was distributed by personally addressed emails to 106 venture capital firms, using the web-based tool, Survey Manager. The email explained the general purpose of the study, with care taken not to expound the particular theoretical connection that was to be tested on the collected data. Each respondent received both a Swedish and English version of the survey. It was understood from the outset that some of the questionnaires were sent to firms that may be operating only in the buy-out segment; nevertheless, the survey was distributed to all identified firms in order to avoid potentially omitting firms that met the chosen venture capital criteria.

A response of 64 more or less complete cases was generated, representing a response rate of 60% after four follow-ups. Three of the follow-ups were reminders using the survey manager tool, and one reminder was an email emphasising and explaining the importance of the respondent's participation in the study. 14 firms directly declined participation, with the main reason cited (in 9 cases) that they were a pure buy-out firm or did not have any current active involvement in Sweden. To accommodate missing information, supplementary data on sources of funds was obtained for 16 of the responding firms through telephone follow up or the Zephyr database, where applicable. Non-respondents were reviewed; and, for those non-respondents where adequate secondary data was available on portfolio composition (investment sector diversity, stage, and geographical location) and fund sources, the details were added to the on-line responses. This process added the strategy data and fund sources for 11 firms. Two of the completed questionnaires were identified as outliers on account of firm size. It was also clear from the

²⁰ At the Stockholm School of Economics.

response pattern that these two firms were essentially buy-out firms and they were, thus, removed from the sample. The result was full or partial data on 73 venture capital firms. The 9 firms that declined participation due to the nature of the funds (buy-out) or the apparent lack of active involvement in Sweden, plus the identified two outliers could be considered as not belonging to the population of active venture capital firms. The actual response rate may, therefore, be considered to be 65% (62 of 95 firms). The survey manager tool provided time for completion data; average completion time was 22 minutes (range was 15-45 minutes).

Table 5.1: Respondent Positions

<i>Respondent Position</i>	<i>Number</i>
CEO/President	16
Director/ Associate Director/Managing Director	4
General Partner/Senior Partner	19
Investment Manager/Venture Manager/ Senior Venture Manager	15
Other: Analyst/Associate/ Senior Business Development Officer/Senior Project Manager/IR Manager/CFO/Finance Director	8

Table 5.2: Respondent Tenure, Firm Size by Investment Professionals, and Number of Swedish Nationals

	n	Minimum	Maximum	Mean
Length of Position (years)	53	1	14	4.42
Number of Investment Managers/Partners	69 ²¹	1	25	5.90
Number of Investment Managers/Partners that are Swedish Nationals	63 ²²	0	19	4.84

Non-Response Testing

Given the small size of the population, the non-response rate of 33 firms was assessed for non-response bias. This bias can occur when the survey request is ignored by a significant number of firms that differ from responding firms in meaningful and systematic ways. There are a number of methods for examining non-response, either focusing on the detection and estimation of the bias, or focusing on statistical methods to compensate for biases (Rogelberg and Stanton, 2007).

²¹ This includes figures obtained from secondary sources.

²² As above.

One of the most commonly used techniques is archival analysis: comparing respondents to non-respondents on variables contained in an archival database. Following this method (using the SVCA and Zephyr database), investigations revealed that the non-respondents were generally evenly distributed in terms of size, although there was an overrepresentation of very small and very large firms. The very small firms were generally represented by one individual, operating with an undisclosed amount of private money, and can be assessed as not actively raising fund capital. The very large firms were similar to the responding large firms, and most were listed. In terms of the geographical origin of funds, a larger proportion of the non-respondents were from firms that were funded by Swedish limited partners, thus reflecting the distribution of firms in the obtained sample.

Generally, it may therefore be expected that the sample used in the present study reflects the typical activities of Swedish venture capital firms.

A Critical Review of the Data

Data was collected through the use of an online survey with one respondent per venture capital firm, containing questions on both the dependent and independent variables. To limit the impact of the variance attributed to the data collection method, the structure of the questionnaire was considered important. The online survey method has the benefit of reducing the respondent's ability to gain a general overview of the contents of the questionnaire. Each question is presented sequentially and, while the respondent is not prevented from moving through the questionnaire prior to answering, this is not explicitly facilitated. A review of the respondent behaviour provided by the survey generator supports the assumption that the respondents moved sequentially and systematically through the survey.

The order of the questions was counterbalanced to an attempt to neutralise the retrieval cues prompted by the question context. The respondents were guaranteed anonymity, both representing procedural remedies suggested by Podsakoff et al. (2003) when the use of different sources for data collection is not feasible. Counterbalancing the questions has been noted to be at odds with the funnelling procedure in order to

provide logical progression in the survey structure (Peterson, 2000). However, as the survey had several sections and the counterbalancing technique was employed between sections, the disruption to the logical flow should be minimal within each section.

Moreover, the data on the source of funds was either collected independently through a combined search of the SVCA listing, the firm's web page, and the Zephyr database, or alternatively it was checked against these sources. The investment strategy responses were simultaneously cross-checked to actual reported portfolio holdings, and no anomalies were noted during this procedure. While it would have been theoretically possible to seek multiple respondents per firm, this proved practically impossible. Venture capital managers are hard pressed for time and asking for multiple respondents would, in all probability, have had a significantly negative effect on the response rate. Those individuals who did answer the questionnaire are believed to be well-informed about their firm's operations.

In addition, the survey method only provides for cross-sectional data. This places limitations on the conclusions that can be drawn in relation to the underlying mechanisms of observed patterns. In other words, causal relationships cannot be extracted directly from the data. At best, the data can provide evidence of associations between certain variables. The onus on causality is left purely to theoretically-based conceptual arguments and exemplifications from the qualitative pilot studies from which parts of the survey questions were derived. To more closely capture the influence of foreign funds on the dependent variables, a longitudinal instrument that covered the period before and after the foreign fundraising event would have been more ideal. Unfortunately, the rarity of the fundraising event (every 5-10 years) and the small number of venture capital firms in the Swedish industry (not more than about 100) would have required that the study cover an unfeasibly long period of time. It is believed that the inclusion of the variable 'active structuring' in the study may, to some extent, diminish the limitations of the cross sectional design - at least with regard to the prioritising of competing causal mechanisms.

Operationalisation and Measurement

Questionnaire Design

The major research question in this study is in what way foreign limited partners affect the investment strategy, management practices, and management attitudes of local venture capital firms.

To construct the requisite questionnaire, a review of previous venture capital survey instruments was undertaken; where applicable, these pre-tested questions were used. As there has been no comparable previous study on venture capital management attitudes, these specific constructs were developed from the literature and the results from the pilot studies.

Dependent Variables

The dependent variables of the revised model in chapter 3 include the three main categories: investment strategy, management practices, and management attitudes. Each of these categories includes a set of specific variables, which are further presented below.

Investment Strategy (Sector, Stage, and Geography)

Sector: The firm's current degree of sector specialisation was indicated by the firm itself, based on a single answer item on an ordinal scale. The categories that were used ask whether the firm was currently investing in; (1) one sector. (2) multiple, related sectors, (3) multiple, unrelated sectors, or (4) not limited by sector. The ordinal sector scale, thus, reflects the relative position of the firm from a highly specialised to a highly generalised sector investment strategy.

Stage: The firm's investment focus - in terms of stage - was indicated by a multiple response set. Respondents indicated whether their firm invested in seed, start-up, early growth, or expansion stages. The understanding of these categories within the industry is well-standardised across Europe (definitions can be seen in Appendix 2). To create a single measure, the responses were re-coded on an ordinal scale of 1-7, ordering all possible

combinations of stages of investment. In this measurement, the score of one represents investment only in seed stage ventures, and a score of 7 represents investment only in firms in the expansion stage. To illustrate, a firm that invested in start-up only would be coded '3', and a firm that invested in start-up and early growth would be coded a '4'.

Geography: The firm's investment focus - in terms of geography - was also indicated by a multiple response set. Respondents indicated whether their firms currently invested in the local region, Sweden, the Nordic region outside of Sweden, Europe outside of the Nordic region, or outside of Europe. For hypothesis testing, the response *Nordic* was used as the dependent variable. When used as a control variable, the geographical scope of investments was recoded on an ordinal scale of 1-7, representing all combinations in the response set. In this latter measurement, a score of one represents a geographical focus on the local regional level, and a score of seven represents a geographical focus purely on investment objects outside of Europe.

Management Activities and Roles

Venture capital management activities are those actions and interventions undertaken to add value to its portfolio companies. Multiple studies have focused on the components and determinants of value-added activities and, therefore, previously tested measures have been utilised in this study.

Two measures were selected based upon their centrality and general acceptability in the venture capital literature, as well as being the most comprehensive measures of activities and roles identified in the literature. First, Erlich et al.'s (1994) adaptation of Macmillan et al. (1989)²³ was used to measure the extent to which specific activities are undertaken by the venture capital firm as opposed to being undertaken by the portfolio companies themselves. The 18 activities that are included in the original measure and replicated here are a comprehensive list of all the known activities that are undertaken to a greater or lesser degree by venture

²³ The four composite measures developed by Macmillan and Kulow (1988) were used by Erlich et al. (1994) as single items due to a lack of reliability in the latter study

capital firms in the United States. The descriptive statistics from the present sample firms confirm the results of previous studies with regard to the relative importance of each of the management activities from the perspective of the venture capital firm. In Table 5.3 the results for the full Swedish sample are presented in order of importance, where *Obtaining Alternative Equity Financing* is primarily undertaken by the venture capitalist; and *Develop Actual Product/Service* is carried out primarily by the portfolio firm.

Table 5.3: Management Activities

Given your firm's current investment approach, who carries out the following activities at the portfolio firms? (Likert scale from 1: 'Only Venture Capitalist' to 7: 'Only portfolio Company')		
	Mean	Std. Dev.
Obtain Alternative Equity Financing	2.57	1.364
Replace Management Personnel	2.78	1.184
Search for Management Team	3.35	1.259
Negotiate Employment Terms with Top Management Level	3.41	1.315
Interview and Select Management Team	3.56	1.118
Obtain Alternative Debt Financing	3.59	1.340
Monitor Financial performance	3.59	0.978
Monitor Operating Performance	3.76	1.043
Development of Initial Business Strategy	3.78	1.224
Manage Crises and Problems	3.86	1.281
Formulate Ongoing Business Strategy	3.87	0.975
Formulate Marketing Plans	4.84	1.194
Solicit Customers/Distributors	4.95	1.325
Motivate Personnel	5.11	1.404
Select Vendors/Suppliers/Equipment	5.29	1.142
Develop Production/Service	5.90	1.132
Negotiate Employment Terms with Employees	5.98	1.301
Develop Actual Product/Service	6.03	1.016

n = 62

Secondly, the typology of different roles used in this study was developed by Sapienza et al. (1996), drawing upon the work of Gorman and Sahlman (1989) and Macmillan et al. (1989). There is some overlap with the *activities* measure; however, role questions are presented in a more

generalised format and are specific to the venture capitalist role. The 5-point Likert scale used by Sapienza et al. (1996) was changed to a 7-point scale; yet in all other respects, the items are practically identical to the previously tested measures. When presenting the survey question, the elaboration of each of the roles was slightly modified where necessary to eliminate terminology that was redundant in the Swedish setting or modified when the Swedish translation was not equivalent. Table 5.4 presents the results where it can be seen that the role of *Business Advisor* is perceived as the venture capitalists most important role; and *Friend/Confidante* as the least important role in the full Swedish sample.

Table 5.4: Venture Capitalist Roles

At your firm, please rate the importance of the following roles toward your portfolio firms.

	Mean	Std. Dev.
(Likert scale; 1 = 'Not important'; 7 = 'Very Important')		
We are a Friend/Confidante: Concerned for CEO and management, go out of the way for CEO management, listen to CEO/management problems	4.56	1.089
We are a Mentor/Coach: Provide encouragement, positive reinforcement, support and motivation	5.22	1.237
We are a Financier: Provide or arrange finance in a timely manner	5.62	1.084
We are a Sounding Board: Listen, respond objectively, frankly and truthfully	5.70	1.173
We are a Source of Industry Contacts: Help generate orders, reach licensing agreements, locate key suppliers	5.89	0.863
We are a Management Recruiter: Help locate key members for management team	5.90	1.118
We are a Source of Professional Contacts: know/can locate lawyers etc.	6.22	0.832
We are a Business Advisor: Discuss plans, review targets, offer feedback, provide management assistance, and note threats.	6.62	0.633
Valid n = 62		

Management Attitudes

Venture capital-specific management attitudes measures could not be identified in the extant literature; therefore, constructs were derived from the literature and the results of the pilot studies. Nine original constructs were identified and these were tested for reliability using Cronbach Alpha's. The internal consistency, based upon the average inter-item correlation, was satisfactory²⁴ for 7 of the constructs. The two constructs for

²⁴ Nunnally (1978) suggests that an alpha above 0.7 is appropriate for basic research.

which satisfactory inter-item correlation could not be established were excluded from further analysis. Table 5.5 lists individual constructs, items included, and the respective Cronbach Alpha's.

Table 5.5: Attitude Constructs

<u>1. Independence</u>	Cronbach Alpha 0.737
Entrepreneurs are best left alone unless assistance is required. Portfolio companies should be monitored closely to ensure alignment with our VC company goals. (Reversed)	
<u>2. Entrepreneur Attitude</u>	Cronbach Alpha 0.720
An entrepreneur must be prepared to put the business first at all times. Entrepreneurs should forego holidays and family leave during the start-up phase of their business. The best entrepreneurs are those without a long corporate employment experience. Entrepreneurs should be prepared to accept low salaries while the business is being established.	
<u>3. Decision Type</u>	Cronbach Alpha 0.738
The use of investment decision models improves the success of venture capital firms. (Reversed) The ability to make decisions quickly is important for success in this industry. In our firm we make many of our major decisions based on our intuition. Previous entrepreneurs make the best venture capitalists.	
<u>4. Confidence</u>	Cronbach Alpha 0.864
We need to build entrepreneur confidence. We need to help Swedish entrepreneurs be more like entrepreneurs in the US.	
<u>5. Responsibility</u>	Cronbach Alpha 0.777
We are responsible for the overall wellbeing of individuals at our portfolio company. We are responsible for training the portfolio management teams.	
<u>6. Agency</u>	Cronbach Alpha 0.749
It is crucial that the intended interaction with the portfolio company be stated in a detailed contract. Contracted terms with the portfolio company should be followed without exception. It is natural that the relationship between venture capitalist and portfolio firm is adversarial.	
<u>7. Hierarchy</u>	Cronbach Alpha 0.731
Portfolio companies are our customers. We want our portfolio companies to think of us as one of the team. Venture capitalists are in a superior hierarchical position to portfolio companies. (Reversed)	

Baseline information on the sample firms (Table 5.6) shows that the highest results are for *hierarchy*, meaning that there is an attitude of equality and inclusion toward the portfolio firms. There are also fairly high results for *entrepreneur attitude*, showing a general belief that entrepreneurship is

a different activity than employment in the Swedish setting, and well as *decision type*, indicating a belief in the industry of fast and intuitive forms of decision making. The lowest baseline scores were for *independence*, indicating a belief in the positive effects of micro-management of portfolio firms.

Table 5.6: Management Attitudes

	Mean	Std. Dev.
Independence	2.68	1.490
Entrepreneur Attitude	4.46	1.129
Decision Type	4.44	1.208
Confidence	3.16	1.247
Agency	3.70	1.232
Hierarchy	5.20	1.337
Responsibility	3.35	1.616
n = 61		

Independent Variables

The key independent variable is the geographic source of funds, but the independent variables also include firm identity and fundraising strategy. There are also a number of control variables for which to be accounted, including the size, and age of the venture capital firm, the industry focus of the investment strategy, the corporate versus non-corporate structure of the venture capital firm, and the institutional nature of the investment funds.

Geographic Source of Funds

Details were obtained on each fund round by the venture capital firms. This information included the amount and year for each round, as well as type of limited partners for control purposes, and the geographical composition of the source of funds (Sweden, Other Nordic, Europe, Asia, USA, Other). For the purposes of the baseline analysis, the geographical data was recoded as a dummy variable to classify the firms into those that had foreign financing, financing from the United States, or purely Swedish financing.

Identity Reference

Multiple instruments were used in the survey to measure the reference focus or the group identity of the sample firms, starting with the organisational identification instrument of Mael and Ashforth (1992), which was modified to reflect conditions in the Swedish venture capital industry. This provided a measure of the degree to which the firm identified with the Swedish venture capital industry. This measure was developed within the organisational identity theoretical stream, and is designed to measure the strength of internalisation of a specified identity. Secondly, the respondents were presented with non-exclusive categories of multiple communities, and were asked directly about the extent of their identification with each on a 7-point Likert scale. This measure was constructed in line with a reference group perspective.

The Mael and Ashforth (1992) measure comprises a six-item scale of identification; this was originally developed to measure organisational identification, and has been tested in multiple settings including student groups (Mael, 1988), managers in various organisations (Ashforth, 1990), and the US army (Mael, 1989). The items were developed to be applicable to organisations; however, given that the questions were quite general, the measures were adapted to be used with the local industry as the level of identification. The six items used in the present study show a Cronbach Alpha of 0.892, suggesting a satisfactory level of internal consistency.

Table 5.7: Items Forming the Industry Identification Construct

Please indicate the degree to which you agree with the following statements. (1= Fully Disagree; 7= Fully agree)

	Mean	Std. Dev.
When someone criticises the Swedish venture capital industry, it feels like a personal insult	2.65	1.885
At our firm, we are very interested in what others think about the Swedish venture capital industry	3.68	1.712
When people at our firm talk about the Swedish venture capital industry, we usually say 'we' rather than 'they'	4.40	1.709
The industry's successes are my successes	4.05	2.027
When someone praises the Swedish venture capital industry, it feels like a personal compliment	2.90	1.790
If a story in the media criticised the Swedish venture capital industry, we would feel embarrassed.	3.13	1.827

n =62

Cronbach Alpha = 0.892

Adapted from Mael and Ashforth (1992)

In addition to the measure of local industry identification, the degree of identification with specific industry communities was measured. In this case, the questions were not mutually exclusive, as identification with one group would not necessary exclude identification with other groups. To avoid issues of alternative interpretations of the term 'identification', the questionnaire provided a specific clarification of the meaning, stating that '*By 'identify' we mean that you consider yourself a part of, draw inspiration from, and model yourself on that particular community.*' In other words, use that community as a reference group for firm behaviour. The categories of communities were derived from the pilot studies, and only those considered most relevant to the present study were included. An 'other' category was included, although this option was not used by the respondents. The descriptive results for the identification questions are shown in Table 5.8.

Table 5.8: Identity Groups

To what extent do you identify with the following communities? By 'identify' we mean that you consider yourself a part of, draw inspiration from, and model yourself on that particular community.

	Mean	Std. Dev.
The Swedish Venture Capital Community	4.85	1.329
The Swedish Private Equity Community	3.58	2.013
The Global Venture Capital Community	3.82	1.815
The Global Private Equity Community	2.76	1.835
The US Venture Capital Community	3.24	2.178
The US Private Equity Community	2.44	1.843

Valid n = 62
1=not at all; 7 = to a great extent

The question of level of analysis was raised by Peteraf and Shanley (1997) in their theoretical treatment of strategic group identity, and the discussion is very relevant to this study. As they rightly point out, individual managers (here venture partners/managers) have cognitive capabilities, while firms do not. In the strategic group identity discussion, the reasonableness of equating these levels may be questioned. Yet, being restricted to the use of single respondents, and apart from the strictly theoretical aspects, it has not been possible to assess the degree to which the use of single respondents jeopardises the validity of the identity results. The assumption is that the respondents' answers also reflect identities at the firm level; however, particular caution is suggested in the inferring of results connected to the firm identity variable.

Firm Fundraising Strategy

The measure of active fundraising strategy had not been developed in prior studies, and was therefore operationalised as a combined score of two direct questions phrased as follows:

1. It would be positive for our firm if we could attract more funds from outside of Sweden.
2. We actively structure our firm to be attractive to foreign investors.

Control Variables

Previous studies focusing on predictors of venture capital strategy and management activities have identified a number of variables that need to be controlled for in the current study. These include: the size and age of the venture capital firm, the industry focus of the firm, and whether the firm is a corporate or non-corporate backed entity. Additionally, the institutional versus non-institutional nature of the source of funds also needs to be controlled for.

Size of the Venture Capital Firm

The considerable variance in the size of venture capital firms is an important factor linked to strategic investment behaviour. Size is, therefore, a critical control variable in this study. Previous research has shown specific effects of size on all of the identified strategic investment areas. Specifically, it has been shown that venture capital firms with a larger pool of capital under management generally invest in later stage ventures. The large venture capital firms have higher minimum and maximum investment levels. As the firms have grown, the number of professional staff does not generally increase proportionally (Fried and Hisrich, 1991). To manage this growth in investment size, firms make more late-stage investments where it is easier to invest large sums (Bygrave and Timmons, 1992; Elango et al., 1995).

Gupta and Sapienza (1992) further found that that venture capital firms with a larger pool of capital under management will prefer venture investments in a more diverse set of industries, and will prefer investment opportunities with a broader geographical scope than will other venture capital firms. This was hypothesised to result from: the need for a wider set of potential investment opportunities to match the bigger pool of capital; the dense communication links with other venture capital firms; the subsequent greater deal flow; and due to the proven success, the large venture capital firms may believe they have superior capabilities applicable across a wider set of investment opportunities.

In this study, the total funds under management are used as a measure of the firm's size. In the final sample, the range of values for funds under management was shown to be 11– 15 000 MSEK. The major-

ity of firms, however, had funds under management below 500 MSEK.

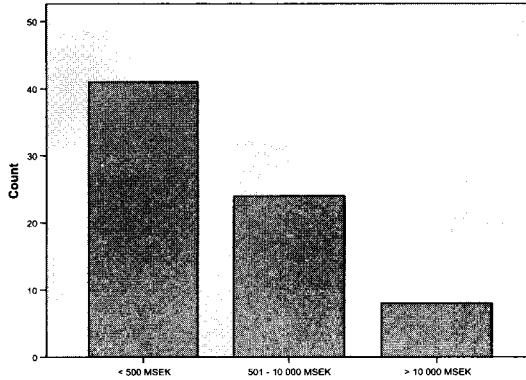


Figure 5.1: Sample Venture Capital Firm Size – Funds Under Management

The Institutional Nature of Funds

There is growing evidence that the nature of the limited partners - institutional versus non-institutional - is a significant variable in the behaviour of venture capital firms (Bygrave and Timmons 1992).

Institutional investors are considered to have altered the basic rules and terms governing venture funds, and transferred investment preferences to the (institutional) fund managers. Lead institutional investors have negotiating leverage with the general partners and, as a result of their lower risk tolerance, demand more reporting and advisory boards, earlier more frequent cash distribution, lower management fees, and minimum threshold returns. While the classification of 'institutional' can vary, in this study it includes banks, pension funds, insurance companies, and *other* financial institutions.

The Swedish venture capital association has detailed information on the source of funding by type of actor, which reveals that the 'institutional' actors including pension funds and insurance companies are a significant source of funds - not only for the larger buy-out actors.

Table 5.9: Finance Sources by Type of Investor

	Venture Capital	Buy-out
Pension Funds	43%	36%
Private Individuals	12%	17%
Insurance Companies	12%	-
Corporate	11%	-
Capital Market	7%	5%
Public Sector	6%	-
Fund-of-Funds	4%	21%
Other	2%	7%
Bank	2%	16%
Universities	2%	-

Source: SVCA Quarterly Reports 2006 www.svca.se

The type of limited partner was recoded as a dummy variable to reflect the presence of *institutional funds* and *non-institutional funds*. For the full sample, 27 of the 73 venture capital firms (37%) had some form of institutional funding.

Firm Age

Firm age is indicated by the year the firm was founded. The recoded firm age was employed to classify firms into three categories: (1) Firms established prior to 1996, the beginning of the rapid growth of the venture capital industry in Sweden; (2) firms established 1997-2001, the period of rapid growth culminating in the *IT-bubble*; and (3) those firms established after 2002, or *post-bubble* venture capital firms. The relative distribution of firms among the categories is shown in figure 4.2.

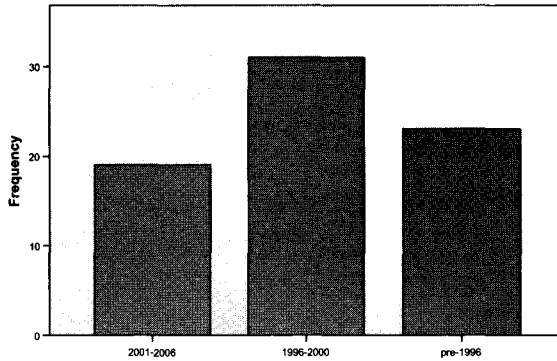


Figure 5.2: Sample Age Venture Capital Firm- Founding Year

Corporate Versus Non-Corporate Firms

Corporate venture capital firms, also known as captive firms, are those owned by corporations that have their own distinct strategic goals, usually investing in firms that further develop technology or applications that are owned by the corporation, or that are critical in some way to the corporation's strategy. While not all corporate funded venture firms follow the same approach (for example Apple computer fund in the US was explicitly established as not pursuing objectives against the interest of the entrepreneurial firms), support has been found that the investment strategy of firms is related to the corporate versus non-corporate status of the venture capital firm. Gupta and Sapienza (1992) found that US corporate venture capital firms preferred less industry diversity, but broader geographical scope than US non-corporate venture capital firms. It has also been suggested that non-corporate firms are more likely to invest in early-stage deals than the corporate firms (Beecroft, 1994). While a review of the Swedish respondents used in this study revealed that there were no pure corporate firms in the sample, apart from those financed through prominent banks, the possible effect of structure was controlled for by a dummy variables that separated limited firms from those with a partnership structure.

Industry Focus

The industry question of interest with regard to firm strategy is the diversification question. However, it is recognised that there may be differences in the management of a portfolio firm depending on its industry classification. The most obvious distinction is the required investment period for differing sectors. The most relevant distinction in this respect are those firms focusing on biotechnology and those with a focus on IT (Ohlsson, 2006); these are two of the most prevalent investment foci for venture capital firms in Sweden (Cetindamar and Jacobsson, 2003). To control for this effect, all firms operating in either of these industries were coded with dummy variables.

Statistical Techniques

As the seven hypotheses tested in the present study make use of varying types of independent and dependent variables, several statistical techniques had to be used. Most of the statistical tests employed were specific regression variants. A short description of each of the techniques follows below.

Ordinal Regression

Regression is a widely used technique that can be employed to investigate the effect of one or more predictor values on the outcome variable. Where the dependent variables are non-metric ordinal scales (the values can be ranked, yet the real distance between categories is unknown), non-parametric statistics are the most conservative choice (Gibbons, 1993a). In particular, ordinal regression is a procedure that can replace the linear regression model when the bias from applying interval assumptions to ordinal data is to be avoided (Winship and Mare, 1984). As shown in this current study, the ordinal regression is considered an appropriate method when the use of a Likert scale reflects the idea that there is a latent, continuously distributed random variable representing 'propensity

to agree' (Dayton and Moffatt, 2002)²⁵. Using ordinal regression retains the inherent ordinality of the data, avoiding the loss of information that occurs when the outcomes are treated as nominal, and avoids the unjustified quantification of category differences created when ordinal data is treated as continuous (O'Connell, 2005; Scott et al., 1997).

The SPSS ordinal regression procedure or PLUM (Polytomous Universal Model) is an extension of the general linear model to ordinal categorical data (also known as a proportional odds model). The method considers the probability of an event and all events that are ordered before it, thereby taking into account the ordering of the categories²⁶.

Unlike linear regression, the main interest in ordinal regression is not the standardised regression coefficients (used to compare the relative importance of individual independent variables); instead, it is the sign (plus or minus) of individual regression coefficients. The sign indicates the direction (positive or negative) of the relationship between the explanatory and outcome variables. A negative coefficient indicates that lower scores are more likely; a positive coefficient indicates that higher scores are more likely. An association with a higher score means smaller cumulative probabilities for lower scores, since they are less likely to occur. Probit and Logit models are reasonable choices of link function when the changes in the cumulative probabilities are gradual (Aldrich and Nelson, 1984); whereas, a form of the log-log function is better if there are either lower or higher categories that are more probable. In the current study, Logit models were the favoured choice as a high probability of higher or lower variables could not be found.

²⁵ The interpretation of a linear model is the number of units that the dependent variable is expected to change in response to a one unit change in the explanatory variable: an interpretation that is inappropriate to ordinal data (Daykin and Moffatt, 2002).

²⁶ The ordinal logistic model for a single independent variable is:

$$\ln(\theta_j) = \alpha_j - \beta X \text{ (Where } j \text{ goes from 1 to the number of categories minus 1)}$$

Multi-nomial Regression

The ordinal regression model is built strictly on the model assumption of parallel lines (i.e. equal regression coefficients) for all corresponding outcome categories. In cases where the ordinal regression indicates that the regression coefficients are not the same for all categories, a multi-nomial regression should be selected as an alternative method. This model ignores any ordering of the values of the dependent value, and estimates coefficients that capture differences between all possible pairs of groups.

Binomial Logistic Regression

Binomial logistic regression is a specialised form of regression that is formulated to predict and explain a binary categorical variable (when the dependent is a dichotomy) and the independents are of any type (Menard, 2002). The method estimates the probability of an event occurring by applying the maximum likelihood estimation after transforming the dependent variable into a Logit variable (the natural log of the dependent variable occurring or not). There are many similarities of binary logistic regression to OLS, but the logistic regression does not assume linearity of relationship between the independent variables and the dependent, does not require normally distributed variables, and does not assume homoscedasticity (Hair et al., 1998). Therefore, it generally has less stringent requirements.

Complex Anova - ANCOVA

A complex ANOVA or factorial Analysis of Covariance (ANCOVA) is essentially a hierarchical regression. It shows the effect of an independent variable on the variance between group means, after the effect of the covariates has been removed (Rutherford, 2001). Analysis of variance (ANOVA) and analysis of covariance (ANCOVA) are similar; both procedures determine the amount and significance of mean group differences. However, the ANOVA cannot statistically reduce or correct for pre-existing differences between the groups. An assumption for ANCOVA is that the variables are multivariate normal. As there is no direct test for this assumption, the univariate normality of each variable was tested, including split file analyses. Significant results were corrected

by data transformation using the Blom proportion estimation formula²⁷. ANCOVA is used to test the main and interaction effects of categorical variables on a continuous dependent variable. The covariates selected are other continuous variables that co-vary with the dependent variable. This co-variance assumption must be tested prior to using the covariates in the model. A limited number of covariates should be used as the statistical power is reduced by the addition of each additional covariate. ANCOVA is particularly suited to multilevel analysis (Firebaugh, 1979), as the independent variable can be an aggregate and the dependent variable can be an individual level characteristic. Cross-level inference is possible and straightforward, as argued by Mossholder and Bedeian (1983):

If after adjusting initial aggregate effects for individual level variates there remains a significant amount of variance explained by the aggregate measure, one has evidence that that a supra-individual process has influenced individual level activity (Mossholder and Bedeian, p. 550).

Arguably, classical variance tests - including the ANCOVA technique - require the same stringent parametric data characteristics as does the traditional regression analysis (Gibbons, 1993a). Data such as that obtained from seven-point Likert scales are only comparable in terms of relative magnitude rather than absolute magnitude. Purists would argue that the condition of a continuous dependent variable is not met by the data in the present study. However, it is a well-accepted approach to treat Likert scale data as if they were interval scales. This is particularly justifiable when the purpose of the technique is to test for group differences. Loss of information is inevitable; however, when using scales of 5-points or higher, particularly when these scales are averaged as in the case of constructs²⁸, the metric quality is quite similar to the more exacting non-parametric techniques (Srinivasan and Basu, 1989). Using this evidence of comparability between metric and non-metric approaches, it was determined that the ANCOVA approach was a sufficiently suitable technique.

²⁷ This procedure creates a new ranking variable based on proportion estimates using the formula $(r-3/8) / (w+1/4)$: where w is the sum of the case weights and r is the rank.

²⁸ Srinivasan and Basu calculate that when a 7-point scale is used, data quality loss is less than 5%. This is reduced further if the individual questions are averaged in constructs.

Summary

This chapter has outlined the methodology used for data collection, as well as the operationalisation of the hypotheses developed in chapters 2 and 3. The data collection method was an online questionnaire that included 145 individual questions, and from which the response rate of 65% of Swedish venture capital firms (62 of 95 active firms) was obtained. The operationalisation of the variables included the dependent variables of investment strategy (including sector, stage and geography), management practices and management attitudes, as well as the independent variables geographical source of funds, firm identity, the firm fundraising strategy, and a set of control variables (size, institution, age, corporate, and industry type).

Finally, the statistical methods of ordinal regression, multi-nominal regression, binomial regression, and ANCOVA were described and presented as the most appropriate methods for hypothesis testing. The following chapters now proceed to test the main hypotheses of the thesis.

CHAPTER 6

TESTING SEVEN HYPOTHESES

This chapter presents the empirical results from testing the seven hypotheses established in the previous chapters. Following a short introduction that presents some descriptive data, the issues of foreign limited partners' influence on investment strategy, management activities, and management attitudes are dealt with sequentially. The results from these first five tested hypotheses suggest significant influences and associations with venture capital firm's activities, although results are sometimes mixed with respect to the full range of investigated effects. The results are particularly strong concerning the effect of foreign funds on the specialisation choice in investment strategy and in strategic versus operational involvement in management activities. The pattern of results tells us the extent of control that can be attributed to foreign limited partners. Marginal or no effects are found in the area of fund sources and stage preferences. The second part of this chapter tests the two additional hypotheses pertaining to active structuring and reference identity.

Preface to Hypotheses Testing

An assumption of the hypotheses development of the preceding chapters is that there will be a direct or indirect influence of limited partners on the activities of the venture capital firms. Before turning to the observed impact of foreign limited partners on the venture capitalists firms' operations, it may be of some introductory interest to first take a look at how the venture capitalists perceive the degree of influence in selected areas.

Table 6.1 shows the venture capital firms' own assessment of the degree to which their actions are generally impacted on by their limited partners. The results show that the perceived influence of limited partners is not equivalent between the geographical origins of the limited partners. Firms with foreign limited partners report significantly higher

impact levels that those with only Swedish sourced funding in multiple areas that include the selection of the stage of investment, the length of the investment holdings, the use of co-investors and syndication models, the extent of due diligence prior to investment, and the reporting requirements imposed on the portfolio firms.

Table 6.1: Perceived Influence of Limited Partners among Sample Firms.

(from 1 = not at all, to 7 = to a very large extent)	Pure Swedish Funds		With Foreign Funds	
	Mean	Std. Dev	Mean	Std. Dev
Geographical Region	4.84	2.145	5.68	1.635
Sector	4.14	2.152	4.90	1.447
Contracted Terms	4.14	1.706	4.95	1.276
Length of Holding	4.09	2.080	5.80	1.056
Reporting Requirements	4.02	2.085	5.10	1.447
Stage of Investments	3.98	1.874	6.25	1.164
Due Diligence	3.70	2.018	4.75	1.713
Interaction Frequency	3.52	1.798	3.90	1.683
Use of Milestone Financing	3.39	1.895	3.85	1.694
Type of Exit	3.34	1.751	4.15	2.134
Use of Syndication	3.23	1.723	4.65	1.089

While this data provides an initial indication of the particular influence from foreign limited partners, testing the hypotheses requires an examination of how the presence of these partners has systematically influenced the actual activities of the sample venture capital firms. In the following sections, the results of the various models used to test the three hypotheses concerning investment strategy; sector specialisation, stage investment, and geographical investment focus; will be addressed sequentially.

Investment Strategy

Hypothesis 1: Venture capital firms with foreign limited partners will display higher degrees of investment strategy specialisation, and reduced sector diversity of their portfolio.

In testing the first hypothesis, the dependent variable *sector* is a measure of the degree of sector specialisation in the firm's investment focus. The results of the ordinal regression, where the main variable of interest is the geographical source of funds or *foreign*, are shown in Table 6.2. Control variables of *type*, *industry*, *institutional*, *age* and *size* were added and removed in an exploratory fashion to determine whether the results remained, particularly given the correlations between some of the control variables (Table 6.3).

Table 6.2: Limited Partner Influence on Sector Specialisation

		Estimate	Std. Error	Wald	Sig.
	Industry	-0.548	0.391	1.958	0.162
	Type	-0.008	0.485	0.000	0.986
	Age	0.184	0.319	0.332	0.564
Location	Size	-0.171	0.387	0.196	0.658
	Institutional	0.112	0.569	0.039	0.844
	[Foreign=0]	1.845	0.647	8.132	0.004
	[Foreign=1]	0(a)	.	.	.
Chi-Square	16.543***				
Pseudo R-Square	0.221				
- Nagelkerke					
	Industry	-0.643	0.396	2.632	0.105
	Type	-0.021	0.485	0.002	0.965
	Age	0.164	0.317	0.268	0.604
Location	Size	-0.222	0.388	0.327	0.567
	Institutional	-0.154	0.547	0.080	0.778
	[US=0]	1.544	0.660	5.472	0.019
	[US=1]
Chi-Square	13.361***				
Pseudo R-Square	0.183				
- Nagelkerke					
Link Function:	Logit.				

Most surprisingly, the tests revealed no significant effect of the specific control variables of age or size on the degree of sector specialisation. The effect of foreign investors was tested in two models - one including all foreign investors, and one for US investors only. Both models showed support for Hypothesis 1 and the significance of the result was independent of the number of control variables used. The positive coefficient estimate indicates that the higher the levels of non-foreign funding, the more likely the venture capital firms display greater sector diversity in their investments in portfolio firms.

Table 6.3: Control Correlations

	Industry	Type	Age	Size
Type	-.221			
Age	.087	.134		
Size	.101	-.267(**)	.260(**)	
Institutional	.217	-.283(**)	-.093	.382(***)

** Correlation is significant at the 5% level (2-tailed).

*** Correlation is significant at the 1% level (2-tailed).

Hypothesis 2: Venture capital firms with foreign limited partners will display a greater focus on later stage portfolio firms than venture capital firms without foreign limited partners.

Similar to the first hypothesis, the second hypothesis pertaining to *stage* was tested using ordinal regression. The results for the control variables demonstrate fairly strong support for the results of previous studies: that the size of the venture capital firm is the most significant predictor for the stage of the portfolio investments (see Table 6.4). The positive coefficient estimate indicates that the larger the venture capital firm, the more likely the investment focus is on later stage investments. Additionally, significant results were also obtained for industry and type; whereas, age narrowly fails significance at the 5 percent level. Conversely, the results give no support for Hypothesis 2, as neither the foreign investor variable nor the US investor variable showed any significant effect on the stage variable. Thus, hypothesis 2 was not supported.

Table 6.4: Limited Partner Influence on Stage

		Estimate	Std. Error	Wald	Sig.
Location	Industry	-1,003	0.410	5.993	0.014
	Type	1.245	0.554	5.056	0.025
	Age	0.700	0.363	3.727	0.054
	Size	1.630	0.481	11.462	0.001
	Institutional	1.568	0.674	5.415	0.020
	[Foreign=0]	-0.014	0.662	0.000	0.983
	[Foreign=1]	0(a)	.	.	.
Chi-Square	39.097***				
Pseudo R-Square - Nagelkerke	0.456				
Location	Industry	-1.011	0.412	6.020	0.014
	Type	1.254	0.554	5.123	0.024
	Age	0.703	0.360	3.812	0.051
	Size	1.660	0.485	11.700	0.001
	Institutional	1.597	0.649	6.047	0.014
	[US=0]	0.138	0.710	0.038	0.846
	[US=1]	0(a)	.	.	.
Chi-Square	39.138***				
Pseudo R-Square - Nagelkerke	0.456				
Link Function: Logit.					

Hypothesis 3: Venture capital firms with foreign limited partners will display an investment focus on a multiple country geographical region.

Hypothesis 3 is based upon a binary outcome, being whether the investment focus is on the *Nordic* region or not; the alternative encompasses all firms with a focus on either a smaller geographical region (being the local area or Sweden), or a larger geographical region (Europe outside of the *Nordic* region or outside of Europe). Due to the binary nature of the dependent variable, a binary logistic regression was used to test Hypothesis 3. Two methods were used in the data analysis: the forced entry model and the stepwise forward selection model. The independent variables *foreign* investor and *US* investor were entered into separate models to determine if the predictive ability of either grouping of investors was stronger. Control variables were the same as those employed in the previous analyses.

The results of the full models are presented in Table 6.5. There are multiple methods for entering the predictor variables into the regression

model and, unless the variables are completely uncorrelated the order and method chosen will have an impact on the results. To this extent, in addition to the forced entry and stepwise forward selection models, variation in the order of the variables was tried in multiple runs to ensure that the results were robust irrespective of the variable entry order. To present the results for all variables, the results for the forced entry method are shown here, in which the predictors are forced into the model simultaneously²⁹. The stepwise forward selection model gave very similar results. For both models, the results for the main variables with respect to the foreign funds and US funds remained consistent, independent of the order or the number of control variables entered.

The results are not significant in the model using the foreign funds variable, however when only the US funds were considered the results are significant at the 5 per cent level, providing support, albeit limited, for Hypothesis 3. In both cases the direction of the relationship is the same. With respect to the control variables, size ($p < 0.001$) and institutional ($p < 0.01$) are strong predictors of an investment strategy that is specifically focused on the Nordic region.

²⁹ A well-accepted method is to include meaningful variables in the model based on the order of their importance. After the initial analysis, the variables that were statistically redundant are removed, and the regression is repeated.

Table 6.5: Limited Partner Influence on Geography

	B	S.E.	Wald	Sig.	Exp(B)
Size	2.237	0.662	11.419	0.001	9.364
Age	0.965	0.513	3.542	0.060	2.626
Institutional	2.791	0.939	8.839	0.003	16.297
US Funds	-2.595	1.091	5.654	0.017	0.075
Type	-0.434	0.778	0.311	0.577	0.648
Industry	-1.389	0.732	3.605	0.058	0.249
Constant	-5.967	1.519	15.426	0.000	0.003
<i>Model Chi-Square</i>	41.596***				
<i>Nagelkerke R Square</i>	0.588				
Size	1.884	0.580	10.568	0.001	6.582
Age	0.852	0.481	3.140	0.076	2.345
Institutional	2.385	0.880	7.345	0.007	10.864
Foreign Funds	-1.285	0.888	2.092	0.148	0.277
Type	-0.241	0.724	0.111	0.739	0.786
Industry	-0.788	0.602	1.713	0.191	0.455
Constant	-5.441	1.421	14.661	0.000	0.004
<i>Model Chi-Square</i>	36.810***				
<i>Nagelkerke R Square</i>	0.536				

Overall, there is mixed support for hypotheses 1-3, with a particularly strong influence from foreign limited partners on the sector diversity of the venture capital firms' portfolios.

Management Activities

Hypothesis 4: Venture capital firms with foreign limited partners will display management activities that are different to management activities of venture capital firms without foreign limited partners.

Activities

The activities of the venture capital firms were measured on a 7-point scale to determine to what degree the specific venture capital value-added activities were undertaken by the venture capital firm or, alternatively, the portfolio firm.

Previous studies on venture capital activities have identified correlations between the activities performed and certain structural elements of the venture capitalist and the portfolio firm. Therefore, before investi-

gating the effect of the source of funds on management activities, the relationship of the control variables to the various activities was explored (Table 6.6). This procedure made it possible to identify control variables that were required as covariates when comparing the means for the source of funds variable.

Hypothesis 4 is concerned with whether the sources of funds have an impact of the management activities undertaken by the venture capital firm and, therefore, the analysis explores if there is a difference in the means between venture capital firms with foreign and/or US funds and those without - after the impact of strategic (sector, stage and geography) and structural (e.g. age, size) variance has been removed. The difference in means represents greater or lesser involvement by the venture capital firms in each of the main venture capital value-added activities. Hypothesis 4 was tested using ANCOVA³⁰. While arguably the dependent variables of management activities are not continuous variables, the use of a 7-point scale and the focus of differences in means justify the decision that this was the most appropriate method, and that it would yield reliable results.

The results of the analysis (Table 6.7) show that, for a majority of the management activities, there are no significant differences between the groups based upon source of funding. There were, however, significant results with respect to four specific activities. *Development of initial business strategy* is undertaken to a significantly higher degree by firms that do not have foreign funding, even after the effect of sector diversity of investments has been controlled for ($p < 0.01$). *Soliciting customers/distributors* is also carried out to a greater degree by those firms without foreign sourced funds; the same applies when those firms are compared to firms with funds stemming specifically from the United States ($p < 0.05$). The *formulation of marketing plans* is an activity in which the firms with foreign-sourced funds partake to a greater extent than those with only local funds ($p < 0.01$). Venture capital firms with US investors participate less in the *management of crisis and problems* ($p < 0.05$) within the port-

³⁰ The assumption of ANCOVA of homogeneity of regression slopes was examined for those variables that had covariates. The results were not significant, indicating that the assumption was met in the ANCOVA model, meaning that the relationship between the dependent variable and the covariate was the same for both groups.

Foreign Indirect Investment

folio companies than the firms with only Swedish-sourced funds.

Table 6.6: Correlations Between Venture Capital Activities and Control Variables

	Industry	Type	Age	Size	Sector	Stage	Geography	Institutional
Search for Management	0,000	-0,101	0,158	0,146	-0,056	0,252	0,069	0,059
Select Management	0,065	-0,103	0,014	0,151	-0,075	0,235	0,075	0,062
Negotiate with Man-	0,090	-0,007	-0,152	0,030	-0,013	0,006	0,240	-0,082
Negotiate with Em-	-0,090	,364(***)	-0,174	-0,217	-0,108	0,114	-0,004	0,161
Obtain Debt	0,117	0,007	0,164	0,055	0,024	-0,124	0,149	-0,163
Obtain Equity	0,158	-0,003	,268(**)	0,081	0,141	-0,008	0,007	-0,175
Initial Strategy	0,009	0,032	0,032	0,134	-,412(***)	0,077	0,206	,255(**)
Ongoing Strategy	0,142	-,310(**)	0,117	,366(***)	-0,216	-0,087	0,212	0,006
Select Suppliers	-0,082	0,098	0,088	0,227	-,287(**)	0,217	0,088	0,196
Solicit Customers	-0,114	0,166	0,050	0,099	-0,212	0,151	-0,028	0,153
Replace Management	0,031	0,034	0,208	0,177	-0,074	0,155	-0,087	-0,095
Develop Product	-0,117	0,225	-0,045	-0,073	-0,111	0,103	0,030	0,074
Develop Production	-0,091	0,216	-0,103	-0,110	-0,172	0,021	-0,029	0,098
Marketing Plans	-0,017	0,105	-0,076	-,326(**)	0,144	-0,232	-0,200	-,275(**)
Motivate	0,085	0,113	-0,095	0,047	-0,152	0,031	0,127	0,098
Monitor Financials	0,237	0,009	0,035	0,239	-0,075	0,097	-0,006	0,178
Monitor Operations	0,090	0,025	0,098	,323(**)	-0,072	0,209	0,100	0,187
Manage Problems	-0,081	0,109	0,009	0,094	-0,203	0,102	-0,022	0,015

*** Correlation is significant at the 0.01 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed)

Table 6.7: Limited Partners' Influence on Venture Capital Firm Activities

	Swedish only			US only			Foreign			Size	Age	Sector	Type	Inst.
	Mean	Std. Dev.	F	Mean	Std. Dev.	F	Mean	Std. Dev.	F					
Search for Management Team	3.30	1.322		3.40	1.242	0.032		3.47	1.124	0.263				
Interview and Select Management Team	3.41	1.106		3.80	1.146	0.940		3.89	1.100	2.565				
Negotiate Employment Terms with Top Level Management	3.48	1.355		3.13	1.302	0.886		3.26	1.240	0.348				
Negotiate Employment Terms with Employees	5.91	1.326		6.20	1.373	0.946		6.16	1.259	1.499				10.357***/ 9.660***
Obtain Alternate Debt Financing	3.66	1.363		3.27	1.335	1.130		3.42	1.305	0.415				
Obtain Alternate Equity Financing	2.61	1.298		2.40	1.682	0.624		2.47	1.541	0.592				2.002**/ 6.805**
Development of Initial Business Strategy	3.39	1.146		4.47	0.834	1.403		4.68	0.885	8.011***				6.617***/ 3.896**
Formulate Ongoing Business Strategy	3.82	1.040		4.00	0.926	0.274		4.00	0.816	0.592				3.479**/ 3.710**
Select Vendors /Suppliers/Equipment	5.07	1.208		5.87	0.743	2.239		5.79	0.787	2.056				2.617/ 2.196
Solicit Customers/Distributors	4.73	1.301		5.47	1.356	3.065**		5.47	1.264	4.445**				
Replace Management	2.68	1.052		2.87	1.407	0.109		3.00	1.453	0.958				
Develop Actual Product/Service	6.00	0.937		6.13	1.302	0.192		6.11	1.197	0.138				
Develop Production/Service	5.91	1.053		6.00	1.414	0.137		5.89	1.329	0.002				
Formulate Marketing Plans	5.27	0.949		3.80	1.146	10.545***		3.84	1.119	15.599***				1.419/ .838
Motivate Personnel	5.00	1.525		5.20	1.082	0.078		5.37	1.065	0.912				
Monitor Financial Performance	3.50	0.952		3.87	1.125	1.623		3.79	1.032	1.166				
Monitor Operating Performance	3.64	1.014		4.00	1.000	0.003		4.05	1.079	0.165				5.860**/ 4.860**
Manage Crisis and Problems	3.70	1.391		4.40	0.910	3.690**		4.21	0.918	2.108				

*** p is significant at the 1% level
 ** p is significant at the 5% level

1= only venture capitalist; 7= only portfolio company

The correlations of Table 6.6 were employed in order to reveal any influences from the control variables. The results suggest that the control variable that most frequently related to specific activities was the size of the venture capital form. *Size* correlated positively with *formulating ongoing business strategy* and *monitoring operations*, meaning that the larger the size, the less the activity was undertaken by the venture capitalist and the more by the portfolio company. *Size* further correlated negatively with *formulating marketing plan*, meaning that the larger the firm, the more involved the venture capitalist was in this activity.

The *type* of firm correlated positively with the degree to which the venture capitalist *negotiated employment terms with employees*, and negatively with *formulating ongoing business strategy*.

The *degree of sector specialisation* of the venture capital firm correlated negatively with both the degree to which the venture capital firm *developed the initial business strategy*, and *selected vendors/suppliers and equipment*.

The *age* of the venture capital firm was positively correlated with the *obtaining of alternative equity finance for the portfolio firms*, and the *institutional* nature of the funds was positively correlated with *ongoing strategy formulation* and negatively correlated with the *formulation of marketing plans*.

Roles

Hypothesis 4 was additionally tested using the more generalised concepts of venture capitalist roles. The importance of each of the previously identified roles was measured on a 7-point scale. Again, it was determined that, as the main focus of the analysis was to determine whether there were significant differences in the importance of differing roles across firms with and without foreign fund participation, the data were treated as continuous variables for the purposes of ANOVA and ANCOVA statistical treatments.

To determine the existence of covariates, a bi-variate correlation was run against the control variables (Table 6.8). The results of the ANCOVA analysis are presented in Table 6.9. Albeit there are very few differences pertaining to the source of funds, there are, in fact, two interesting ones. First, the *mentor* role is significantly more important to

those firms that only have Swedish-sourced funding as compared to those that have foreign-sourced funding ($p < 0.01$). Additionally, the role of *sounding board* is similarly more important to those firms that only have Swedish-sourced funding as compared to those with foreign funding ($p < 0.05$). Both of these differences are lost when the comparison is between the group of firms with some degree of US funds and those with only Swedish funds; yet, the direction of the relationship remains unchanged.

Table 6.8: Correlations Between Venture Capital Roles and Control Variables

	Industry	Type	Age	Size	Sector	Stage	Geography	Institutional
Sounding Board	0.043	0.198	0.074	-0.074	-0.034	-0.214	-0.144	-0.124
Financier	0.061	-0.087	0.182	0.232	-0.061	0.077	0.353***	-0.045
Advisor	0.025	0.210	-0.309**	-0.176	0.024	0.113	-0.105	-0.076
Friend	0.136	0.072	-0.213	-0.074	0.078	-0.300**	-0.166	-0.177
Mentor	0.072	0.204	-0.048	-0.261**	0.189	-0.257**	-0.247	-0.226
Professional Contacts	0.137	-0.087	-0.022	0.049	-0.017	0.239	0.044	0.057
Industry Contacts	0.239	-0.146	0.106	0.187	0.110	0.030	0.146	-0.046
Recruiter	0.132	0.015	-0.048	-0.050	-0.052	-0.042	0.042	0.040

*** Correlation is significant at the 1% level (2-tailed)

** Correlation is significant at the 5% level (2-tailed)

In terms of the control variables, the results presented in Table 6.8 indicate: the role of *financier* is positively correlated with *geography*; the role of *advisor* is negatively correlated with the *age* of the venture capital firm; and the role of *friend* is negatively correlated with the strategic investment *stage* that is favoured by the venture capital firm. Additionally, the role of *mentor* is negatively correlated with both the *size* and the strategic investment *stage* of the venture capital firm.

Overall, the tests showed narrow support for Hypothesis 4, and it seems that management activities and roles are influenced by the existence of foreign limited partners in the venture capital firms in a limited number of areas.

Table 6.9: Limited Partners' Influence on the Importance of Venture Capital Roles

	Swedish		US only			All Foreign			Size	Age	Stage	Geography
	Mean	Std. Dev.	Mean	Std. Dev.	F	Mean	Std. Dev.	F				
Sounding Board	5.86	1.025	5.47	1.246	0.766	5.32	1.416	2.989**				
Financier	5.61	1.017	5.53	1.302	0.440	5.63	1.257	0.080				8.885*** / 8.660***
Advisor	6.61	0.618	6.67	0.617	0.358	6.63	0.684	0.096		6.626*** /		
Friend	4.68	1.095	4.47	0.990	0.221	4.26	1.046	0.401			5.968*** / 4.562**	
Mentor	5.57	1.108	4.67	1.113	1.534	4.42	1.170	8.695***	0.575/ 0.008		1.209/ 1.101	
Professional Contacts	6.23	0.831	6.27	0.961	0.055	6.21	0.855	0.005				
Industry Contacts	5.98	0.821	5.93	0.704	0.051	5.68	0.946	1.542				
Recruiter	5.98	1.000	6.00	1.309	0.141	5.74	1.368	0.610				

*** p is significant at the 1% level

** p is significant at the 5% level

Management Attitudes

Hypothesis 5: Venture capital firms with foreign limited partners will display management attitudes that are different to management attitudes in the absence of foreign limited partners.

Hypothesis 5 is concerned with differences in management attitudes between groups of venture capital firms, specifically those with and without foreign limited partners. Management attitudes have been captured by seven constructs and cover attitudes toward portfolio firms, entrepreneurship and entrepreneurs in general, as well as attitudes to its own role as venture capitalists. The independent predictors *foreign* and *US* were run in separate models to determine whether one or the other - or, in fact, both - had a significant effect on the attitude constructs.

One of the major decisions in ordinal regression is deciding what explanatory variables to include in the model. The obligation is to use theory, intuition, and experience to select a subset of the important or significant variables in the model (Chen and Hughes, 2004). The model construction procedure involved the use of complete and reduced models. In the cases where the assumption of parallel lines was not met, the model was discarded and a multinomial regression was used as an alternative method. The model fitting statistics - in this case the Pseudo R-squares - were used to assess the overall models for appropriateness. To assist in the identification of significant explanatory variables, a correlation analysis was run to determine which of the control variables correlated with the constructs. Significant correlations were included in each of the specific ordinal regression models as covariates.

The results of the ordinal regressions are presented in Tables 6.10-6.14, showing the results for both *Foreign* and *US* as explanatory variables. Two of the models were unsuitable, and were discarded for this part of the analysis. The reason for this differed for the two constructs concerned - the Pseudo R-squared was too low for the construct *decision type*; the overall model was not significant for the construct *entrepreneur attitude*. The results for the remaining five constructs - *independence*, *confidence*, *agency*, *hierarchy*, and *responsibility* - show mixed support for Hy-

pothesis 5. Strong support was found for the proposition that the geographical source of funds is associated with venture capitalist attitudes in the two constructs *responsibility* and *agency* ($p < 0.001$; $p < 0.001$). Some support was found for the association between the geographical source of funds and the construct *confidence* (Table 6.11), where the results were significant when the full sample of *foreign funds* was used ($p < 0.05$). When only firms with some portion of *US-sourced funds* were used in the model, no significant results were obtained. For the constructs *independence* (Table 6.10) and *hierarchy* (Table 6.14), there were other stronger and significant explanatory variables than the source of fund variable. For *independence*, the strategic investment *stage* ($p < 0.05$) was the most relevant variable. For the construct *hierarchy*, the *type* ($p < 0.05$) of venture capital firm (company versus partnership) was primarily associated with the construct.

Table 6.10: Limited Partners' Influence on Management Attitudes: Independence

		Estimate	Std. Error	Wald	Sig.
Location	Stage	-0.543	0.210	6.670	0.010
	[Foreign=0]	0.187	0.522	0.129	0.720
	[Foreign=1]	0(a)	.	.	.
Chi-Square	8.333***				
Pseudo R-square: Nagelkerke	0.129				
Location	Stage	-0.528	0.208	6.443	0.011
	[US=0]	0.406	0.569	0.510	0.475
	[US=1]	0(a)	.	.	.
Chi-Square	8.707**				
Pseudo R-square: Nagelkerke	0.135				

Link function: Logit.

Table 6.11: Limited Partners' Influence on Management Attitudes: Confidence

		Estimate	Std. Error	Wald	Sig.
Location	Size	-0.694	0.426	2.657	0.103
	Stage	-0.040	0.224	0.031	0.859
	Geography	-0.440	0.211	4.356	0.037
	Institutional	-0.296	0.549	0.290	0.590
	[Foreign=0]	1.356	0.643	4.446	0.035
	[Foreign=1]	0(a)	.	.	.
Chi-Square	27.192***				
Pseudo R-Square - Nagelkerke	0.364				
Location	Size	-0.781	0.424	3.398	0.065
	Stage	-0.039	0.224	0.030	0.863
	Geography	-0.418	0.211	3.944	0.047
	Institutional	-0.543	0.519	1.093	0.296
	[US=0]	0.950	0.638	2.217	0.136
	[US=1]	0(a)	.	.	.
Chi-Square	24.552***				
Pseudo R-Square - Nagelkerke	0.335				

Link Function: Logit.

Table 6.12: Limited partners' Influence on Management Attitudes: Responsibility

		Estimate	Std. Error	Wald	Sig.
Location	Size	0.029	0.423	0.005	0.945
	Stage	-0.428	0.234	3.349	0.067
	Geography	-0.161	0.208	0.601	0.438
	Institutional	-0.434	0.560	0.601	0.438
	[Foreign=0]	2.379	0.723	10.837	0.001
	[Foreign=1]	0(a)	.	.	.
Chi-Square	31.166***				
Pseudo R-Square - Nagelkerke	0.406				
Location	Size	-0.011	0.422	0.001	0.979
	Stage	-0.420	0.233	3.240	0.072
	Geography	-0.117	0.209	0.312	0.576
	Institutional	-0.887	0.535	2.748	0.097
	[US=0]	2.562	0.759	11.397	0.001
	[US=1]	0(a)	.	.	.
Chi-Square	31.932***				
Pseudo R-Square - Nagelkerke	0.414				

Link Function: Logit.

Table 6.13: Limited Partners' Influence on Management Attitudes: Agency

		Estimate	Std. Error	Wald	Sig.
Location	Geography	0.249	0.189	1.724	0.189
	[Foreign=0]	-1.946	0.556	12.237	0.000
	[Foreign=1]	0(a)	.	.	.
Chi-Square	16.086***				
Pseudo R-Square - Nagelkerke	0.234				
Location	Geography	0.255	0.189	1.820	0.177
	[US=0]	-2.047	0.602	11.578	0.001
	[US=1]	0(a)	.	.	.
Chi-Square	15.610***				
Pseudo R-Square - Nagelkerke	0.228				

Link Function: Logit.

Table 6.14: Limited Partners' Influence on Management Attitudes: Hierarchy

		Estimate	Std. Error	Wald	Sig.
Location	Type	1.144	0.471	5.895	0.015
	[Foreign=0]	0.215	0.487	0.194	0.660
	[Foreign=1]	0(a)	.	.	.
Chi-Square	6.690**				
Pseudo R-Square - Nagelkerke	0.102				
Location	Type	1.210	0.469	6.645	0.010
	[US=0]	-0.370	0.522	0.501	0.479
	[US=1]	0(a)	.	.	.
Chi-Square	6.960**				
Pseudo R-Square - Nagelkerke	0.106				

Link Function: Logit.

There is mixed support overall for Hypothesis 5, as it seems that limited partners' influence on management attitudes is selective and specifically found in the area of *responsibility*, where the sample firms with foreign funding display a lower belief in their responsibility for the wellbeing and training of the individuals in their portfolio firms; and *agency*, where the sample firms with foreign funds expressed a higher belief in the importance of the contractual and adversarial nature of the venture capitalist and portfolio firm relationship.

Testing additional Hypotheses: Active Structuring and Identity Reference

The first part of this chapter addressed the impact of the limited partners on venture capital firms (Hypothesis 1-5). This second part of the chapter provides the testing of the additional two hypotheses. The pilot studies indicated that there were at least two additional variables (largely overlooked in the venture capital literature) that may be important to the investment strategy, management activities, and management attitudes of the venture capitalists. These variables relate to the actions and orientation of the venture capitalists. First, the decision to actively become attractive to foreign limited partners; secondly, the choice of reference group, or identity that the venture capital firm emulates as the most appropriate. The empirical tests provide strong results that venture capitalist involvement with portfolio management is different when actively structuring, and also between the firms' expressed identity reference and their choices regarding management activities and management attitude orientations. The two variables: *active structuring* and *identity* are specific to the venture capital firm themselves. In the model, the two variables are, in fact, mediating the effect of the limited partners in the venture capitalist decisions of investment strategy, management activities, and management attitudes in a similar way to the more established control variables that were specified in the model. Because these two variables were not found in previous literature on venture capital, they have been treated here as independent variables to ascertain whether the limited pilot study observations could be verified on the larger sample.

Active Structuring

H6: Firms that are actively structuring its operations to attract foreign funds will display (a) investment strategies, (b) management practices and (c) management attitudes that differ from those of firms that are not actively structuring its firm for foreign funds.

Hypothesis 6 addressed the observation from the pilot studies that the activities of the venture capital firm may be affected by foreign funding in a pre-emptive fashion. Given that the process of raising funds can be extended over a long period of time, firms may alter elements of the investment strategy or management activities in an attempt to become more attractive to specific fund providers. The descriptive statistics reveal the baseline number of firms that perceive they are actively structuring its firms to be attractive to foreign investors, as well as the number of firms who believe that inflow of funds from foreign limited partners would be beneficial to its firm (Tables 6.15-6.16).

Table 6.15: Source of Funding and Active Structuring of Sample Firms

	We actively structure our firm to be attractive to foreign investors		Total
	0 = Firms without US Funds	1 = Firms with US Funds	
0 = No	15	3	18
1 = Yes	32	12	44
Total	47	15	62

Table 6.16: Source of Funding and Positive Belief of More Foreign Funds

	It would be positive for our firm if we could attract more funds from outside of Sweden		Total
	0 = Firms without US Funds	1 = Firms with US Funds	
0 = No	13	5	18
1 = Yes	34	10	44
Total	47	15	62

The subsequent tests were intended to determine if, and in what way, the active structuring of venture capital firms related to the firms' investment strategy and management activities. This answers the question of what *actively structuring* entails, and if it makes the venture capital firms differ significantly in the measured variables to those firms that are not actively structuring their firm to be attractive to foreign limited partners. Related to this, as presented and examined in the previous sections, may be the formation of specific attitudes that are compatible or aligned with the requirements of the fund providers.

To test hypothesis 6, the statistical analysis of the preceding sections were rerun to include the variable *active structuring* in the models. Active structuring was measured as a composite measure of the degree to which the sample firms actively structured their firm to be attractive to foreign investors and the degree to which they held a positive opinion of future foreign limited partners. The composite measure was recoded as a binary variable to indicate a position of active structuring or not (where averaged composite scores 0-4 represented not actively structuring, and scores 4.1-7 represented active structuring). The dependent variables were the same as they were for the preceding analyses: investment strategy, management activities, and management attitudes. In addition to the control variables used in the preceding tests, the geographical source of funds variables, *foreign* and/or *US*, were included in the models as an additional control variable for those dependent variables where they had been found significant. For the strategy variables, analyses were run first with the full data set, and then with a split file to be able to more accurately look at the impact of active structuring upon those firms that had only Swedish sourced funding at the time of data collection.

Active Structuring and Investment Strategy

Sector Diversity: The ordinal regression - both with the full data set and in a split file analysis - did not indicate any significant impact of active structuring upon the investment strategy in relation to *sector*; the effect of the actual source of funds found in the testing of Hypothesis 1 continued to be the most significant variable (Table 6.17).

Table 6.17: The Influence of Active Structuring on Sector Diversity

		Estimate	Std. Error	Wald	Sig.
Location	Industry	-0.356	0.398	0.799	0.371
	Type	0.319	0.540	0.350	0.554
	Age	0.020	0.337	0.003	0.954
	Size	0.001	0.405	0.000	0.998
	Institutional	0.094	0.601	0.025	0.875
	Foreign	-1.924	0.706	7.431	0.006
	Active structuring =0	0.075	0.604	0.016	0.901
Chi-Square	14.301**				
Pseudo R-Square	0.223				

Stage: The tests on the full data set did not reveal any impact of active structuring on the stage preferences of the sample firms. The split file analysis also failed to add support to this proposition beyond weak indications that active structuring may be connected to stage preferences in those firms that already have foreign funding (Table 6.18).

Table 6.18: The Influence of Active Structuring on Stage Preferences

		Estimate	Std. Error	Wald	Sig.
Location	Industry	-0.954	0.424	5.072	0.024
	Type	1.437	0.631	5.175	0.023
	Age	0.635	0.376	2.844	0.092
	Size	1.696	0.500	11.506	0.001
	Institutional	1.466	0.673	4.742	0.029
	Active Structure =0	0.497	0.653	0.580	0.446
Chi-Square	33.378***				
Pseudo R-Square	0.450				

Geography: The binary logistic regression performed on the *Nordic* variable indicated that active structuring is a statistically significant but minor variable influencing the geographical investment strategy of the firm (Table 6.19).

Table 6.19: The Influence of Active Structuring on Geographical Investment Focus

		B	S.E.	Wald	Sig.	Exp(B)
Step 1(a)	Age	1.530	0.653	5.490	0.019	4.616
	Size	2.482	0.824	9.085	0.003	11.968
	Active Structure	0.591	0.241	6.034	0.014	1.806
	US	-3.468	1.404	6.102	0.014	0.031
	Institutional	2.324	1.006	5.339	0.021	10.219
	Type	-1.166	1.040	1.255	0.263	0.312
	Industry	-1.785	0.900	3.930	0.047	0.168
	Constant	-9.522	2.553	13.911	0.000	0.000
Model Chi-Square	42.922***					
Nagelkerke R Square	0.663					
Step 1(a)	Age	1.323	0.597	4.918	0.027	3.756
	Size	2.014	0.697	8.343	0.004	7.490
	Active Structure	0.604	0.240	6.345	0.012	1.829
	Foreign	-2.047	1.150	3.168	0.075	0.129
	Institutional	2.083	0.986	4.459	0.035	8.030
	Type	-0.784	0.945	0.688	0.407	0.456
	Industry	-1.091	0.678	2.589	0.108	0.336
	Constant	-8.944	2.443	13.404	0.000	0.000
Model Chi-Square	37.750***					
Nagelkerke R Square	0.605					

Overall, there is little support for the assumption that active structuring has a general and important influence upon the investment strategies of the sample firms.

Active Structuring and Management Activities

The second set of tests addressed the extent to which active structuring was associated with the level of management activities undertaken by the venture capital firm and the portfolio company respectively, as well as the perceived importance of the various venture capitalist roles.

Activities: The impact of active structuring upon management activities was tested using ANCOVA. The covariates included in the model were those identified as significant in the earlier analysis. These included *type, age, sector,* and geographical source of funds: *foreign* and/or *US-based*. The results are presented in Table 5.20. Significant differences in means were indicated for 6 of the 18 venture capital activities: *search for*

management team ($p < 0.01$); *interview and select management team* ($p < 0.001$); *obtain alternate equity financing* ($p < 0.01$); *replace management* ($p < 0.01$); *negotiate employment with top level management* ($p < 0.05$); and, *development of initial business strategy* ($p < 0.05$). The venture capital firms that were actively structuring their firms for foreign financing, and believed that foreign financing would be positive for their firm, assumed a greater share of the responsibility for each of these activities compared to those venture capital firms that were not actively structuring. The degree of venture capital responsibility for the remaining 12 activities did not vary significantly with the fundraising strategy of the venture capital firm.

Table 6.20: The Influence of Active Structuring on Management Activities

	Not Actively Structuring		Actively Structuring		F
	Mean	Std. Dev	Mean	Std. Dev.	
Search for Management Team	4.15	1.772	3.14	1.010	9.184***
Interview and Select Management Team	4.23	1.536	3.38	0.923	8.840***
Negotiate Employment Terms with Top Level Management	4.08	1.115	3.24	1.318	4.315**
Negotiate Employment Terms with Employees	5.77	1.013	6.04	1.370	0.237
Obtain Alternate Debt Financing	3.85	1.144	3.52	1.389	0.847
Obtain Alternate Equity Financing	3.38	1.144	2.36	1.258	9.041***
Development of Initial Business Strategy	3.00	1.00	3.98	1.204	4.970**
Formulate Ongoing Business Strategy	3.77	1.423	3.90	0.939	0.252
Select Vendors/Suppliers/Equipment	4.92	1.498	5.38	1.028	0.405
Solicit Customers/Distributors	4.92	1.441	4.96	1.309	0.476
Replace Management	3.38	1.895	2.62	0.878	9.038***
Develop Actual Product/Service	5.62	1.044	6.15	0.989	1.793
Develop Production/Service	5.54	1.050	6.00	1.143	1.572
Formulate Marketing Plans	5.38	0.870	4.70	1.233	1.561
Motivate Personnel	4.54	1.664	5.26	1.306	1.770
Monitor Financial Performance	3.15	1.281	3.70	0.863	2.364
Monitor Operating Performance	3.54	1.506	3.82	0.896	0.101
Manage Crisis and Problems	3.31	1.932	4.00	1.030	2.100

***p<0.01, * p<0.05, * p<0.1

Roles: As with the management activities above, ANCOVA was used to test the difference in roles between those firms that were actively structuring their firm for foreign funds and those that were not. The covariates

included in the model were those identified in the earlier tests: *age*, *size*, *stage*, *geography*, and geographical source of funds; *foreign* and/or *US-based*. The results are presented in Table 6.21. Three of the eight venture capital roles showed significant differences in means including *advisor* ($p < 0.05$), *source of industry contacts* ($p < 0.05$), and *recruiter* ($p < 0.01$). For each of these variables, the firms that were actively structuring its firms for foreign financing indicated a greater importance of these roles toward its portfolio firms than firms without active structuring.

Table 6.21: The Influence of Active Structuring on the Importance of Venture Capitalist Roles

	Not Actively Structuring		Actively Structuring		F
	Mean	Std. Dev	Mean	Std. Dev	
Sounding Board	6.00	1.080	5.65	1.211	0.269
Financier	5.85	0.987	5.63	1.084	2.449
Advisor	6.38	0.768	6.67	0.595	4.176**
Friend	4.54	1.266	4.58	1.069	0.795
Mentor	5.15	1.214	5.25	1.280	1.759
Source of Professional Contacts	5.92	0.641	6.27	0.869	1.880
Source of Industry Contacts	5.46	0.776	6.00	0.875	5.322**
Recruiter	5.00	0.913	6.10	1.57	15.264***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Active Structuring and Management Attitudes

The third set of tests addressed the extent to which active structuring was associated with specific management attitudes in the sample firms. Ordinal regression analyses were run on each of the seven attitude constructs to determine whether the active structuring of the venture capital firms for foreign limited partners was related to management attitudes. For each of the constructs, the same control variables were used as identified in the sources of funds analysis; additionally, the sources of funds was entered as a covariate for those constructs where significant results were identified. The results indicate that for all but one construct - *entrepreneur attitude* - the active structuring of the firm is not linked to management attitudes. For the construct *entrepreneur attitude* (Table 6.22), there was a

significant negative coefficient estimate, indicating that those firms that were not actively structuring its firm for foreign financing were more likely to believe less in the requirement of the 'entrepreneurial' activities of putting the business first, foregoing holidays, and accepting initially lower salaries. Overall, however, even for this construct, the model fit is quite weak and, therefore, the results do not warrant a high degree of confidence.

Table 6.22: The Influence of Active Structuring on Management Attitudes: Entrepreneur Attitude

		Estimate	Std. Error	Wald	Sig.
Location	Active structure= 0	-1.274	0.566	0.314	0.024
Chi-Square	5.666**				
Pseudo R-Square - Nagelkerke	0.089				

The results show weak support for the association between active structuring and management attitudes, with only one of the 7 constructs - that pertaining to *entrepreneur attitude* - indicating a significant association with the active structuring of the venture capital firm.

Identity Reference

H7: The identity reference of the venture capital firm will be related to: the (a) investment strategy, (b) management activities, and (c) management attitudes of the venture capital firm.

Hypothesis 7 addressed the expectation that the group identity or reference group of the venture capital firm would be a predictor of the venture capital firm's behaviour. By identity reference, it is meant that the venture capital firm '*considers itself a part of, draws inspiration from, and models itself on a particular community*': a definition that was included explicitly in the distributed questionnaire. This section explores how the independent variable *identity* is linked to the three dependent variables: investment strategy, management activities, and management attitudes.

The confirmation of the idea that Swedish venture capital firms differ in the degree to which they identify with other venture capital communities is of key initial interest. The categories of communities were not presented as mutually exclusive and, therefore, there are overlaps in the distribution; however, a review of the patterns of responses shows that there is a strong majority of responses that indicate opposite levels of identity in two of the 6 communities: Swedish and US. Respondents that scored high on Swedish identity invariably scored low on US identity and vice versa; therefore, the two identity groupings were polarised. The results for the Mael and Ashforth (1992) identity construct were compared those of the single item *Swedish identity* that was phrased to capture the reference group of the respondents; the correlation was sufficiently high (0.828, significant at the 1% level) to confirm that, for the purposes of analysis, there was no need to distinguish between the two measures. These were important results for the remainder of this chapter. In other words, while it is accepted that there is a distinct theoretical divide between the concepts of identity and reference group, for the purposes of this study it is not imperative to determine which of the two concepts is most appropriate as they are empirically indistinguishable.

Given that not all the identity communities were equally relevant to this study, and that the number of variables and identity communities became unwieldy without adding significantly to the findings, the two most relevant *identity* communities - the Swedish venture capital community and the US venture capital community - were selected for inclusion in the following analysis. As with the active structuring variable, the identity variables were recoded into binary form to represent identification with each of the six communities (scores of 1-4 represented 'did not identify'; 5-7 represented 'did identify'). For simplicity of interpretation, the binary code used was 0 = did identify, and the code 1= did not identify with either the Swedish or the US venture capital community.

Identity and Investment Strategy

The first part of the analysis is concerned with how the venture capital firm identity orientation is linked to the investment strategy of the firm. The overall results show some support for a relationship between the venture capital firm identity and the degree of sector specialisation. Addi-

tionally, there are strong results for an association between the venture capital firm identity and the extent of the geographical scope of investments.

Sector: An ordinal regression was run to determine whether the firm identity was associated with the level of sector specialisation of the venture capital firm. The variable *foreign* that was determined to be significant in the source of funds analysis was included as an additional control variable (the US variable was included as a control in a separate analysis. These results are also significant). Both identity variables were significantly related to the level of sector diversity (Table 6.23). The positive estimate for firms with a Swedish venture capital community identity indicates that firms that identify with the Swedish community are more likely to have a more diversified investment strategy. The negative estimate for the firms with a US identity points toward firms with a US community identity as being more specialised in their sector investment strategy.

Table 6.23: The Influence of Identity on Venture Capital Sector Specialisation

	Estimate	Std. Error	Wald	Sig.
Foreign Funds	-1.968	0.611	10.368	0.001
Swedish VC = 0	2.069	0.915	5.118	0.024
Swedish VC = 1	-			
US VC = 0	-2.619	0.937	7.817	0.005
US VC = 1	-			
Chi-Square	20.058***			
Pseudo R-Square - Nagelkerke	0.303			

Stage: The stage hypothesis was tested using ordinal regression. The control variables were the same as those used in the source of funds analysis. Again, the size of the venture capital firm was found to be the most significant predictor of the investment strategy pertaining to stage of investments ($p < 0.001$). No support was found for a relationship between the venture capital firm identity and preferred investment stage (Table 6.24).

Table 6.24: The Influence of Identity on Investment Stage

		Estimate	Std. Error	Wald	Sig.
Location	Industry	0.0928	0.430	4.645	0.031
	Type	1.651	0.665	6.164	0.013
	Age	0.547	0.393	1.939	0.164
	Size	1.922	0.550	12.236	0.000
	Institutional	1.206	0.682	3.125	0.077
	Swedish VC = 0	0.937	0.879	1.124	0.289
	Swedish VC = 1	-			
	US VC = 0	0.075	0.869	0.007	0.931
	US VC = 1	-			
Chi-Square	35.716***				
Pseudo R-Square - Nagelkerke	0.479				

Geography: The binary logistic regression performed on the *Nordic* variable indicated that there was no relationship between the venture capitalist's identity orientation and the preference to invest primarily in the greater Nordic region. An additional test was run using the dependent variable *geography* that represents the geographical scope of investment from only investing in the local area to only investing in regions outside of Europe. This test clearly linked the venture capital firm's identity orientation with the scope of the firm's geographical investment strategy (Table 6.25). Firms that have a Swedish identity are more likely to have a larger geographical scope ($p < 0.05$) than those firms that do not have a Swedish identity. Firms that have a US identity are more likely to have a narrower geographical investment scope ($p < 0.001$).

Table 6.25: The Influence of Identity on the Geographical Scope of Investments

		Estimate	Std. Error	Wald	Sig.
Location	Industry	-0.300	0.394	0.581	0.446
	Type	0.371	0.558	0.441	0.507
	Age	0.335	0.349	0.921	0.337
	Size	1.406	0.433	10.529	0.001
	US	0.225	0.618	0.132	0.716
	Swedish VC = 0	2.952	0.957	9.514	0.002
	Swedish VC = 1	-			
	US VC = 0	-3.537	0.975	13.149	0.000
	US VC = 1	-			
	Chi-Square	32.130***			
Pseudo R-Square - Nagelkerke	0.429				

Identity and Management Activities

The second part of the analysis is concerned with how the venture capital firm identity orientation is linked with the management activities toward the portfolio firms, and the role of the venture capitalist. The results show that there are significant differences in the degree of venture capitalist involvement in more than half of the generic management activities of the venture capital firm; in the importance of three out of eight venture capitalist roles, strong support was provided for the hypothesis that differences in venture capital firm identity are associated with differences in management activities.

A Pearson's correlation test indicates a correlation of -0.772, significant at the 1% level, between the two groups of US identity and Swedish identity. Therefore, the ANOVA analyses were run using these two groups; that is to say, the Swedish identity group was compared to the US identity group, and covariates of *type*, *size*, *age*, *sector*, and *foreign* were included in the activities model, and *size*, *age*, *stage*, *geography*, and *foreign* were included in the roles model. The respondents that did not have polarised results with regard to identity were not included in the analysis

and are not presented here due to their small number. There were three instances of neither US nor Swedish VC identity, and three instances of both.

Activities: Using ANOVA, the differences in means for management activities were explored. The full results are presented in Table 6.26. Significant results are found for 10 of the management activities - the majority of which indicate a greater level of involvement by venture capital firms with US identity in activities relating to the top management of the portfolio firms. Venture capital firms with a strong US identity are more involved in, and take more responsibility for, many of the activities pertaining to top management, including: searching for management teams ($p < 0.05$); interviewing and selecting management teams ($p < 0.05$); negotiating employment teams with the top level management ($p < 0.01$); and, replacing management ($p < 0.01$). In addition, venture capital firms with a US identity are more involved in strategy of the portfolio companies, including the development of initial business strategy ($p < 0.01$) and the formulation of ongoing business strategy ($p < 0.05$). There is also greater involvement from this group of venture capital firms in obtaining alternative debt financing ($p < 0.01$), formulating marketing plans ($p < 0.05$) and, to some extent, motivating personnel ($p < 0.1$). Conversely, the venture capital firms with a strong Swedish identity are more involved in the soliciting of customers and distributors than the US identity group of venture capital firms.

Table 6.26: Identity Influence on Venture Capital Firm Activities

	Swedish Identity		US Identity		F
	Mean	Std. Dev.	Mean	Std. Dev.	
Search for Management Team	3.79	0.911	3.24	1.256	3.484**
Interview and Select Management Team	3.50	0.516	3.43	1.144	3.157**
Negotiate employment terms with top level Management	3.94	0.929	3.05	1.104	6.178***
Negotiate employment terms with employees	6.31	1.250	5.92	1.233	0.057
Obtain alternate debt financing	4.56	0.964	3.11	1.220	8.500***
Obtain alternate equity financing	2.56	0.727	2.49	1.484	0.778
Development of initial business strategy	4.50	0.516	3.43	1.281	4.297***
Formulate ongoing business strategy	4.06	0.250	3.73	1.194	2.213*
Select vendors/suppliers/equipment	5.44	0.727	5.24	1.278	0.707
Solicit customers/distributors	4.44	1.031	5.22	1.336	3.381**
Replace Management	2.94	0.998	2.51	1.017	4.925***
Develop actual product/service	6.06	1.063	6.00	1.000	0.376
Develop production/service	6.00	1.155	5.86	1.058	0.323
Formulate marketing plans	4.94	1.289	4.81	1.023	2.743**
Motivate personnel	5.94	1.289	4.78	1.397	2.551*
Monitor financial performance	3.81	0.544	3.59	1.117	0.598
Monitor operating performance	4.13	0.619	3.73	1.194	0.857
Manage crisis and problems	3.88	0.885	3.68	1.355	1.774

Significant results from the ANCOVA for the remaining identity groupings (global venture capital, Swedish Private Equity, Global Private Equity, and US Private Equity) are presented in Table 6.27. The mean comparisons are once again performed within each identity grouping with a binary variable. The results suggest that the venture capital activity of obtaining alternative equity is similarly performed less by the venture capitalist with a global VC identity as it is with a US identity; whereas, the private equity identities (both Global and Swedish) are associated with a higher degree of venture capitalist involvement in this activity.

Table 6.27: Other Significant Identity Reference Results

	Do Identify		Do Not Identify		F
	Mean	Std. Dev.	Mean	Std. Dev	
Global Venture Capital					
-Obtain Equity	2.65	1.782	2.48	1.033	7.847***
Swedish Private Equity					
-Obtain Equity	2.03	0.857	3.30	1.589	9.605***
Global Private Equity					
-Obtain Equity	2.55	1.329	2.63	1.469	12.522***
-Select Suppliers	5.45	1.201	5.08	1.018	6.372**
-Monitor Operations	3.87	1.070	3.63	3.63	5.947**
US Private Equity					
-Develop Production	6.17	1.018	5.57	0.938	4.030**

Roles: The results of the ANCOVA's for the role variables are shown in Table 6.28. Three of the venture capitalist roles are considered more important by the firms with a strong US identity than by the firms with a strong Swedish identity. The roles of *mentor* ($p < 0.05$) and *recruiter* ($p < 0.01$) are significantly more important to venture capital firms with a US identity, as is the role of *financier* ($p < 0.1$) although in this case with weak significance.

Table 6.28: Identity Influence on the Importance of Venture Capital Firm Roles

	Swedish Identity		US Identity		F
	Mean	Std. Dev	Mean	Std. Dev	
Sounding Board	6.06	0.998	5.61	1.264	0.908
Financier	5.94	0.574	5.39	1.152	2.338*
Advisor	6.81	0.544	6.53	0.647	1.517
Friend	5.13	0.885	4.45	1.108	1.743
Mentor	5.88	1.360	5.13	1.119	3.329**
Source of Professional Contacts	6.13	0.885	6.29	0.732	0.737
Source of Industry Contacts	5.94	1.181	5.82	0.730	0.953
Recruiter	6.56	1.031	5.71	0.984	6.577***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Identity and Management Attitudes

The final part of the analysis addressed the relationship between the expressed identity of the venture capital firm, attitudes toward entrepreneurs, and the role of venture capitalists. Generally, there is strong support for an association between venture capitalist expressed identity orientation and their attitudes.

The associations of identity and management attitudes were tested using ordinal regression, building upon the models developed for the source of funds analysis. The results are presented in Tables 6.29-6.35. The venture capital firms that had a US venture capitalist identity rather than a Swedish identity scored higher on three of the attitude constructs: *entrepreneur attitude* ($p < 0.01$); *decision type* ($p < 0.01$); and *agency* ($p < 0.01$), while they scored lower on the *hierarchy* construct ($p < 0.05$). No association was found between *identity* and the other three constructs: *independence*, *confidence*, *responsibility*.

Table 6.29: Identity Influence on Independence

		Estimate	Std. Error	Wald	Sig.
Location	Stage	-0.517	0.212	5.923	0.015
	0= US	0.280	0.526	0.283	0.594
	1 = Swed- ish				
Chi-Square	6.997**				
Pseudo R-Square - Nagelkerke	0.123				

Link Function: Logit

Foreign Indirect Investment

Table 6.30: Identity Influence on Entrepreneur Attitude

		Estimate	Std. Error	Wald	Sig.
Location	Active Structure	0.350	0.625	0.314	0.575
	0 = US	3.844	0.793	23.478	0.000
	1 = Swedish				
Chi-Square	34.135***				
Pseudo R-Square - Nagelkerke	0.466				
Link Function: Logit					

Table 6.31: Identity Influence on Decision Type

		Estimate	Std. Error	Wald	Sig.
	0 = US	2.260	0.591	14.621	0.000
	1 = Swedish	-			
Chi-Square	15.800***				
Pseudo R-Square - Nagelkerke	0.247				
Link Function: Logit					

Table 6.32: Identity Influence on Confidence

		Estimate	Std. Error	Wald	Sig.
Location	Size	-0.970	0.462	4.408	0.036
	Stage	-0.183	0.237	0.595	0.440
	Geography	-0.413	0.244	2.876	0.090
	Institutional	-0.373	0.599	0.388	0.533
	Foreign Funds	-1.259	0.700	3.229	0.072
	0 = US	-1.092	0.568	3.693	0.055
	1 = Swedish	-			
Chi-Square	33.715***				
Pseudo R-Square - Nagelkerke	0.471				
Link Function: Logit					

Table 6.33: Identity Influence on Agency

		Estimate	Std. Error	Wald	Sig.
	Geography	-0.044	0.217	0.042	0.837
	Foreign Funds	3.658	0.722	25.693	0.000
	0 = US	3.453	0.696	24.636	0.000
	1 = Swedish	-			
Chi-Square	46.064***				
Pseudo R-Square - Nagelkerke	0.572				
Link Function: Logit					

Table 6.34: Identity Influence on Hierarchy

		Estimate	Std. Error	Wald	Sig.
	Type	1.286	0.505	6.496	0.011
Location	0 = US	-1.201	0.543	4.889	0.027
	1 = Swedish	-			
Chi-Square	10.128**				
Pseudo R-Square - Nagelkerke	0.168				
Link Function: Logit					

Foreign Indirect Investment

Table 6.35: Identity Influence on Responsibility

	Estimate	Std. Error	Wald	Sig.	
Location	Size	-0.222	0.446	0.248	0.619
	Stage	-0.379	0.243	2.429	0.119
	Geography	-0.205	0.241	0.727	0.394
	Institutional	-0.653	0.607	1.155	0.282
	Foreign Funds	-2.136	0.761	7.868	0.005
	0 = US	0.527	0.559	0.887	0.346
	1 = Swedish	-			
Chi-Square	30.370***				
Pseudo R-Square - Nagelkerke	0.437				

Link Function: Logit

Empirical Results Summary

Hypothesis	Degree of Support	Specific Findings and Comments	Table
Hypothesis 1	Strong	<ul style="list-style-type: none"> Both foreign and/or US funding is associated with a more specialised <i>sector</i> investment strategy 	6.2
Hypothesis 2	No	<ul style="list-style-type: none"> No identifiable link between <i>stage</i> of investments and the source of funding. 	6.4
Hypothesis 3	Weak	<ul style="list-style-type: none"> US sources funds are associated with a strategic geographical investment focus on the <i>Nordic region</i>. 	6.5
Hypothesis 4	Strong	Foreign funding associated with: <ul style="list-style-type: none"> More venture capital involvement with <i>initial business strategy</i> and in <i>formulation of marketing plans</i>; Less involvement in <i>soliciting customers and distributors</i> and in the <i>management of crises and problems</i>; and, Decreased importance of the venture capital firm roles of <i>mentor</i> and <i>sounding board</i>. 	6.7 & 6.9
Hypothesis 5	Limited	Foreign funding associated with: <ul style="list-style-type: none"> Higher <i>agency</i> and <i>confidence</i> attitudes; and, Lower <i>responsibility</i> attitude. 	6.10-6.14
Hypothesis 6a	No	<ul style="list-style-type: none"> <i>Active structuring</i> is not associated with <i>sector</i> or <i>stage</i> investment strategy. Significant but small association of <i>active structuring</i> with <i>Nordic geographical focus</i>. 	6.17-6.19
Hypothesis 6b	Strong	Active structuring associated with: <ul style="list-style-type: none"> More venture capitalist involvement in <i>search for management team</i>, <i>interviewing and selecting management team</i>, <i>negotiating employment terms with top management team</i>, <i>obtaining alternate equity financing</i>, and <i>replacing management</i>; Less <i>development of initial business strategy</i>; and The increased importance of the venture capital firm roles of <i>advisor</i>, <i>Source</i> 	6.20&6.21

Foreign Indirect Investment

		<i>of Industry Contacts, and Recruiter.</i>	
Hypothesis 6c	No	<ul style="list-style-type: none"> • Only one management attitude construct was associated with active structuring. A higher <i>entrepreneur attitude</i> was associated with active structuring of the venture capital firm. The model fit was weak. 	6.22
Hypothesis 7a	<p>Strong - Sector</p> <p>No - Stage</p> <p>Weak - Geography</p>	<ul style="list-style-type: none"> • <i>Swedish identity</i> was associated with a diversified <i>sector</i> investment strategy; <i>US identity</i> was associated with a specialised <i>sector</i> investment strategy. • No association between investment <i>stage</i> preferences and <i>identity</i>. • No association between <i>identity</i> and a <i>Nordic</i> geographical focus. • <i>Swedish identity</i> is associated with a greater geographical investment region, and <i>US identity</i> is associated with a smaller geographical investment region. 	6.23-6.25
Hypothesis 7b	Strong	<ul style="list-style-type: none"> • <i>US identity</i> (as compared to <i>Swedish identity</i>) is associated with greater venture capital involvement in <i>searching for management team, interviewing and selecting management team, negotiating employment terms with top management, obtaining debt financing, development of initial business strategy, replacing management, formulating marketing plans, and motivating personnel.</i> • <i>US identity</i> is also associated with less venture capitalist involvement in <i>soliciting customers and distributors.</i> • <i>US identity</i> is associated with the increased importance of the roles of <i>Financier, mentor, and recruiter</i> 	6.26-6.28
Hypothesis 7c	Strong	<ul style="list-style-type: none"> • <i>US identity</i> (compared to <i>Swedish identity</i>) is associated positively with <i>entrepreneur attitude, decision type</i> and <i>agency.</i> • <i>US identity</i> (compared to <i>Swedish identity</i>) is associated negatively with <i>hierarchy</i> 	6.29-6.35

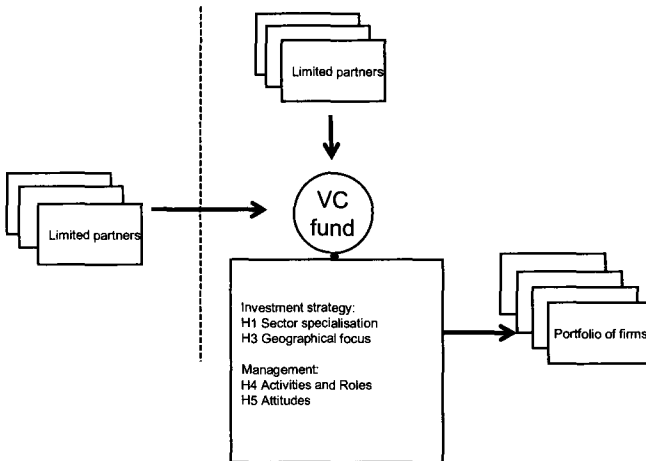


CHAPTER 7

EMPIRICAL RESULTS

The testing of the seven hypotheses in the previous chapter has revealed a variety of results, some of which support the hypotheses developed in chapters three and four. In this chapter, the empirical results will be brought together to address, to a certain extent, the proposed research purpose of investigating the limited partners' impact upon venture capital firm behaviour, and also to examine in more depth the results of the two venture capitalist-centred variables of active structuring and identity reference.

Money with an Attitude



The first three hypotheses were concerned with the investment strategy of the venture capital firm on three main dimensions: the level of sector specialisation, the stage preferences of investments, and the geographical focus for the investment targets. For sector specialisation, it was hypothe-

sised that firms that attracted foreign limited partners would have a more specialised focus than firms that were fully funded from within Sweden; support was found for this in the empirical analysis. It was of particular interest to note that the impact of source of funds was stronger than the variables that previous studies have linked to the preference for investment specialisation - for example the size of the venture capital firm (Gupta and Sapienza, 1992). The indications that foreign funds are associated with more specialised venture capital firms was hypothesised to be the result of the foreign limited partners understanding and knowledge of country-specific specialisation. If this is the case, then there are some particular implications. Considering that the venture capital market is consolidating, the amount of foreign capital is increasing, and there is a tendency toward investing in dominant sectors, then this may mean that, over time, the less prominent sectors may face an increasingly difficult situation when it comes to raising venture capital funds. While the macro level and economic implications of this may be debated, the negative impact upon the individual firms looking for venture capital funding is more obvious.

This study defined the preferred stages of investment as seed, start-up, early growth, or expansion stages; this was hypothesised to be influenced by foreign limited partners. No support was found for this hypothesis; however, strong support was found for the previously identified impact of the size of the venture capital firm and the investment stage preferences. With company structured venture capital firms, the type of venture capital firm is important, as is the age of the venture capital firm; older firms tend to prefer later stage investments. The industry focus factors into the stage preferences, with firms investing in IT-related portfolio companies having a stage preference for smaller portfolio firms. While there is a correlation between size, age, and type of firm, these correlations are not strong enough to eliminate these factors as somewhat independent predictors in the model. Overall, the stage preference dimension of the venture capitalists strategic investment decisions are seemingly unaffected by the international dimension of sources of funds. The Swedish industry patterns are quite comparable to those found in the US, and in other European-based studies.

The geographical investment focus of the venture capital firms with foreign limited partners was hypothesised to specifically be the

Nordic region for the sample firms operating in Sweden. This was based upon the idea that the foreign partners would want to invest efficiently by selecting a firm that had deal flow within the greatest geographical region, while still retaining the benefits of local knowledge. The empirical results supported that this, in fact, was the case for those firms that had foreign limited partners specifically from the US, yet it did not hold firm for foreign limited partners in general. The results make sense when we consider that the other significant variables associated with a Nordic focus are the size of the venture capital firm and the institutional nature of the funds. The limited partners in the sample that were not from the US were large institutional limited partners; the effect of this far outweighed the impact of the geographical source of funds as a predictor.

The decisions of venture capitalists leading to the implementation of an investment strategy has been one of the most researched areas within the field of venture capital, beginning with Wells (1974) and developing through ever more sophisticated research methodologies and differing empirical settings (c.f. Tjebjee and Bruno, 1983, 1984; Goslin and Barge, 1986; Ruhnka and Young, 1991; Fried and Hisrich, 1994; Bygrave, 1988; 1999). The results of this study indicate that in two important criteria - the degree of portfolio specialisation and the geographical focus of investments - the venture capitalist may not be determining its investment strategy in a void; yet, is instead influenced by the investment preferences of its limited partners. In particular, the acceptance of limited funds from the US would appear to either require or induce a specific investment strategy encompassing sector specialisation in the Nordic region.

The management of portfolio companies, in a similar way to investment strategies, has received a strong focus from venture capital researchers. The two areas have combined in an attempt to answer the questions: *what do venture capitalists do and how do they do it?* Research on the choice and intensity of management activities has been understood as a way of shedding light on how the venture capitalist adds value to its portfolio investments. The value-added activity of venture capital is a well researched area. There is evidence that variety exists between actors

in their approach to value-added activities. What is also fairly clear is that a spectrum of value-added activities can be identified as applying more or less to all venture capital firms due to the fact that this act of adding value is a part of venture capitalists task. Consequently, the set of management activities used in this study had been pre-tested for completeness and applicability to the venture capital industry (Erlich et al., 1994; Macmillan and Kulow, 1988). The testing of Hypothesis 4 indicated three specific management activities where the source of funding appeared to have an impact. With foreign limited partners, the venture capitalist assumed a greater responsibility for the formulation of marketing plans. The results are significant even after certain key suspects have been controlled for; these include the size of the venture capital firm and the investment strategy of the firm. A possible explanation for this is that the activity of formulating marketing plans is tangible and documented and, therefore, more easily displayed in future fundraising rounds by the venture capital firms as evidence of how they have contributed to value creation and venture success. The increased involvement in marketing plans may be directly a result of the limited partner requirements for faster returns through optimal commercialisation speed and growth in portfolio firms. Conversely, foreign limited partners are associated with less involvement by the venture capital firm in the soliciting of customers and distributors, as well as less involvement in the management of crisis and problems in the portfolio firm. In a similar vein, the role of mentor and sounding board is considered less important by firms with foreign limited partners. There is clearly a greater focus on the venture capitalist being a hands-on, higher level strategist as a way of adding value to those firms with foreign limited partners; whereas, the firms without this influence have a greater focus on mentorship and problem solving within the portfolio firm.

Management attitudes (or what venture capitalists believe is the correct way to view and manage portfolio firms and entrepreneurs) differed in a few key ways. For example, venture capital firms with foreign funds perceived a greater need to build entrepreneur confidence and help entrepreneurs in Sweden be more like those in the US. It is not easy to distinguish between two underlying mechanisms for this result. One explanation may be that these foreign funded venture capital firms see con-

fidence as a crucial part of success that is lacking in Swedish entrepreneurs, and the other firms disagree with this viewpoint, or alternatively; it is just the locus of responsibility that is different, meaning that the lack of confidence is noted by all, but that the venture capitalists do not believe that the responsibility for this lies with them. If the results from the previous hypothesis are considered; however, where the influence of foreign limited partners was associated with a decreased importance in the role of mentor - and this is added to the pilot study examples - the evidence points more strongly to the idea that there is a greater awareness by foreign funded venture capital firms that Swedish entrepreneurs require improved confidence, which could stem from a greater need for confidence in order to fulfil the specific objectives expected by the venture capital firms.

Mechanisms of Influence

The overall results from the empirical tests suggest that, in all probability, there are two main plausible mechanisms co-influencing venture capital firms. At this point, it is only possible to speculate about their relative importance.

First, the venture capital firms are induced or influenced by the limited partners; this means that there is a causal relationship between the obtaining of foreign limited funds and the investment strategy, in terms of sector diversity and geographical breadth. Additionally, this is also the case in terms of certain patterns of management activities. Secondly, there may be no mechanism of change at all; theories of variation and selection may be explanatory (Hannan and Freeman, 1977). The process may be as simple as the limited partners choosing those firms that are considered legitimate, in terms of their strategy, track record, and reputation. If this is the case, then the natural variation between venture capital firms determines which firms will be attractive to foreign investors. The firms that are considered attractive by foreign investors are the ones that receive additional follow on funding, and those firms that are not in line with this preference receive only local funding, or no funding at all and are discontinued. Again, the results are the same; the foreign limited partner preferred investment strategies and management behaviour become more dominant over time.

The Extent of Control in Foreign Indirect Investment

The empirical results have provided detailed evidence of differences between firms with foreign limited partners and those with pure local funding. The following section will discuss how these results can be viewed as an outcome of both intended and inadvertent control by the limited partners. This control emanates from the international capital flow and does not occur through equity ownership in the venture capital firm. The three outcomes measured were investment strategy, venture firm management activities, and venture capital management attitudes. These three outcome groups represent differing types of control outcome.

The two objects of control, as discussed in chapter 2, stem from the FDI literature. These were output control and behaviour control (Ouchi, 1977). Output control focuses on the monitoring of performance results through explicit regulatory requirements. Behaviour control involves the imposition of specific decisions and action points, or alternatively, the imparting of norms of behaviour and a certain philosophy of management.

Bureaucratic Control

The first outcome measured was the investment strategy of the venture capitalists. Differences in the investment strategy of venture capital firms related to the type of limited partner have been found in previous studies (Mayer et al, 2005). The significant results in the current study with respect to two of the three investment criteria, both support and extend this finding by revealing that the geographical location of the limited partners also matters. The limited partners can, therefore, be seen to have strategic control over the venture capitalist firms in that the strategic decisions of where to invest is determined, to a certain extent, by the limited partners.

This result is fairly expected and understandable, even if it has previously been overlooked in the venture capital literature. While the limited partners are legally restricted from actively stepping in and determining the investment decisions of the venture capital firms after the provision of fund capital, there are a number of conditions that can explain the strategic investment choices made by the venture capital firms.

For instance, the formal activities of the selection of firms that meet the strategic preferences of the capital providers, the contractual arrangement established, and the future probable sanctions of non-compliance to the contracted investment profile. These control outcomes are the result of formalised contractual arrangements. Would they be within an organisation, between organisational units, the control mechanism would be clearly that of bureaucratic, formal behaviour control where the action to be undertaken by the venture capital at strategically important moments (when investing) has been made explicit. While not included in the empirical section of this study, the frequent reporting to limited partners of investment results is an additional bureaucratic output control that is known to occur between the limited partners and the venture capital firms (see Table 7.1).

Cultural Control

While evidence of bureaucratic contractual control is not surprising given the contractual relationship between the limited partners and the venture capitalist, some of the additional results are less supported by current theory. Significant results were found between the venture capital firms with foreign limited partners and those without, with respect to the management activities undertaken by the venture capitalist firms. These were primarily in the area of organisational development, where venture capital firms with foreign funding were more involved with strategic development and less involved in operational development, than the firms without any foreign funding. Results were also found with respect to involvement on the level of portfolio firm personnel, where there was less involvement by firms with foreign funding.

Accepting the results of these tests, the implication is that the limited partners have an effect on the 'output' of venture capital firms, in terms of its behaviour toward its portfolio firms. If the specific behaviours of the venture capitalists are not specified in the contractual agreements, in the form of agreed decisions and actions at specific points of time, then this outcome cannot be attributed to the bureaucratic model of control. Therefore, it represents some form of cultural control, even if this control is inadvertent on behalf of the limited partners, and can be described as 'influence'. In the literature on control systems, the concept of cultural

control is dependent upon the interaction between the controlled and the controlling unit. The element of ongoing interaction is not present in the relationship between the limited partners and the venture capital firm; yet, there are other mechanisms that may explain an outcome that resembles cultural control mechanisms. The development of what I term here as 'mutual norms of value-added output value' (see Table 7.1) may result from the early interaction with the limited partners and, therefore, be a result of learning mechanisms.

Of even greater interest are the results relating to venture capital management attitudes. Significant results were found in three of the attitude constructs. Differences in attitudes may be representative of differences in a shared philosophy, for example on how the relationship and interaction between the venture capitalist and the portfolio company should be structured and how the venture capitalists view entrepreneurs. The statistically significant differences in the attitudes of the two groups of venture capital firms - those with foreign limited partners and those without - can be tentatively viewed as cultural behavioural control. This is expressed in Table 7.1 as *a mutual philosophy of venture capital management*.

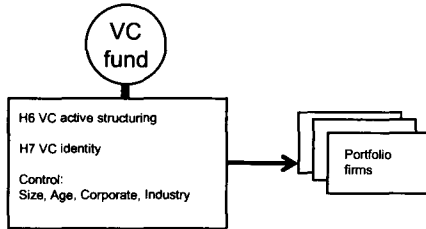
Table 7.1: Comparison of Control Mechanisms Within the Limited Partner-Venture Capitalist Relationship

Object of Control	Type of Control	
	Pure Bureaucratic/Formalized Control	Pure Cultural Control
Output	<i>Formal Performance Reports</i>	<i>Mutual Norms of Value-Added Output Value</i>
Behaviour	<i>Fund Investment Agreement</i>	<i>Mutual Philosophy of Venture Capital Management</i>

Adapted from Baliga and Jaeger (1984)

As described above, the *mutuality* of both norms and philosophy is admittedly based upon the differences between two venture capital groups, correlated to the limited partner type. The research design as such cannot prove that the norms and philosophy of the venture capitalists are the 'same' as the limited partners, since the study does not measure limited partner attributes. However, it is presented that if the transfer of funds were a portfolio investment, then the element of *control* would be missing. In practical terms, this would mean that there would be no notable differences between the firms with foreign funds and those with local funds.

Dressing for Success



The second set of empirical tests in chapter six concerns the impact of two additional variables - active structuring and identity reference - on the three principal areas of investment strategy, management activities, and management attitudes. The fundamental reason for the addition of active structuring as a variable was the understanding that by only focusing on firms that had already received funds from foreign sources, the effect of a pre-emptive fundraising strategy may, in fact, be overlooked. Determining the stage at which differences can be noted may facilitate a more accurate sorting of the alternative processes, which may underlie the cross-sectional data that is the basis of this study. This will be discussed more thoroughly in the next section.

Active Structuring

The tentative finding from the pilot studies and the literature suggested that there is an active structuring process that precedes the receipt of funds. This active structuring process is supported by the data. Approximately two-thirds of the responding venture capital firms were actively structuring its respective firms to be attractive to foreign investors; an equal number believed that it would be positive for the firm if it could attract more funds from outside of Sweden. The impact of this active structuring on the actual investment strategy, however, would appear to be minimal to non-existent. Firms that are actively structuring to be attractive for foreign investors do not appear to have investment strategies that could be explained by this activity. In contrast, it appears that the differences can be found primarily on the level of venture capitalist in-

involvement in value-added activities. Quite clearly, it is in the activities that relate to involvement in the top management of the portfolio firms; this includes searching for, interviewing, negotiating, and replacing the top management. To support this was the finding of the increased importance of the venture capital role of recruiter among firms that were actively structuring. What should be kept in mind is that the effect of current foreign limited partners was controlled for in this analysis.

The venture capital attitudes, similar to the investment strategy, appear to be independent to the active structuring of the firm. The results did not provide any support for this hypothesis.

Drawing from the results of the set of empirical tests pertaining to the firms with foreign limited partners - as compared to the results when the active structuring variable is included - it is noted that the differences in the venture capital firm strategy that are associated with foreign limited partners are not apparent in firms actively seeking these funds. Therefore, it could be concluded that the patterns of observed investment strategy are the direct result of the actual receipt of foreign funds, and are not pre-emptive strategy changes. Unfortunately, this is once again difficult to present since it is not known whether the active structuring of the firms is a successful strategy or not; it may be that the firms in this study that state they are actively structuring are no more likely to receive foreign funding than those that are not actively structuring.

Identity Reference

In addition to active structuring, empirical tests in chapter six concerned the impact of identity orientation on the dependent variables of investment strategy, investment activities, and investment attitudes. While a total of six non-mutually exclusive identity community categories were included in the questionnaire, only two of these communities were considered centrally relevant to the research question and were, therefore, included in the analysis. With the identity variable, the causality question becomes even more confounded simply because it is a complex question how identity is formed. The question was formulated to capture the degree to which the firms' identity with the pre-identified communities; the Mael and Ashforth (1992) instrument provided a corroboration; however, whether a firm identifies with a community because its practices and be-

liefs are most similar to those of that community, or whether its practices and beliefs are formed by a pre-existing objective identification decision is a process that cannot be untangled with the data at hand. The variable *identity* was addressed as an independent variable; however, it was added to the original model as a mediating or strengthening variable and could, in some ways, be considered a control variable to the main variable of geographical source of funds.

With regard to investment strategy, the main finding was that the *sector* diversity was found to be negatively related to a US identity and positively to a Swedish identity. This means that venture capital firms with a US identity are more specialised than firms without a US identity; and, firms with a Swedish identity are more diversified than firms without a Swedish identity.

The results for management activities showed a clear difference in the activities that related to top management of the portfolio firms when comparing the venture capital firms that strongly identified with the US community to those that strongly identified with the Swedish community. Venture capital firms that identify with the US venture community are significantly more involved and have a hands-on way of working than those that identify with the Swedish community. In many respects, the differences between the two groups follow the pattern identified in the foreign fund analysis. Swedish venture capital firms that have modelled themselves on the US community - or believe that its practices are like a US venture capital firm - are those that are more involved in the top management searches, replacements, and negotiations. These firms are also more involved in high end strategy activities, such as the development of the initial business strategy and formulating marketing plans, and are less involved in the customer and distribution activities. Unlike the firms with foreign funding, however, the identity aspect is associated with the roles of mentor and the activities of motivating personnel. Firms with a US identity, after controlling for actual fund sources and other variables such as size and investment strategy, are more involved with these activities than firms that have a Swedish identity.

Strong support was found for the assertion that the management attitudes of venture capital firms would be associated with the identity orientation of the firm. Again, it is difficult to explain causality as a result of the complex interdependence between identity and the process of iden-

tification; however, what can be seen is that the firms that have a US identity differ significantly on a number of attitude constructs than those that have a Swedish identity. The firms with a US identity score higher on the constructs *entrepreneur attitude*, *decision type* and *agency*. This means that these venture capital firms have a stronger belief that entrepreneurs should be focused on the business, accept low salaries and forgo holidays and family leave during the start-up phase. This conveys a notion of a focus on success and dedication to a business goal, and contrasts the view that an entrepreneur is involved in a role that is not specifically different to any other work situation. In addition, firms that identify with a US venture community believe in its own entrepreneurial role and consider that they are fast and intuitive decision makers who eschew the use of traditional financial decision models. There is also evidence of a stronger belief in contractual relationships in these venture capital firms. The agency construct reveals that firms with a US identity believe there is a naturally adversarial relationship between venture capitalist and portfolio firm; therefore, the interaction should be stated in a detailed contract, and the contracted terms should be followed without exception. In line with this, the results show a lower score on the hierarchy construct. The US identity firms believe that venture capitalists are in a superior position to the portfolio companies and do not want to be seen as one of the team by the firms in which that they have invested.

Mechanisms

Multiple theoretical streams could account for differences noted when looking for mechanisms to explain patterns identified by the identity variable. It should be remembered that it is not a given fact that differing *identity references* should lead to differences in the behaviour of the venture capitalists. Should the venture capital industry be a task-oriented and context-independent industry, as posited by the dominant financial-based rational models of venture capital, then the territory-based identity reference would not have an impact. Firms would characterise themselves and its practices purely by size or investment strategy. The results of this study add greater support for a deterministic view - for example, the new institutionalism concept of isomorphic mechanisms (DiMaggio and Powell, 1983) that posits that organisations imitate, yet rarely have

direct experiences with organisations or practices that are being imitated (Sahlin-Andersson, 1996). What thus spreads is not experiences or practices, but rationalised stories and standardised models. This explanation sits well with the theories of social learning (Bandura, 1969, 1976, 1977). A model becomes more likely to be imitated if it is - or is part of - a success story. When focusing on venture capital, the element of success is apparent on more than one level; (1) there is regional success, or the innovation and growth associated with Silicon Valley, where venture capital was repeatedly included in the generalised discourse as a crucial component of the winning recipe (e.g. Saxenian, 1994); (2) there is firm level success with high profile venture capital firms linked with the most dominant growth firms in the region; and, (3) there is personal level success of venture capitalists who become *stars* themselves, amassing personal fortunes and holding almost supernatural skills to see the future and predict the winners. The dynamic growth of the Silicon Valley region and the fascination with individual decision skills and reasoning processes of venture capitalists prompted both widespread media and researcher attention.

In Sweden, in the early to mid-1990s the Swedish government was conditioned and exposed to the mental model of regional success, and particularly in the mid to later-1990s there were many individuals who were exposed to the mental models of individual venture capitalists through media attention and the high profile of the flourishing industry. What Sweden, and other countries had that was different to the development pattern of Silicon Valley itself, was a successful solution to venture capital activities already available. The existence of a dominant model became a strong element in the problem discourse, or a realisation and confirmation of a gap between present state and desired state. It was not that first exposure came at this point, the venture capital industry had a first wave of government dominated development twenty years prior and had failed, making the successful US model appear even more attractive. The difference in the late 1990s was also influenced by the greater level of exposure to media and storytelling at the level of the individual, allowing more personal identification and greater individual level motivation which was believed to have prompted the move from industry positions to venture capitalist for a large number of the new entrants in this period.

In the social identity literature it is posited that for the process of

imitation to be conceivable and occur, a process of matching of identities through self-identification is a necessary facilitator (Sevon, 1996)³¹. An individual actor's self-concept is comprised both of personal identity and social identity that is built on group attributes (Ashford and Mael, 1989), and organisational identity is built on firm-specific factors and group level identity (Peteraf and Shanley, 1997). An individual or organisational self-identification is based on a process of matching with something else, and the part of an identity that becomes salient therefore rests on what the individual or organisation compares itself with. The question asked is 'whom do I look like? And, this can be extended to 'whom do I want to look like?'

Self-identification may vary with reference group and in the present case the reference groups were limited to those pre-stated in the survey instrument. This imposes limitations on the completeness of the respondent's identity in the full complexity as would be implied in social identity theory; however what can be concluded is that at the time of the data collection there were significant differences between the venture capital firms in their dominant reference group. In social identity theory, the process of social identification leads to activities that are congruent with one's identity, and the internalisation by group members of group norms and values. The social identity enters into the individual identities based on role-based group affiliations³². A question of central interest becomes then how an organisation identifies³³ itself, and therefore also with whom or what it compares itself.

These considerations of identity reference in relation to the venture

³¹ While Sevon (1996) applies the identity concept at an organisational level this literature stems from thoughts developed to explain individual behaviour, and is equally applicable through a range of identification levels, including both the individual and organisational.

³² Confounding the causal discussion, it is noted that identities can also be viewed as the results of action, not only their antecedents (Czarniawska and Sevon, 1996).

³³ For the venture capital firms that are operating as limited partnerships, the establishment of a firm involves personal, individual decisions and collaborations through networks of individuals who leave their previous job, in industry or finance, or as successful entrepreneurs, to become 'venture capitalists'. Given the upside-down pyramid structures of the limited partnerships (Wasserman, 2002), the multiple individual venture capitalists are more dominant to the firm structure than we would find in a traditional organisation with a traditional hierarchical structure, and there is arguably a more even balance between individual and organisational level identification.

capital industry open for more questions than they answer in the present study. What can be concluded, however, is that the identity reference of the venture capitalist, at least within the Swedish context, is an important variable that has explanatory power in regards to differences in venture capital firm behaviour.

Summary

This chapter presented the empirical results of this study and addressed the research purpose to investigate the limited partners' impact upon venture capital firm behaviour. In addition, the findings and implications of the two additional independent variables, active structuring and identity reference were considered. An overview and summary of these results are presented in Table 7.1.

Table 7.1: Results Summary			
	Money With an Attitude	Dressing for Success	
	Foreign Funds	Active Structuring	Identity
Investment Strategy			
-Sector	Yes (-)	-	Yes (-)
-Stage	-	-	-
-Geographical Reach	Yes	-	Yes
Venture Capital Management Activities			
Development - Strategic	Yes (+)	Yes (-)	Yes (+)
Development - Operational	Yes (-)	-	Yes (-)
Personnel Level Related	Yes (-)	-	Yes (+)
Top Management Related	-	Yes (+)	Yes (+)
Financing Related	-	Yes (+)	Yes (+)
Monitoring Related	-	-	-
Venture Capital Roles			
Sounding Board	Yes (-)	-	-
Financier	-	-	Yes (+)
Industry Contacts	-	Yes (+)	-
Management Recruiter	-	Yes (+)	Yes (+)
Business Advisor	-	Yes (+)	-
Mentor	-	-	Yes (+)
Professional Contacts	-	-	-
Friend/Confidante	-	-	-
Venture Capital Management Attitudes			
Confidence	Yes (+)	-	-
Responsibility	Yes (-)	-	-
Agency	Yes (+)	-	Yes (+)
Entrepreneur Attitude	-	-	Yes (+)
Decision Type	-	-	Yes (+)
Hierarchy	-	-	Yes (-)
Independence	-	-	-

CHAPTER 8

DISCUSSION

The previous chapter presented the results of the multiple analyses, and provided evidence that there are indeed specific relationships between the venture capital firm's source of funds and some aspects of their investment strategy, management activities and management attitudes.

This chapter takes a closer look at the overall findings, focusing specifically at the most salient results and how they relate to and inform the existing literature, as well as reviews the findings that were surprising in regards to existing theory. First, the most concrete implications relate to the field of venture capital. Second, the research also relates to the larger and more general streams of research on international capital flows, specifically in regards to type of investment and control. In addition, some tentative findings for the broad fields of identity, industry culture and national innovation systems are presented. The implications for each of these strands of literature will be discussed in turn.

Implications for literature on venture capital

At the most direct level, the present study adds to the current knowledge in the field of venture capital through the findings that the source of funds is associated with certain aspects of the venture capital firms' strategy, management activities and management attitudes. While researchers have used a variety of means to understand variation in the venture capital industry, the focus has primarily focused on the interaction between the venture capitalist and their portfolio firms and the characteristics of each. Stepping back and looking at the chain of investment has been a limited and fairly recent addition to this stream of investigation, and even within this group of studies the geographical territory of origin has been overlooked. Consideration of this source of influence through the addition of this variable affords a more complete model toward understanding what drives venture capital firm behaviour. While absolute causality

is elusive, there are indicators that this association is the result of receiving funds from foreign sources.

The results build closely on to the work of Mayer et al., (2005), and in the same vein as this earlier work the conclusions can be that while source of funding is not the primary source of variance in venture capital activities, it is an important consideration. On this note, it is important to observe the magnitude of the findings in this study. While there are significant differences that can be fairly reliably be attributed to the source of funding, these differences are subtle and may have limited observable impact on the local actions of venture capital firms, and the thesis does not have as its intention to attempt to say otherwise. Still, even if the observable impact is small, both the potential compoundable effect, and the theoretical implications are of interest.

The way in which foreign limited partners influence venture capital firms matters for several reasons, although questions of 'good or bad' necessarily depend on individual preferences. Firstly, the results suggest that foreign funds have real consequences in the local market. There is a difference in how portfolio firms are managed, but we also have a trajectory of innovation that is modified by the preferences of foreign fund investors. This operates both directly and indirectly; on the direct strategy of the firm – where money is directed in terms of sectors and geography, but also in the types of firms that are considered attractive and are invested in. If greater sector specialisation is associated with foreign funds, then an increase in the presence of foreign funds may crowd out other sectors and technologies that may otherwise have received venture capital support. If a Nordic focus is required, then investment funds may not necessarily be directed toward supporting Swedish firms.

If foreign funding is associated with differences in the activities of the venture capitalist, then the types of entrepreneurs that are attracted to, and attractive for, venture capital funding may be changing as the number of foreign limited partners increases in venture capital firms. While the consequence may be that entrepreneurs and portfolio management teams may be forced to adapt to the different involvement patterns of the venture capitalists, it may not be a matter of the venture capitalist managing the same group of ventures in a different way, but instead imply that the type of entrepreneur and management team that seeks out funding because they see value in venture capital involvement

is different. Similarly, those firms that are perceived as attractive investments by the venture capitalist may differ. The results of this study imply that the mentor and sounding board roles, and crisis management activities, are not important to venture capitalists with foreign limited partners. This is combined with an attitude of lower responsibility toward the individuals in the portfolio firms. This seems to amount to a more authoritative and top-down interaction between the venture capitalist and the portfolio firm, and would appear to reflect the business relationship logic of a highly individualistic and masculine society (c.f. Hofstede, 1980). This relationship may be at odds with the norms of traditional Swedish business relationships. Implications could include the loss of interactive synergies between the venture capitalist and the portfolio company, or the marginalisation of the venture capitalist funded firms from Swedish industry as a result of differing business logic.

A further contribution is the development and testing of venture capital specific attitude constructs. In the desire to understand the venture capital phenomenon from a finance perspective, this behavioural element of the venture capitalist has been somewhat overlooked by the primarily finance focused researchers. The dominance of rational decision models and belief in the internationally comparative task requirements in the industry has taken the focus away from the view that the activities of a firm are dependent on the behaviour of people, and that this behaviour is dependent on the relational logic acquired in the larger contextual setting of the firm. Some of what venture capital firms 'do' may stem from the constraints of the task, but other aspects of management and role behaviour may differ substantially between cultural contexts. International business researchers have long understood the far reaching and substantial impact that culture has on the behaviour of members of both nations and organizations and it is another remnant from the financial theory origins of the study of venture capital that the behaviour of venture capitalists has not received attention from a cultural perspective. The development of venture capital specific constructs provides at the very least a starting point to measure differences in venture capital attitudes over time or across settings.

Finally, the use of replication techniques for some of the dependent variables, in particular those pertaining to management activities, provides comparative data to add to the growing understanding of context

related differences in venture capitalist behaviour. The baseline findings contribute to the documentation of the shared and culture-specific behaviours of these investors, a contribution to a future meta-analysis of behavioural finance and its consequences for international business (Butler, 2006).

Implications for the theory of international capital flows

The type of investment flow entering into the funds of venture has not been covered by the traditional dichotomy of portfolio and direct investment. The existence of other forms of cross border investment flows has been noted previously; however the majority of the literature still applies the two category approach. Dunning (1993) retains two distinct categories for foreign capital flows - FDI and Portfolio, however the portfolio category was renamed 'indirect' and the definition expanded. This study suggests that there in fact should be a distinct category for foreign indirect investment (FII), as the implications for an important defining element related to the capital flow - the element of control - differs from both of these types of capital flows.

During the process of this thesis, the lack of clarity was noted in the research in regards to what is controlled with differing investment arrangements. From being a central concern in the international business literature in the 1960s, many authors in recent years have skirted around the issue of control. There are few guidelines on what we mean by the term 'control' in this field, and even less consideration has been directed to explaining exactly how the differing degrees of control operate. This applies to both the viewpoint of control as a continuous variable, and control as a strategically selected variable - or maybe these are not mutually exclusive. It could be that the degree of control has a direct impact on what options are available for strategically selective control for instance. As shown in figure 8.1, the results of this thesis place the contract type of equity plus contract at the mid-point between the lower control levels of non-equity arrangements and the higher equity based control. This placement arises from the results of aggregated data and as is suggested

diagrammatically in figure 8.1 there is conceptually room for the differing individual types of limited partner capital flows to move up or down on this continuum. This could be achieved through the details of the contractual arrangements, the strength of the relative negotiating positions, or the reputation of the limited partner.

This research opens up further the idea that investment flows between nations do not have to retain the established structures of control to have an impact on the local context.

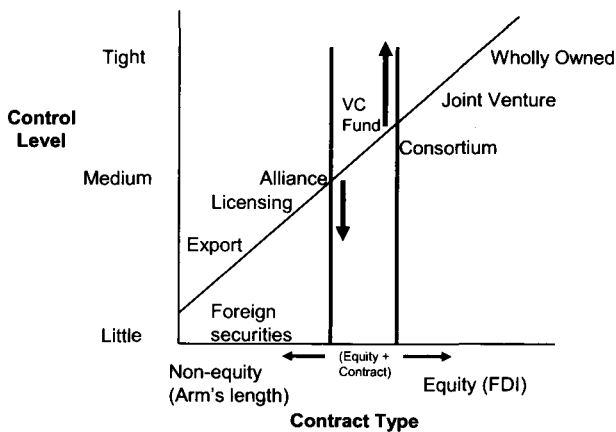


Figure 8.1: Contract Type and Level of Control: Revised

The division of capital flows into those that have no control element, i.e. Dunning's version of FII, and those capital flows that do imply control, or the internal flows of the MNC and the variations of such, has meant that researchers and practitioners have not focused on the effects that are possible from other forms of capital movements. This study shows that even in the absence of formal ownership, the impact of foreign control can be identified.

Rather than suggesting that either of the two classifications of capital flows are incorrect, the results of this research suggest that there may be two types of foreign indirect investment, and the addition of an intermediate, or hybrid, category of capital flow may more correctly reflect the observable phenomenon. There is firstly foreign indirect investment type

A - as in Dunning's original definition of FII, with a transfer of assets at arms length with no associated element of control. Secondly there is foreign indirect investment type B. Type B is primarily the arm's length transfer of capital assets that also has associated control to some degree. These findings are in line with Dunning's (1993) classification, the difference is the relaxation of the assumption of no control, in this intermediate category.

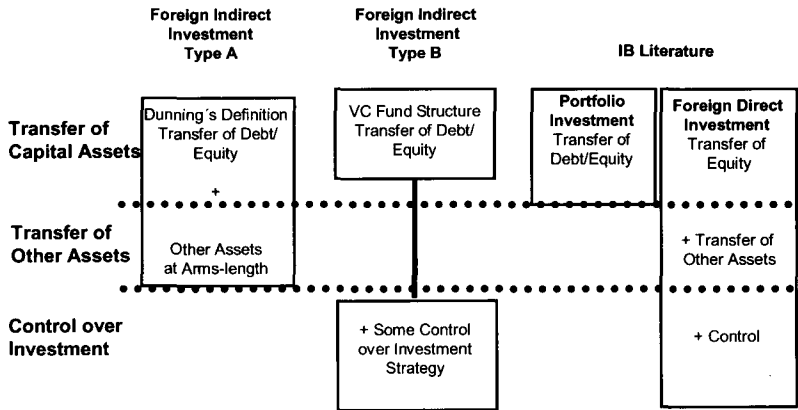


Figure 8.2: Foreign indirect investment, Portfolio and FDI (Revised)

Of additional interest are the results that indicate that we are not just observing bureaucratic, or formal, control but that cultural control, previously only connected with full equity ownership may also be associated with foreign indirect investment type B. Selection of members in a cultural control system is of critical importance, as is the training and socialising. As in this case there can be little in the way of training and socialising it is in the selection that the critical element lies, and in the 'indirect' socialisation through the observations of the models of successful venture capital firms, be that fundraising or successful investment.

Additional Implications for Theory

Identity, Industry Mind-Sets, and Industry Culture

Identity theory was not a central focus of this thesis however the results pointed toward some unexpected and interesting considerations that stem from the identity variable. The first consideration is the relevance of the identity variable to explain venture capitalist behaviour. The strong results showing correlations between espoused identity and the broad range of venture capitalist behaviours should at the very least encourage the future consideration of this variable in venture capital studies. The assertion that venture capitalists have differing identity references is in itself important, but it is more important that these identity claims are in fact supported by statistically significant differences in strategy, activities and attitudes. It is a misnomer to assume that an expressed identity by definition encompasses specific behaviours. This study connects divergent identities to the divergent behaviour, suggesting that these are internalised identity orientations.

The second consideration is the importance of non-local role models. While not claiming that the broader field of identity theory is lacking in this insight, in the identity extensions of strategic group theory for example (Peteraf and Shanley, 1997) the emphasis is on the proximity of actors and the development of mutual understandings. Specifically, interactions of proximate firms are proposed to increase group emergence and identity strength (ibid. p. 175). The development of mutual understandings of a group based on the emulation of a foreign industry, or a non-proximate group, is omitted from this literature.

This study demonstrates that even at a descriptive level the industry is influenced by the US model of venture capital, and that this is aligned with a specific pattern of management attitudes that differ from those groups that have a local identity reference model. The outcome of this study shows that there are quite distinctly at least two groups of venture capitalists within the same national setting that held preferences for differing strategic behaviour and also different attitudes toward their role, industry and entrepreneurship and that difference was aligned with the espoused identities of the venture capitalist firms. Unfortunately, the difference between the concepts of group identity and reference group

was indistinguishable with the research methods employed in this thesis. Qualitative techniques would be necessary in future research to tease out what is the most accurate description of the processes.

The observed pattern of sub-grouping within the venture capital industry provides evidence of two distinct industry mind-sets (Spender, 1980, 1989), one based on a local framework, and another transplanted from the US, the dominant nation in the industry. The implication of this finding adds empirically to the literature streams that focus on industry level recipes (Spender, 1980; 1989), and industry level culture (Chatman and Jehn 1994, Gordon, 1991, Phillips 1994).

From a strategy-based view, Spender (1989) purports the existence of industry recipes, which are shared responses to managerial uncertainties extant in that industry. These recipes are basic beliefs about the priorities and actions appropriate for performing well in the specific industry. Industry mind-sets have been explored through a strategy approach, and the main focus has been on shared assumptions that relate to the competitive positioning of firms, however the addition of cultural assumptions to the industry recipe view allows for a broader array of issues to be explored at this level of analysis (Philips, 1994). Philips points to three issues, *strategic issues*, such as competitor definition and group boundaries, *interpersonal work relationship issues*, such as patterns of communication and authority, and *social issues*, such as the purpose of work. Industry culture studies suggest that companies can share cultural values and practices, and that this commonality is not random, but arise from similar industry demands (Chatman and Jehn 1994; Phillips 1994; Gordon, 1991; Spender, 1989; Reynolds, 1986).

The cultural unit of the 'nation' has dominated business studies on management and organisation, however distinct streams have focused on other cultural boundaries, particularly that of the organisation. The organisational culture perspective has commonly looked at culture as relatively unique to each organisation (Smirich, 1983, Barley, 1983). Industry culture as a cultural unit is far less frequently evoked than that of national or organisational culture and it is often equated with a global industry culture, but this is a misinterpretation of the concept. Industry culture as evoked in the few research studies where it is used explain that it is also context dependent and includes the national culture considerations. Industry culture is therefore not synonymous with a convergence perspec-

tive of culture.

While the industry culture research to date has focused on homogeneity, with initial perceived industry homogeneity generally forming part of the sample selection procedure (Phillips, 1994; Chatman and Jehn, 1994), allowing for intra-industry cultural grouping is supported by the strategy based research on strategic group identity.

The findings from this study, based on a single industry in a single national context, add empirically to the industry culture literature. The findings can be perceived as evidence of industry sub-grouping of venture capitalist attitudes, which is akin to industry sub-cultures that are distinguishable by the identity reference of the industry participants.

National Innovation Systems

This research also builds on to the theoretical position that suggests the depictions of venture capital as a necessary contributor to economic growth are not complete (Kenny and Florida, 1988a; 1988b), and adds the additional variable of limited partners as a contributor in the development of technological trajectories. The financial institution of venture capital has been regarded as an important element in the National Innovation System (NIS) literature, although it is generally seen as an accelerator, with the level of venture capital financing reflecting the other institutional arrangements. Institutional context in the form of National Innovation Systems has been argued to be important in the shaping of national technological capabilities (Bartholemew, 1997, Kogut, 1993). In this view, technological development is seen as emanating from the skills, capabilities and knowledge that accumulate over time and is location specific following a natural trajectory of growth, following patterns of past technological strength. Unique arrangements develop locally through the differences in societal institutions, and the policies, practices and interaction patterns of these institutions.

The dominance of the domestic structures and interactions in this argument has concurrently been challenged by the debates on inter-linked economies (Ohmae, 1990) and globalisation. As a result the debate revolves around the issue of whether there are forces toward a convergence of technological capabilities across countries, or if national innovation systems maintain their diversity within inter-linked economies (Bar-

tholemew, 1997). Admittedly, this current study did not focus on the technological aspects of portfolio firm selection, however the research does add conjecturally to the already conceptual model of Florida and Kenny (1988) that venture capital firms are uniquely placed to select the sectors, technology and firm type that receive capital input and assistance. Venture capital firms are in addition a bridge between the nodes of contact within an innovation system (Lundvall, 1996). With venture capitalists showing signs of being under foreign limited partner control and influence they are therefore unlikely to be purely reactive to the existing domestic institutional arrangements. Further focus on National Innovation Systems should therefore at least consider the composition of the national venture capital industry and the financial sources flowing into the industry, alongside the more established institutions considered as defining within an innovation system.

Policy Implications

Governments all over the world have engaged themselves in the venture capital industry, based on the belief that stimulating the supply of venture capital will feed directly into economic growth. This study has some interesting implications for policy makers and other regulators.

Firstly, the study tells us that not all capital operates equally, and measures to direct and encourage increased flows of foreign funding will have effects on the economy by increasing specialisation in sectors and technologies and possibly directing a greater proportion of investments in portfolio companies outside of Sweden. Similarly to the concern for the increased foreign control in manufacturing industries that has long existed, increased foreign indirect investment in the venture capital industry at least deserves awareness. The concentration of foreign investment in key areas raises issues of the amenability of industries to planning and control at the national level, as well as the operation of specific industries to the detriment to other industries (Dunning, 1964). The concentration of foreign indirect investment, with associated levels of control, puts the selection and the development of venture capital funded firms outside of national control. Increased reliance on foreign limited partners in the Swedish industry must also be of interest to policy mak-

ers. While funds are committed for a significant period of time and cannot be withdrawn overnight, the venture capital funds are required to start over in the fundraising process at least once every decade.

Secondly, the attitude change of Swedish entrepreneurs considered critical to greater entrepreneurship, as oftentimes cited by government, can to some degree be achieved just by encouraging increased flows of foreign capital. Rather than encouraging entrepreneurship through educational and training programs, the venture capitalists may become the agents of change by transferring new models of entrepreneurship through their interactions with portfolio firms. In addition, as the identity orientation has a strong effect on the behaviour of the venture capitalist, the promotion of further US role models, and the continued comparisons to the US industry could in fact be powerful tools.

The findings from this study do not only answer some of the questions posed, but also raises many more questions. The use of a single context provides limitations to this study, however it opens up to future research questions of how the increasing large scale capital flows from the US are impacting other venture capital industries. This not only applies to the current venture capital growth nations, but also the multitude of fledging national industries that have been sold on the venture capital growth model.

The identified effect of foreign indirect investment and control may have significant applicability in other international capital flow situations, for example the transfer of funds from developed nations to developing nations to be used in small scale venture capital projects in the form of development aid. Further research on the qualitative impact of indirect capital flows in these settings and beyond, could prove to be a constructive and worthy path.

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Appendix 1: Cultural Orientations Framework (Attitude Constructs)

Category from Schein's Typology	Phillips (1994) (Strategic, Work Relationship, Social)	Hofstede (1980)	Trompenaars (1993)	Lane et. al. (2002)
1. Relationship Between the Group and the Environment	Competitors and Stakeholders' Identity, and Role of the Industry in Society		Relation to Nature Externally Controlled versus Internally Controlled Management by Objectives versus Management by Environment	Goal Setting: Qualified, Hesitant, Vague; Contingent, Moderated: Specific, Confident, Unambiguous, Extensive Budget Systems: Futile, Outcomes Predetermined: Exercise: Real, Relevant, Useful
2a. Nature of Reality and Truth: Time	Planning Resources and Horizons Decision Making Styles		Time Sequential versus Synchronous Performance Evaluation and Planned Career versus Holistic View on Employees Activities	Planning: Extension of Past Behaviour; Short-Term; Long-Term Emphasis in Decision Criteria: Precedence; Current Impact; Desired Effects Reward Systems: Historically Determined; Currently Contracted; Contingent on Performance
2b: Space	Space Allocation		Neutral Warm, Expressive and Enthusiastic Behaviour versus Detached Small Cues versus Expressed Emotionality for Interpreting Behaviours	Communication and Influence Patterns: One-to-One, Secret; Selective, Semi-Private; Wide, Open. Office Layout: Emphasis on Barriers; Specialised Spaces, Open Concept. Interaction Patterns: Physically Distant, One-to-One, Serial; Moderately Spaced, Moderated Numbers Organised; Physically Close, Multiple Relationships.

3. Nature of Innate Human Nature	Evaluations of Stakeholder Motivation Standards for Selection and Promotion	Uncertainty Avoidance The Amount of Rules Tolerance versus Resistance /Suppression of Deviant and Innovative Behaviour and Ideas Motivation by Achievement versus Security	Universalism/ Particularism Uniform Procedures versus Informal Networks Formal versus Informal Approaches to Change Treating all Cases the Same versus Treating on Special Merits	Control System: Tight, Suspicion-Based; Moderate, Experienced-Based; Loose, Information-Based Management Style: Close Supervision, Top-Down; Moderate Supervision, Consultative; Laissez-Faire, Participative Organisational Climate: Adversarial, Contractual; Collaborative, Informal
4. Nature of Human Activity	Personal Motivation Central Life Interest; Job Choice Rationale	Masculinity/Femininity Meaning of Work Decision Processes and Conflict Resolution (Intuition/Consensus/Negotiation versus Decisive and Assertive Managers) Importance of Equality and Quality of Work Life versus Equity and Performance	Diffuse versus Specific Priority of Realised Objectives versus Improving Process Separation of Private and Business Instructions Clear Precise and Detailed versus Ambiguous and Vague	Decision Criteria: Emotional; Relational; Pragmatic Rewards System: Feelings-Based; Logic-Based; Results-Based Concern for Output: Spontaneous; Balanced Objectives; Compulsive. Information and Measurement Systems: Vague, Feeling-Based, Intuitive; Complex, Qualitative, Broad; Simple, Operational, Few Indices.
5. Nature of Human Relationships	Patterns of communication and hierarchy Social Responsibility	Power Distance Individualism/Collectivism Hierarchy for Convenience versus Reflecting Existential Inequality; Flat versus Steep Centralisation versus Decentralisation Consultation versus Directive Relationships (Family Logic/Contract Logic) Hiring and Promotion (Skills and Rules versus In-Group Considerations) Relationship versus Task	Achievement/ Ascription Collectivism/ Individual Respect Based on Skill versus Seniority versus Relationship Individual Incentives versus Group Cohesiveness Freedom for Individual Initiative versus Goals for All to Meet	Organisational Structure: Vertical Differentiation; Horizontal Differentiation; Informal and Flexible. Communication and Influence Patterns: Authority-Based; Within Group; Multiple Reward System; Status-Based; Group-Based; Individually-Based. Teamwork: Regulated, Formal; Normative, Routine; Voluntary, Informal

Appendix 2

Investment Phase Definitions Source: European Private Equity and Venture Capital Association (EVCA)

SEED: Financing provided to research, assessed and developed an initial concept before business has reached the start-up phase.

START-UP:

Start-up: Financing provided to companies for product development and initial marketing. Companies may be in the process of being set up or may have been in business for a short time, and have not sold their product commercially.

Other early stage: Financing to companies that have completed the product development stage and require further funds to initiate commercial manufacturing or sales. They will not yet be generating a profit.

EXPANSION:

Expansion: Financing provided for the growth and expansion of an operating company, which may or may not be breaking even or trading profitably. Capital may be used to finance increased production capacity, market or product development, and/or to provide additional working capital.

Bridge Financing: Financing made available to a company in the period of transition from being privately owned to being publicly quoted.

Rescue/turnaround: Financing made available to existing business, which has experienced trading difficulties, with a view to re-establish prosperity.

REPLACEMENT CAPITAL:

Secondary Purchase/Replacement Capital: Purchase of existing shares in a company from another private equity investment organization or from another shareholder or shareholders.

Refinancing Bank Debt: To reduce a company's level of gearing

BUYOUT:

Management Buy-out: Financing provided to enable current operating management and investors to acquire existing product line or business.

Appendix 3

Differing Organisational Forms in Sweden in 2006: All Private Equity Firms.

Table A3.1 Organisational Forms – Private Equity Firms in Sweden 2006

Fund	34%
Private	27%
Public	13%
Listed	12%
Corporate	6%
Mix	7%

Source: SVCA Quarterly Statistics 2006 www.svca.se

Even when reported in summary format, the most recent data from SVCA shows an overall dominance of investments in medical technology and biotechnology; however, there are a wide range of industries that receive venture financing.

Table A3.2: Swedish Venture Firm 2006 Investments by Branch

Branch/Industry	Number of Investments, 2006
Medical Technology	117
Biotechnology	114
Computers/IT, Software	89
Industrial Products/Services	48
Communication, Other	39
Services, Other	39
Consumer Goods	32
Computers/IT, Services	30
Medicine	30
Consumer Goods, Other	27
Financial Services	27
Internet Technology	27

Source: SVCA Quarterly Statistics 2006 www.svca.se

Appendix 4

Summary of Venture Capital Selection Studies (1974 - 2001 Date Order)

Author	Study Focus	Variables	Method	Main Findings
Wells, 1974	Investing and Screening Process	Importance of the given criteria: Investment criteria - average weight:	Empirical, Interviews. 8 VC's.	Management commitment (10), product (8.8), market (8.3), marketing skill (8.2), engineering skill (7.4), financial skill (6.4), manufacturing skill (6.2), references (5.9), other participants in deal (5.0), industry/technology (4.2), cash-out method (2.3).
Poindexter, 1976	Ranked Criteria Study	Ranking of importance from strongest to weakest criterion.	Empirical, mail survey. 97 VC firms.	Investment criteria by rank order of importance. Quality of management, expected rate of return, expected risk, percentage equity share of venture, management stake in firm, financial provisions for investor rights, venture development stage, restrictive covenants, interest or dividend rate, present capitalisation, investor control, tax shelter considerations.
Bruno, A. V., & Tyebjee, T.T, 1983	Criteria Study - Denied Entrepreneurs Perceptions	Age and industry sector, reasons for denial, perceptions of VC's, time spent seeking finance, preferred sources and forms of financing, results of being unsuccessful	Empirical, telephone, mail 62 ventures	Reasons for denial categorised as venture related, venture capitalist related, deal structure, or other. Venture-related reasons most frequently mentioned.
MacMillan, Seigal, & Subbanarasimha, 1985	Ranked Evaluation Criteria	Ratings of: Entrepreneurs personality and experience, characteristics of the product or service, characteristics of the market, financial considerations, characteristics of the venture team	Empirical, interviews and survey. VC's report own decision policies	Confirms that quality of the entrepreneur ultimately determines the funding decision. VC's manage six risk categories; 1) risk of complete loss, 2) risk of no exit 3) risk of failure to implement 4) risk of management failure 6) risk of leadership failure. Three clusters of VC are 1) those who carefully

				consider competitive and implementation risk, 2) those who see easy exit, 3) those who keep multiple options open.
Goslin & Barge, 1986	Entrepreneurial Qualities and Experience	Location of VC firm, management team criteria for success	Empirical mail survey, 42 VC firms	Comparative sample consistent on importance of management team and innovativeness of the product, but differed in the definitions.
MacMillan, Ze-mann, and Subbanarasimha, 1987	Evaluation Criteria	Characteristics of the venture team, proposed product or service, target market, forecast financial characteristics, performance	Empirical mail survey. 67 VC firms. VC's report own decision policies used	Two criteria consistent predictors of venture success: degree of competitive threat and degree of market acceptance of the product.
Bygrave, 1987; 1988	Investment Network Studies	Number of single investments, number of pairs of investment; stage, innovativeness, sector and location of firms.	Empirical, 464 VC firms, 1,501 portfolio companies	Co-investment patterns and networks of VC's
Sandberg, Schweiger, and Hofer, 1988	Decision Processes During Evaluation	Actions, product characteristics, competitive position, market demand, management capabilities, financial performance, adequacy of the plan	Empirical case study. Verbal protocol - 1 Venture Capitalist	Deliberate sequencing of conscious choices - product, competitive position, product, and finally financial projections.
Hisrich & Jan-cowicz, 1990	Intuition in the Decision -Making of Venture Capitalists	Management criteria, opportunity, appropriate return	Empirical, interviews, repertory grid technique (personal construct psychology) 5 venture capitalists	Grouped investment constructs into three areas: management, unique opportunity, and appropriate return. Each venture capitalist had a unique way of structuring the intuitions involved in the investment decisions.
Ruhnka & Young, 1991	Decision Making under Uncertainty	Venture risks, stage of development, required rate of return, risk of loss expectations	Conceptual, psychological risk theory	Construction of a 'venture capital model' (Seed, start-up, second stage, third stage, exit stage) and associated characteristics and risks.
Hall & Hofer, 1993	Criteria Used to Evaluate Venture Proposals	Time to decision, decision criteria	Empirical, interviews, verbal protocols	VC's screen and assess quickly. Team and strategy unimportant during early evaluation. Key criteria: fit with VC's lending guidelines, long-term growth and profitability of the industry.
Ray & Turpin,	Comparative Crite-	MacMillan (1985) replicated.	Empirical mail	U.S VC's more stringent with more exten-

1993	ria Study (Japan/U.S.A)		survey, 18 Japanese venture capitalists	sive evaluation criteria. Japanese VC's apply more intuition.
Rosman & Neil, 1993	Decision Behaviour	Amount and category of information sought, amount of money requested, general time frame for financing, stage of development, financing decision	Empirical, computer simulation, 19 VC's, 23 commercial lenders	VC's acquire less information and follow a pattern of acquisition that was deeper within categories than bankers. VC's showed strong preference for strategic data and less interest in historical financial data.
Fried & Hisrich, 1994	How VCs Make Investment Decisions	Investment criteria, investment stages, time	Empirical, Interviews, mail survey	Generic criteria classified into three categories: concept, management, returns. Propose 6-stage process model. Origination, Firm-specific screen, generic screen, 1st-phase evaluation, 2 nd phase evaluation, closing
Carter & Van Auker, 1994	Development Stage and Evaluation Criteria	Size of projects, percentage ownership required, preferred stage of investment, historical percent of investment stage, evaluation criteria, risk factors, management involvement	Empirical mail survey, 69 VC's	VC's have preferences for projects in particular stages and there are differences in selection criteria and management depending on stage preference.
Knight, 1994	Comparative Criteria Study	McMillan et al, 1995 (replicated) Entrepreneur's personality and experience, characteristics of the product/service, characteristics of the market, financial considerations	Empirical, mail survey	Similarities in entrepreneur's personality, otherwise differences by region in terms of relative importance - high-tech investments most positive in the U.S.
Muzyka, 1996	Comparative Decision Criteria	34 decision criteria grouped into; Financial, Product-Market, Strategic-competitive, Fund, Management team, Management competence, and Deal.	Conjoint analysis, 73 VC's.	Importance of the management team: No evident country bias in criteria ranking, nor relationship to scale of the fund, typical round of financing, or apparent network
Boocock & Woods, 1997	Single Case Study	Characteristics of investments made, reasons for rejection	Empirical case study, Interviews, notes 232 applications	Confirms multi-stage decision-making process, different criteria considered at each successive stage.
Zacharakis & Meyer, 1998	Decision Processes	Venture capital firm characteristics; investment stage, size, age, investment industry, geographic focus, funding amount, VC firm type, number of co-investors; Venture capitalist characteris-	Empirical mail survey, 51 VC's.	VC's do not have a strong understanding of their investment decision processes. Insight decreased as the amount of information increased. Decision making processes were consistent.

		tics: age, gender, educational level, education type, tenure, other experience; experimental characteristics of venture: market familiarity, leadership ability; proprietary protection, market size and growth, track record, competitors, competitor strength, completeness of team, product superiority, development time, buyer concentration.		
Bygrave, 1988;1999	Characteristics Studies of Venture Backed IPOs	Segment, management team experience, market size, growth share, distribution channels, life cycle stage, uniqueness of product and protection, financial performance measures	Empirical , IPO prospectus' s, 122 VC backed firms	Actual profiles versus prescribed profiles
Shepard, 1999	Assessment Policies	Stability of key success factors, timing of entry, lead time, competitive rivalry, industry related competence, educational capabilities, mimicry, scope	Empirical, mail survey. 66 Venture Capitalists	VC's assessment policies are primarily consistent with those proposed by strategy scholars. The nature of the markets, competition, and decisions made by the management team affect a new venture's survival chances. VC's assess the level of uncertainty and the abilities of the management team when evaluating a new venture.
Shepard, 2000	Actual Decision Making	New venture profitability, timing of entry, key success factor stability, educational capability, lead time, competitive rivalry, mimicry, scope, industry related competence.	Empirical, mail survey. 66 Venture Capitalists	'In use' versus 'espoused' decision making of venture capitalists. In self reporting VC's tended to overstate the least important criteria and understate the most important criteria. VC's had limited introspection into their decision-making.
Zacharakis & Shepard, 2001	Cognitive Theories and Decision Making	Market familiarity, leadership ability, proprietary protection, market size and market growth, track record, competitors, competitor strength, completeness of team, product superiority, time to development, buyers concentration.	Empirical, experiment. 53 Venture Capitalists	VC's are overconfident and overconfidence negatively affects VC decision accuracy. Level of overconfidence depended on amount of information, type of information and VC's belief in the venture. VC's are intuitive decision makers and had an availability bias in their decision-making.

Shepard et al., 2003	Decision Making and Experience	Experience: number of years as a VC Decision quality: Reliability, consensus, performance relative to a bootstrapping model.	Experiment, Personal and Mail Survey. 66 VC Companies. Conjoint Analysis	For relatively inexperienced VC's increasing experience is associated with improved performance. Beyond a specific point further gains in experience are associated with actual reductions in reliability and performance. 14 years experience is optimal.
Norton & Tenenbaum, 1993	Venture Capitalists' Risk Management Strategies	Investment diversification strategy, various stages of financing, ability to time IPO markets. Specialisation and information sharing	Empirical, Mail Survey. 98 VC Firms	Venture capitalists seek to control portfolio risk through specialisation rather than diversification as generally assumed in financial theory.
De Clercq et al., 1999	Realised Strategy	Number of portfolio companies, average ownership, investment risk/return ownership, geographic diversification, stage diversification, VC experience	Empirical Mail Survey 15 VC Firms Investments 1994-1997	Industry Scope Specialisation and Geographic Diversification Over Time. Macro and Micro Level Processes Were Consistent
Schefczyk & Gerpott, 2000	Manager Qualifications and Performance	Industry, management, educational and functional experience, portfolio company and VC firm performance, manager turnover rate, venture capital influence on manager turnover	Empirical Mail Survey, 103 VC Firms.	Education and Experience - Performance Measures
Sorenson & Stuart, 2001	Spatial Distribution of VC Investments	Geographic distance, Industry distance, Control variables; prior investment, investment stage, supply of active venture capitalists, prior state experience.	Venture Economics Database (Matched Samples of 1, 025 VC Firms and 7, 590 Target Companies)	Prevalence of Localised Exchange: Physical and Industry space concentration. Inter-firm relationships in the venture capital community reduce spatial limitations in the flow of information.

Appendix 5

On-line Questionnaire

1)English Version

2)Swedish Version

Question

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Venture Capital Management Survey

There are 7 sections to this questionnaire. The survey should take about 20 minutes to complete. If you wish you can stop at any time and return at a later time to complete the questionnaire through the link provided in the email. Your responses are saved every time that you click on **NEXT**.

It is very important for the results of this study that we receive your response, and confidentiality is assured.

The results and analysis of the survey will be made available in aggregate form to those who have participated.

If there are any difficulties with the online version of the survey the responses can be collected via telephone, or in a face to face interview.

Please feel free to contact me by email or telephone at any time if you have any questions or comments about the survey.

Thank you very much for your time and effort!



Contact details:

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Egenskaper:

Villkor:
 - Inga villkor

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Progress indicator

Section 1: Demographics

Here we ask you questions about you and your firm.

Egenskaper:

Villkor:
 - Inga villkor

1

Please provide the following information about yourself and your firm.

Name

Your title/position?

How long have you had this position? (years)

In what year was your firm founded?

What is the firm's total capital under management? (SEK)

How many investment managers/partners do you have at the firm?

of these; how many are Swedish nationals?

What is the percentage of lead investments in the firms portfolio?

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

2

Please indicate the actual current portfolio in terms of investment stage. Use the classification that applies to the current status of the portfolio company.

Seed firms

Start-up firms

Expansion firms

Other (please specify) firms

Egenskaper:

- Respondenten får svara blankt
- Svar skall vara numeriskt
- Lägsta tillåtna svar: 0
- Högsta tillåtna svar: 99

Villkor:

- Inga villkor

3

What is the growth situation of your firm in 2006?

1							7
Rapid decline	2	3	4	5	6	Rapid Growth	
○	○	○	○	○	○	○	

2006 situation

Egenskaper:

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Villkor:

- Inga villkor

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Section 2: Investment Strategy

The following questions ask about the firm's current investment approach, and the focus that you may have in regards to your investment choices.

Egenskaper:

Villkor:

- Inga villkor

4 Please indicate your firm's current investment focus in terms of sector.

- One sector
- Multiple, related sectors
- Multiple, unrelated sectors
- Our investments are not limited by sector

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

5 Please indicate your firm's current investment focus in terms of stage. Check all that apply.

- seed
- start-up
- early growth
- expansion

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

6 Please indicate your firm's current investment focus in terms of geography. Check all that apply.

- Local region
- Sweden
- Nordic region outside of Sweden
- Europe outside of Nordic region
- Outside Europe

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

7 To what extent have discussions and/or formal contracts with your limited partners had an impact on your actions in the following areas?

	1 Not at all	2	3	4	5	6	7 To a very large extent
Selection of portfolio firms in terms of the stage of investment? (eg. only expansion stage)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selection of the sector that you invest in?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The geographical region for investment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The type of exit for your investments?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The length of investment holding?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of co-investors/ syndication?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- The extent of due-diligence prior to investment?
- The contracted terms with your portfolio firms?
- The reporting requirements by your portfolio firms?
- The frequency of your interaction with your portfolio companies?
- The use of milestone financing?

Egenskaper:
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Villkor:
- Inga villkor

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Section 3: Relationship structure

Egenskaper:

Villkor:
- Inga villkor

8 Please rate the importance of the following traits when assessing a prospective management team/entrepreneur.

	1 Not required	2	3	4	5	6	7 Critical
Insightful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forecasting ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organisational management ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk management ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Past experience on related business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive outsiders view of management ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Past management record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Degree of technical knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career profile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

9 To what extent does your firm require information from your portfolio firms for the following activities?

1 Never 2 3 4 5 6 7 Always

Recruitment - top levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruitment - all levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer negotiations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pricing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product line changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rumuneration agreement changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Villkor:
- Inga villkor

10 How often do you (your firm) communicate with the portfolio firms in the following ways?

	Daily	Weekly	Monthly	Bi-monthly	Semi-annually	Annually	Less Frequently
Face to face - Formal meeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face to face - Informal discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - please specify below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Villkor:
- Inga villkor

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Section 4: Roles and Tasks

Egenskaper:

Villkor:
- Inga villkor

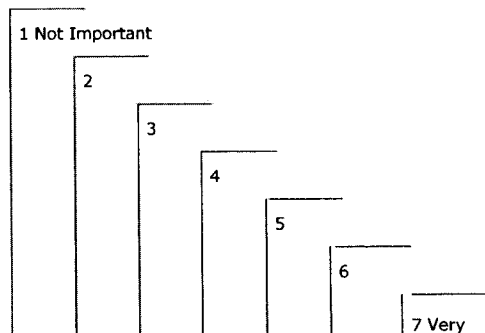
11 Given your firms current investment approach, who (venture capitalist or portfolio company) carries out the following activities at the portfolio firms?

	1 Only VC	2	3	4	5	6	7 Only Portfolio firm
Search for management team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interview and select management team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiate employment terms with top level management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiate employment terms with employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtain alternate debt financing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtain alternate equity financing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of initial business strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formulate ongoing business strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Select vendors/suppliers/equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solicit customers/distributors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Replace management personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop actual product/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop production/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formulate marketing plans *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivate personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor financial performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor operating performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage crisis and problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Villkor:
- Inga villkor

12 At your firm, please rate the importance of the following roles towards your portfolio firms



Important

We are a sounding board: Listen, respond objectively, frankly and truthfully	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a financier: Provide or arrange finance in a timely manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a business advisor: Discuss plans, review targets, offer feedback, provide management assistance, note threats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a friend/confidante: Concerned for CEO and management, go out of the way for CEO management, listen to CEO/management problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a mentor/coach: Provide encouragement, positive reinforcement, support and motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a source of professional contacts: know/ can locate lawyers etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a source of industry contacts: Help generate orders, reach licencing agreements, locate key suppliers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a management recruiter: Help locate key members for management team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

13 Compared to other firms in the Swedish venture capital industry, how would you rate your firm's effectiveness in fulfilling these roles?

	1 Not at all effective	2	3	4	5	6	7 Very effective
We are a sounding board: Listen, respond objectively, frankly and truthfully	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a financier: Provide or arrange finance in a timely manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a business advisor: Discuss plans, review target, offer feedback, provide management assistance, note threats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a friend/confidante: Concerned for CEO and management, go out of the way for CEO/Management, listen to CEO/Management problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a mentor/coach: Provide encouragement, positive reinforcement, support and motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are a source of professional contacts:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Know/can locate lawyers etc.

We are a source of industry contacts: Help generate orders, reach licencing agreements, locate key suppliers etc.

We are a management recruiter: Help locate key members for management team

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Section 5: Industry and Management Opinions

The following section asks about your firm's general beliefs in a range of areas including the firm's general stance towards entrepreneurs, the venture capital industry, and the management of portfolio firms.

Egenskaper:

Villkor:

- Inga villkor

14 Please indicate the degree to which you agree with the following statements.

	1 Fully disagree	2	3	4	5	6	7 Fully agree
The venture capital industry as a whole is co-operative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of investment decision models improves the success of venture capital firms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important that we have strong continuity of partners and associates in our firm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to make decisions quickly is important for success in this industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In our firm we make many of our major decisions based on our intuition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portfolio companies should be monitored closely to ensure alignment with our (vc) company goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Entrepreneurs are best left alone unless assistance is requested
- From our perspective, an entrepreneur's previous failure is judged favourably
- Previous entrepreneurs make the best venture capitalists
- In our firm we have favourite portfolio firms that receive preferential treatment
- At our firm we only have contact with our portfolio firms to protect our investment interest.

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

15



Please indicate the degree to which you agree with the following statements.

	1 Fully disagree	2	3	4	5	6	7 Fully agree
It is crucial that the intended interaction with the portfolio company be stated in a detailed contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contracted terms with the portfolio companies should be followed without exception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An entrepreneur must be prepared to put the business first at all times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entrepreneurs should be prepared to accept low salaries while the business is being established	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct performance-based monetary rewards are the optimal motivational tool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal disagreements with portfolio company managers should be dealt with decisively and assertively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving general advice to portfolio firms is better than providing specific directives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entrepreneurs should forego holidays and family leave during the start-up phase of their business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To operate in Sweden it is important for the firm to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

have a strong position in the industrial network

It is important for a venture capitalist to have direct experience in the United States

Venture capitalists are in a superior hierarchical position to a portfolio company

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

16



Please indicate the degree to which you agree with the following statements.

	1 Fully disagree	2	3	4	5	6	7 Fully agree
The ability to generate fresh contacts is an important entrepreneurial skill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The most important part of our venture capital firm is the individual decision makers rather than the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are responsible for the overall wellbeing of individuals at our portfolio companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We want our portfolio companies to think of us as one of the team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are responsible for training the portfolio management teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be positive if our firm could attract more funds from outside of Sweden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be positive for our firm if we could attract more funds from the United States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We actively structure our firm to be attractive to foreign investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our role is to find interconnections and synergies between our portfolio firms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portfolio companies are our customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If our portfolio companies run into difficulties we	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

quickly withdraw

We need to build entrepreneur confidence

We need to help Swedish entrepreneurs be more like entrepreneurs in the U.S.

Our venture capital team works best if we all have common industry experience

It is natural that the relationship between venture capitalist and portfolio firm is adversarial

We make many important decisions with our portfolio companies in informal social settings

The best entrepreneurs are those without a long corporate employment experience

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

T



Section 6: Industry perceptions

The following questions ask about your firm's perceptions of the venture capital industry in Sweden as a whole.

Egenskaper:

Villkor:

- Inga villkor

17

Please indicate the degree to which you agree with the following statements.

	1 Fully Disagree	2	3	4	5	6	7 Fully Agree
When someone criticises the Swedish venture capital industry, it feels like a personal insult	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At our firm, we are very interested in what others think about the Swedish venture capital industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When people at our firm talk about the Swedish venture capital industry, we usually say 'we' rather than 'they'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pop 12/10

This industry's successes are my successes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When someone praises the Swedish venture capital industry, it feels like a personal compliment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a story in the media criticised the Swedish venture capital industry, we would feel embarrassed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People in general in Sweden think highly of the Swedish venture capital industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is considered prestigious in the Swedish general business community to have worked in the Swedish venture capital industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business people in other countries look down on the Swedish venture capital industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Swedish venture capital industry does not have a good reputation in the general community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A person seeking to advance his/her career internationally would downplay his/her association with the Swedish venture capital industry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

18

To what extent do you identify with the following communities?
By 'identify' we mean that you consider yourself a part of, draw inspiration from, and model yourself on that specific community of firms.

	1 Not at all	2	3	4	5	6	7 To a great extent
The Swedish venture capital community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Swedish private equity community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The global venture capital community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The global private equity community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The US venture capital community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The US private equity community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:
- Respondenten får svara blankt

Villkor:
- Inga villkor

19



Section 7: This is the final section of the survey and we ask about the fund rounds of your firm. No data will be connected to individual firms. Should you prefer to be personally contacted to respond to the following questions, then please indicate this below.

If your firm is currently listed, or evergreen, the questions may still apply - we are interested in the original funding of the firm.

- No, I would prefer not to answer questions on capital rounds in a survey. Please contact me by telephone.

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

20

How many capital rounds has your firm had?

- None
- 1 capital round
- 2 capital rounds
- 3 capital rounds
- 4 or more capital rounds

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa inte frågan om
(Fråga 19:')

Section 7: This is the final section of the survey and we ask about the fund rounds of your firm. No data will be connected to individual firms. Should you prefer to be personally contacted to respond to the following questions, then please indicate this below. If your firm is currently listed, or evergreen, the questions may still apply - we are interested in the original funding of the firm.' besvarats med 'No, I would prefer not to answer questions on capital rounds in a survey. Please contact me by telephone.')

21

First Round

Year of first fund round

Amount of first round (SEK):

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '1 capital round')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

22

For the first round of funds, who were your limited partners? Please check all that apply.

- Private investors
- Banks
- Pension funds
- Insurance companies
- Other financial institutions

- Government
- Corporate investors

Egenskaper:
- Respondenten får svara blankt

Villkor:
Visa frågan om
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '1 capital round')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

23 **What was the geographical origin of the first (1st) round of funds?**
Please mark all that apply.
If no funds originated from a given geographical region, please indicate this with a 0%.

	0%	1-20%	21-40%	41-60%	61-80%	81-99%	100%
Sweden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Nordic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Europe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U.S.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other - please specify below	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please specify:

Egenskaper:
- Respondenten får svara blankt

Villkor:
Visa frågan om
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '1 capital round')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

24 **If funds were raised in Europe, please list below the specific country or countries in Europe where this was from.**

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '1 capital round')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

25

Second Round**Year of second (2nd) fund round****Amount of second round (SEK):****Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

26

For the second round of funds, who were your limited partners? Please check all that apply.

- Private investors
- Banks
- Pension funds
- Insurance companies
- Other financial institutions
- Government
- Corporate Investors

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')

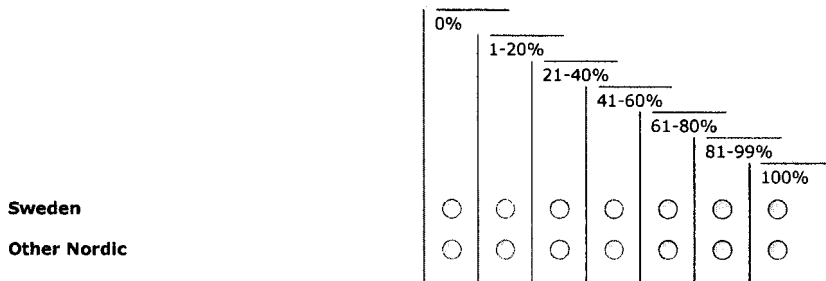
eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

27

What was the geographical origin of the second (2nd) round of funds? Please mark all that apply.

Europe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
U.S.A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - please specify below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify:

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

28 **If funds were raised in Europe, please list below the specific country or countries in Europe where this was from.**

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '2 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

29 **Third Round**

Year of third (3rd) fund round

Amount of third round (SEK):

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')

eller

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

30 **For the third round of funds, who were your limited partners? Please check all that apply.**

- Private investors
- Banks
- Pension funds

- Insurance companies
- Other financial institutions
- Government
- Corporate investors

Egenskaper:
- Respondenten får svara blankt

Villkor:
Visa frågan om
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

**31 What was the geographical origin of the third (3rd) round of funds?
Please mark all that apply.**

	0%	1-20%	21-40%	41-60%	61-80%	81-99%	100%
Sweden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Nordic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Europe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U.S.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other - please specify below	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please specify:

Egenskaper:
- Respondenten får svara blankt

Villkor:
Visa frågan om
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
eller
(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

32 If funds were raised in Europe, please list below the specific country or countries in Europe where this was from.

Egenskaper:
- Respondenten får svara blankt

Villkor:

Visa frågan om
 (Fråga 20: 'How many capital rounds has your firm had?' besvarats med '3 capital rounds')
 eller
 (Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

33 Fourth Round

Year of fourth (4th) fund round

Amount of fourth round (SEK):

Egenskaper:
 - Respondenten får svara blankt

Villkor:
 Visa frågan om
 (Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

34 For the fourth (4th) round of funds, who were your limited partners? Please check all that apply.

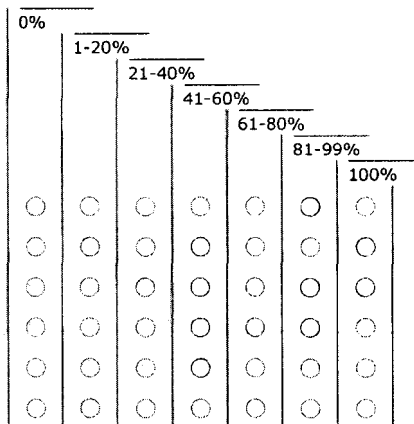
- Private investors
- Banks
- Pension funds
- Insurance companies
- Other financial institutions
- Government
- Corporate investors

Egenskaper:
 - Respondenten får svara blankt

Villkor:
 Visa frågan om
 (Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

35 What was the geographical origin of the fourth (4th) round of funds? Please mark all that apply.

- Sweden
- Other Nordic
- Europe
- Asia
- U.S.A
- Other - please specify below



Please specify:

Egenskaper:
 - Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

36

If funds were raised in Europe, please list below the specific country or countries in Europe where this was from.

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

37

Has your firm raised further rounds of capital?

 Yes No**Egenskaper:**

- Respondenten får INTE svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'How many capital rounds has your firm had?' besvarats med '4 or more capital rounds')

38

You will be contacted shortly to arrange an interview. Your participation in this survey is highly appreciated.

**Clara Sutton
Institute of International Business
Department of Marketing and Strategy
Stockholm School of Economics
+46-8-7369518
070 5524267**

If you have any additional comments, please add them here. You will need to click NEXT to save.

Thank you!

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 19: ')



Section 7: This is the final section of the survey and we ask about the fund rounds of your firm. No data will be connected to individual firms. Should you prefer to be personally contacted to respond to the following questions, then please indicate this below. If your firm is currently listed, or evergreen, the questions may still apply - we are

Interested in the original funding of the firm.' besvarats med 'No, I would prefer not to answer questions on capital rounds in a survey. Please contact me by telephone.')

39

We do not require any further information on your firms fund rounds at this stage, but may contact you to request your co-operation with supplementary information.

Your participation in this survey is highly appreciated.

**Clara Sutton
Institute of International Business
Department of Marketing and Strategy
Stockholm School of Economics
+46-8-7369518
070 5524267**

If you have any additional comments, please add them here. You will need to click NEXT to save.

Thank you!

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 37: 'Has your firm raised further rounds of capital?' besvarats med 'Yes')

40

Thank you very much for your co-operation with this survey!

**Clara Sutton
Institute of International Business
Department of Marketing and Strategy
Stockholm School of Economics
+46-8-7369518
070 5524267**

If you have any additional comments, please add them here. You will need to click NEXT one more time to save your comments.

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa inte frågan om

(Fråga 19:')



Section 7: This is the final section of the survey and we ask about the fund rounds of your firm. No data will be connected to individual firms. Should you prefer to be personally contacted to respond to the following questions, then please indicate this below. If your firm is currently listed, or evergreen, the questions may still apply - we are interested in the original funding of the firm.' besvarats med 'No, I would prefer not to answer questions on capital rounds in a survey. Please contact me by telephone.')

eller

(Fråga 37: 'Has your firm raised further rounds of capital?' besvarats med 'Yes')

Question

T

Venture Capital Management Survey

Denna enkät har 7 avdelningar. Vanligtvis tar enkäten ca 20 minuter att fylla i. Om du vill kan du göra ett uppehåll och återvända senare för att fylla i resten av enkäten. Dina svar sparas varje gång du klicka på **NEXT**.

För ett bra resultat av enkäten är det mycket viktigt att vi får ditt svar. Vi garanterar konfidentialitet, och ingen information kommer att lämnas ut på ett sätt som gör att den kan knytas till enskilda personer eller företag. Resultaten och analysen som baseras på enkäten kommer att göras tillgängliga för dem som har medverkat i enkäten.

Om du har några problem med on-line-versionen av enkäten kan vi ta emot dina svar genom en telefonintervju eller ett intervjumöte.



Kontakt uppgifter:

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Egenskaper:

Villkor:

- Inga villkor

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Avdelning 1: Demografi

Följande avdelning avser demografisk information om företaget, och om den person som besvarar enkäten.

Vi garanterar konfidentialitet, och ingen information kommer att lämnas ut på ett sätt som gör att den kan knytas till enskilda personer eller företag.

Egenskaper:

Villkor:

- Inga villkor

1

Var vänlig lämna följande information om dig själv och ditt företag:

Namn

Titel/befattning

Hur länge har du haft denne befattning? (antal år)

År för företagets grundande?

Totalt värde på fonder för närvarande under investeringskontroll? (SEK)

Antal associates/partners? (antal personer)

varav svenska medborgare?

Procentuell andel av lead investments i portföljen?

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

2

Var vänlig ange antal företag i olika investeringsskeden i portföljen för närvarande. Använd den klassificering som gäller portföljföretagens nuvarande status.

Groddföretag	företag
Start-ups	företag
Expansionsföretag	företag
Andra företag (var vänlig specificera nedan)	företag

Egenskaper:

- Respondenten får svara blankt

- Svar skall vara numeriskt

- Lägsta tillåtna svar: 0

- Högsta tillåtna svar: 99

Villkor:

- Inga villkor

3

Hur är tillväxten i ditt företag år 2006?

1 Snabb nedgång	2	3	4	5	6	7 Snabb tillväxt
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Situationen 2006

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Avdelning 2: Investeringsstrategi

De följande frågorna handlar om företagets investeringsstrategi, och företagets fokus med avseende på investeringsbeslut.

Egenskaper:

- Inga villkor

4 Var vänlig ange ditt företags nuvarande investeringsfokus gällande sektorer.

- En sektor
- Flera relaterade sektorer
- Flera orelaterade sektorer
- Våra investeringar har inga sektorbegränsningar

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

5 Var vänlig ange ditt företags nuvarande investeringsinriktning gällande investeringskedjen. Kryssa för alla som gäller.

- grodd
- start-up
- tidig tillväxt
- expansion

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

6 Var vänlig ange ditt företags nuvarande investeringsinriktning gällande geografi. Kryssa för alla som gäller.

- Den lokala regionen
- Sverige
- Norden utanför Sverige
- Europa utanför Norden
- Utanför Europa
- Annat (var vänlig specificera nedan)

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

7

I vilken utsträckning har diskussioner och/eller kontrakt med era investerare haft inverkan på ert agerande inom följande områden?

	1 Inte alls	2	3	4	5	6	7 I mycket hög utsträckning
Val av portfölj företag rörande investeringskedan (exv. endast expansionskedet)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Val av sektorer att investera i?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den geografiska region ni investerar i?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Typ av exit för era investeringar?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Längden på investeringsinnehav?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Användande av medinvesterare?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Omfattning av due-diligence före investering?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vilkoren i avtalen med portfölj företagen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Krav på portfölj företagens rapportering?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hur ofta ni har kontakt med portfölj företagen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Användande av milestone-finansiering?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Avdelning 3: Relationsstruktur

Egenskaper:**Villkor:**

- Inga villkor

8

Var vänlig gradera hur viktiga följande aspekter är när ni bedömer en möjlig managementgrupp/entreprenör?

	1 Krävs ej	2	3	4	5	6	7 Kritiskt
Insiktsfull	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prognosförmåga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Koncentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trovärdighet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organisatorisk ledningsförmåga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Förmåga att hantera risker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tidigare erfarenhet inom relaterat företagande	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
En positiv bedömning av ledarskapsförmågan från utomstående	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tidigare ledarskapsprestationer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grad av tekniskt kunnande	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utbildningsbakgrund	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Karriärprofil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

9

I vilken utsträckning begär ditt företag information från portföljföretagen för följande aktiviteter?

	1 Aldrig	2	3	4	5	6	7 Alltid
Rekrytering - toppnivåer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rekrytering - alla nivåer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kundförhandlingar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kundkontrakt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prissättning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finansiering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Förändring av produktlinjer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Förändringar i ersättningsavtal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

10

Hur ofta kommunicerar du eller ditt företag, med portföljföretag på följande sätt?

Varje dag
Någon gång i veckan
Någon gång i månaden
Någon gång varannan månad
Någon gång varje halvår

Någon gång varje år

							Mer sällan
Möten - formella	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Möten - informella	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-post	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telefon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Övrigt - var vänlig specificera nedan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Avdelning 4: Roller och uppgifter

Egenskaper:**Villkor:**

- Inga villkor

11

Enligt företagets nuvarande hållning, vem (venture capitalist eller portföljbolag) utför följande aktiviteter?

	1 Endast VC	2	3	4	5	6	7 E för
Söka efter ledningsgruppen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intervjua och välja ut ledningsgruppen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Förhandla anställningsvillkor med högsta ledningen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Förhandla anställningsvillkor med anställda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anskaffa alternativ lånefinansiering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anskaffa alternativt eget kapital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utveckla inledande affärsstrategi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utforma löpande affärsstrategi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Välja försäljare/leverantörer/utrustning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Värva kunder/distributörer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hitta ersättare för ledningspersonal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utveckla faktiska produkter/tjänster	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utveckla produktion/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utforma marknadsplaner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivera personal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Övervaka finansiella resultat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Övervaka operativa resultat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hantera kriser och problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

12. Var vänlig ranka hur viktiga för ditt företag följande roller är gentemot era portfölj företag.

	1	2	3	4	5	6	7
	Inte viktigt						Mycket viktigt
Vi är ett bollplank: Lyssnar och ger objektiva, uppriktiga och sanningsenliga svar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är en finansiär: Tillhandahåller och arrangerar finansiering vid rätt tidpunkt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är affärsrådgivare: Diskuterar planer, bedömer mål, erbjuder feedback, tillhandahåller hjälp till ledningen, uppmärksammar hot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är vänner/förtrogna: Bekymrar oss för VD:n och ledningen, hjälper till i VD:s arbete, lyssnar till VD:ns/ledningens problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är en mentor/tränare: ger uppmuntran, positiv förstärkning, stöd och motivering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är en källa till professionella kontakter: känner till/kan hitta jurister, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är en källa till industrikontakter: hjälper till att generera affärer, skapa licensieringsavtal, hitta viktiga leverantörer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är ledningsrekryterare: hjälper till att hitta nyckelpersoner i ledningsgruppen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

13. Jämfört med andra företag i den svenska branchen, hur effektiva skulle du bedöma att ni är när det gäller att uppfylla dessa roller?

	1	2	3	4	5	6	7
	Inte effektiva alls						Mycket effektiva
Vi är ett bollplank: Lyssnar och ger objektiva, uppriktiga och sanningsenliga svar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är en finansiär: Tillhandahåller och	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

arrangerar finansiering vid rätt tidpunkt

Vi är affärsrådgivare: Diskuterar planer, bedömer mål, erbjuder feedback, tillhandahåller hjälp till ledningen, uppmärksammar hot

Vi är vänner/förtrogna: Bekymrar oss för VD:n och ledningen, hjälper till i VD:s arbete, lyssnar till VD:ns/ledningens problem

Vi är en mentor/tränare: ger uppmuntran, positiv förstärkning, stöd och motivering

Vi är en källa till professionella kontakter: känner till/kan hitta jurister, etc

Vi är en källa till industrikontakter: hjälper till att generera affärer, skapa licensieringsavtal, hitta viktiga leverantörer

Vi är ledningsrekryterare: hjälper till att hitta nyckelpersoner i ledningsgruppen

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Avdelning 5: Åsikter om branschen

Den följande avdelningen handlar om ert företags generella uppfattningar inom ett antal områden såsom företagets generella hållning gentemot entreprenörer, venture capital-branschen och förvaltningen av portföljbolag.

Egenskaper:

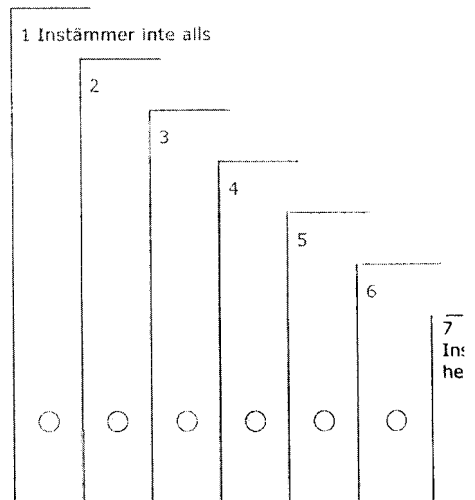
Villkor:

- Inga villkor

14



Indikera i vilken utsträckning du instämmer med följande påståenden.



Venture capital-industrin som helhet är samarbetsinriktad

Att använda investeringsbeslutsmodeller gör

venture capital-bolag mer framgångsrika

Det är viktigt att vi har stark kontinuitet bland partners och anställda i vårt företag

Förmågan att fatta snabba beslut är viktig för att nå framgång i den här branchen

I vårt företag fattar vi många av våra stora beslut baserat på vår intuition

Portföljbolag bör övervakas noggrant för att försäkra oss om att de agerar i enlighet med vårt företags mål

Entreprenörer bör lämnas i fred såvida de inte ber om hjälp

Ur vårt perspektiv ser vi positivt på att en entreprenör har misslyckats tidigare

Före detta entreprenörer blir de bästa riskapitalisterna (venture capitalists)

I vårt företag har vi favoriter bland våra portföljbolag som får specialbehandling

I vårt företag har vi bara kontakt med våra portföljbolag för att bevaka våra investeringsintressen

Egenskaper:

- Respondenten får svara blankt

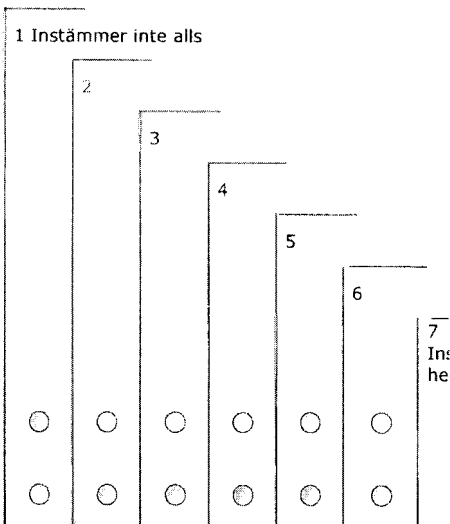
Villkor:

- Inga villkor

15



Indikera i vilken utsträckning du instämmer med följande påståenden.



Det är avgörande att den avsedda interaktionen med portföljbolaget specificeras i ett detaljerat kontrakt

Vilkoren i kontrakten med portföljbolagen bör följas utan undantag

- En entreprenör måste vara beredd att alltid sätta företaget först
- En entreprenör måste vara beredd att acceptera låga löner medan företaget etablerar sig
- Direkt resultatbaserade monetära belöningar är det optimala motivationsverktyget
- Oenighet om målsättningar med portföljföretagets chefer bör hanteras bestämt
- Att ge generella råd till portföljbolag är bättre än att ge specifika direktiv
- Entreprenörer bör avstå från semester och föräldraledighet under företagets uppstartsfas
- För att kunna vara verksam i Sverige är det viktigt för företaget att ha en stark position i det industriella nätverket
- Det är viktigt för venture capitalists att ha direkt erfarenhet från USA
- En venture capitalist är hierarkiskt överordnad portföljbolagen

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

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Indikera i vilken utsträckning du instämmer med följande påståenden.

Förmågan att upprätta nya kontakter är en viktig egenskap hos entreprenörer

Den viktigaste delen av vårt bolag är de enskilda

1 Instämmer inte alls

2

3

4

5

6

7 Instämmer helt

beslutsfattarna snarare än gruppen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är ansvariga för det generella välbefinnandet hos personerna i våra portföljbolag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi vill att portföljbolagen ska se oss som en 'del i laget'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi är ansvariga för att utbilda portföljbolagens chefer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det vore positivt för oss om vi kunde attrahera mer kapital från utanför Sverige	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det vore positivt för oss om vi kunde attrahera mer kapital från USA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi anpassar aktivt vårt företag för att bli attraktivt för utländska investerare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vår roll är att finna kopplingar och synergier mellan våra portföljbolag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portföljbolag är våra kunder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Om våra portföljbolag får problem drar vi oss snabbt ur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi behöver stärka entreprenörernas självförtroende	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi behöver hjälpa svenska entreprenörer att bli mer som entreprenörer i USA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vårt venture capital team fungerar bäst om vi alla har gemensam industrierfarenhet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Det är naturligt att förhållandet mellan venture capitalist och portföljbolag är konfliktfyllt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vi fattar många viktiga beslut tillsammans med våra portföljbolag i informella sociala sammanhang	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De bästa entreprenörerna är de utan lång erfarenhet av att ha arbetat i företag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

T



Avdelning 6:

Den följande frågor handlar om ert företags uppfattningar om den svenska venture capital-branschen som helhet.

Egenskaper:

Villkor:

- Inga villkor

17 **Indikera i vilken utsträckning du instämmer med följande påståenden.**

	1	2	3	4	5	6	7
	Instämmer inte alls						
När någon kritiserar den svenska venture capital-branschen känns det som en personlig förolämpning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
På vårt företag är vi mycket intresserade av vad andra tycker om den svenska venture capital-branschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
När vi inom vårt företag pratar om den svenska venture capital-branschen säger vi vanligtvis 'vi' snarare än 'de'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den här branchens framgångar är mina framgångar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
När någon berömmar den svenska venture capital-branschen känns det som en personlig komplimang	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Om den svenska venture capital-branschen kritiserades i media skulle vi känna oss generade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I Sverige har människor i allmänhet höga tankar om den svenska venture capital-marknaden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I det svenska näringslivet är det presigefyllt att ha arbetat på den svenska venture capital-marknaden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affärsmänniskor i andra länder ser ner på den svenska venture capital-marknaden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den svenska venture capital-branschen har inte ett gott rykte i svenska näringslivet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
En person som söker avancera utomlands i karriären skulle tona ner sin koppling till den svenska venture capital-branschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

18

I vilken utsträckning identifierar du dig med följande grupper?**Med att "identifiera sig med" menar vi att du anser dig vara en del av, hämtar inspiration ifrån, och använder den gruppen av företag som en förebild.**

	1	2	3	4	5	6	7 I stor utsträckning
Den svenska venture capital-branschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den svenska riskkapitalbranschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den globala venture capital-branschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den globala riskkapitalbranschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den amerikanska venture capital-branschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den amerikanska riskkapitalbranschen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annan (ange nedan vilken)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

19

**Avdelning 7:**

Nästa del handlar om ditt företags kapitalrundor. Ingen data kommer att kopplas till individuella företag. Om du föredrar att bli kontaktad för att besvara följande frågor ange det nedan.

Nej, jag vill inte svara på frågor om kapitalrundor i blanketten. Kontakta mig per telefon.

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

20

Hur många kapitalrundor har ditt företag haft?

- Ingen
- 1 runda
- 2 rundor
- 3 rundor



4 eller fler rundor

Egenskaper:

- Respondenten får svara blankt

Villkor:

- Inga villkor

21

Första Rundan**År för första (1:a) rundan****Belopp för första rundan (SEK):****Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '1 runda')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

22

I er första kapitalrunda vilka var era kapitalpartners. Ange alla alternativ som passar.

- Privata investerare
- Banker
- Pensionsfonder
- Försäkringsbolag
- Andra finansiella institutioner
- Staten
- Företag
- Annan (ange nedan vilken)

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '1 runda')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

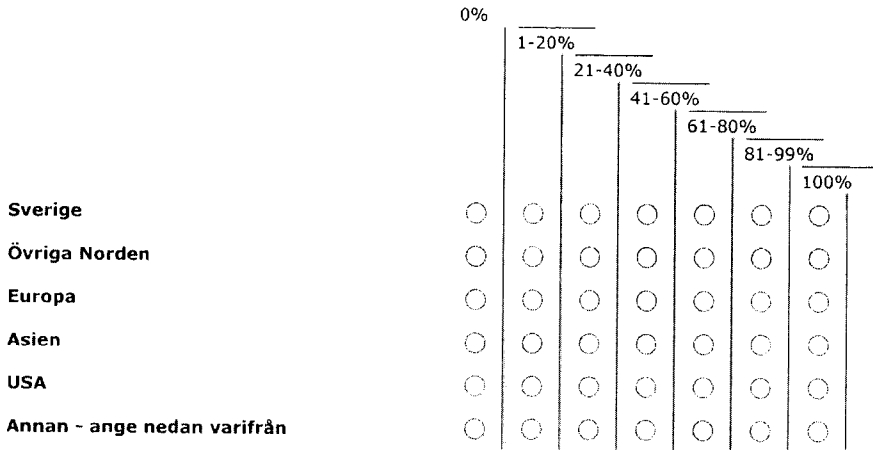
(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

23

Variifrån (geografiskt) kom kapitalet i den första kapitalrundan? Ange alla som passar. Om inget kapital kom från en given geografisk region ange 0% för den.



Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '1 runda')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

24

Om aktuellt, ange nedan från vilket eller vilka länder i Europa kapitalet i den första rundan kom.

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '1 runda')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

25

Andra Rundan

Är för andra (2:a) rundan**Belopp för andra rundan (SEK):****Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

26

I ert andra kapitalrunda vilka var era kapitalpartners. Ange alla alternativ som passar.

- Privata investerare
- Banker
- Pensionsfonder
- Försäkringsbolag
- Andra finansiella institutioner
- Staten
- Företag
- Annan - ange nedan vilken

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

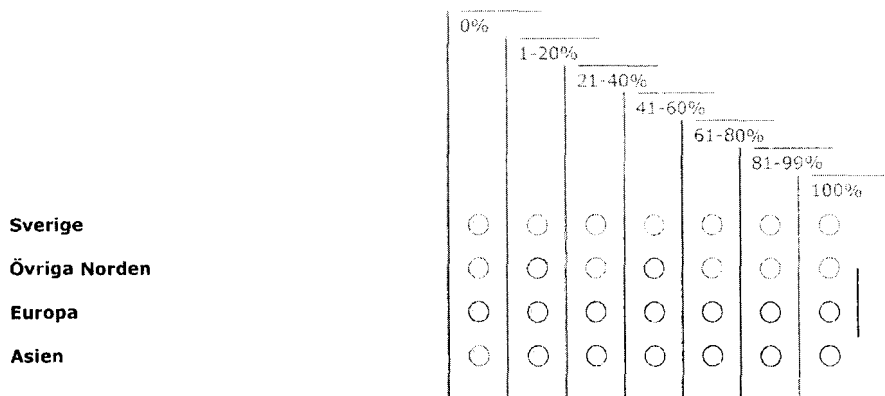
eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

27

Varifrån (geografiskt) kom kapitalet i den andra kapitalrundan? Ange alla alternativ som passar. Om inget kapital kom från en given geografisk region ange 0% för den.

USA

Annand - ange nedan varifrån

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

28

Om aktuellt, ange nedan från vilket eller vilken länder i Europa kapitalet i den andra runden kom.

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '2 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

29

Tredje Rundan**År för tredje (3:e) rundan****Belopp för tredje rundan (SEK):****Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

30

I er tredje kapitalrunda vilka var era kapitalpartners. Ange alla alternativ som passar.

- Privata investerare
- Banker
- Pensionsfonder
- Försäkringsbolag
- Andra finansiella institutioner
- Staten

Företag Annan - ange nedan vilken**Egenskaper:**

- Respondenten får svara blankt

Villkor:

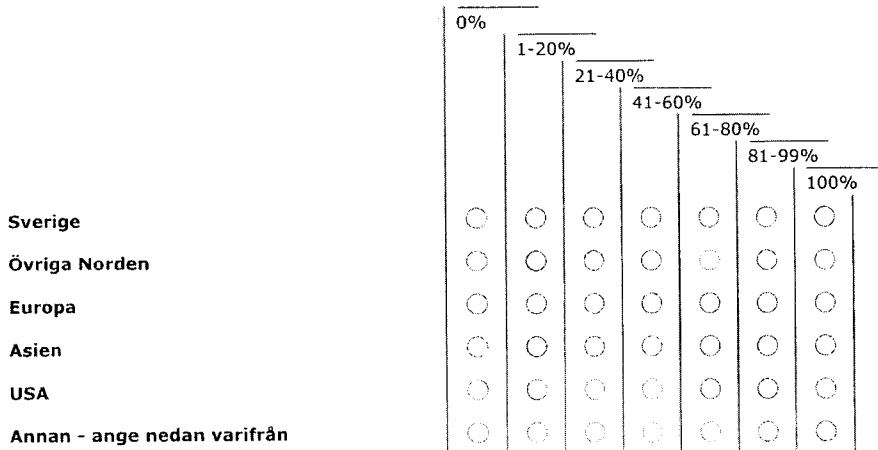
Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

- 31 **Varifrån (geografiskt) kom kapitalet i den tredje kapitalrundan? Ange alla alternativ som passar. Om inget kapital kom från en given geografisk region ange 0% för den.**

**Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

- 32 **Om aktuellt, ange nedan från vilket land eller vilka länder i Europa kapitalet i den tredje runden kom.**

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '3 rundor')

eller

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

33

Fjärde Rundan**År för fjärde (4:e) rundan****Belopp för fjärde rundan: SEK****Egenskaper:**

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

34

I er fjärde kapitalrunda vilka var era kapitalpartners. Ange alla alternativ som passar.

- Privata investerare
- Banker
- Pensionsfonder
- Försäkringsbolag
- Andra finansiella institutioner
- Staten
- Företag
- Annan - ange nedan vilken

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

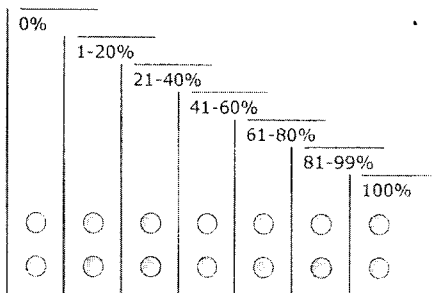
(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

35

Varifrån (geografiskt) kom kapitalet i den fjärde kapitalrundan? Ange alla alternativ som passar. Om inget kapital kom från en given geografisk region ange 0% för den.

Sverige

Övriga Norden



- Europa**
- Asien**
- USA**
- Annan - ange nedan varifrån**

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

- 36** Om aktuellt, ange nedan från vilket land eller vilka länder i Europa kapitalet i den fjärde runden kom.

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

- 37** Har ditt företag haft fler än 4 kapitalrundor?

- Ja
- Nej

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa frågan om

(Fråga 20: 'Hur många kapitalrundor har ditt företag haft?' besvarats med '4 eller fler rundor')

- 38** Du kommer att kontaktas inom kort för att boka en intervju.

Ciara Sutton
Institute of International Business
Department of Marketing and Strategy
Stockholm School of Economics
+46-8-7369518
070 5524267

Om du har några ytterligare kommentarer, vänligen bifoga dem här

Egenskaper:

- Respondenten får svara blankt

Villkor:Visa frågan om
(Fråga 19:')

Avdelning 7: Nästa del handlar om ditt företags kapitalrundor. Ingen data kommer att kopplas till individuella företag. Om du föredrar att bli kontaktad för att besvara följande frågor ange det nedan. ' besvarats med 'Nej, jag vill inte svara på frågor om kapitalrundor i blanketten. Kontakta mig per telefon.'

T Tack så mycket för din medverkan!

Egenskaper:**Villkor:**

- Inga villkor

39 **Vi behöver inte någon ytterligare information om ditt företags kapitalrundor i detta skede, men det är möjligt att vi kontaktar dig för att eventuellt be om kompletterande information.**

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070 5524267

Om du har några ytterligare kommentarer, vänligen bifoga dem här

Egenskaper:

- Respondenten får svara blankt

Villkor:Visa frågan om
(Fråga 37: 'Har ditt företag haft fler än 4 kapitalrundor?' besvarats med 'Ja')

T Tack så mycket för din medverkan!

Egenskaper:**Villkor:**

- Inga villkor

40 **Tack så mycket för din hjälp med enkäten!**

Ciara Sutton
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Department of Marketing and Strategy
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Om du har några ytterligare kommentarer, vänligen bifoga dem här

Egenskaper:

- Respondenten får svara blankt

Villkor:

Visa inte frågan om
(Fråga 19:'



Avdelning 7: Nästa del handlar om ditt företags kapitalrundor. Ingen data kommer att kopplas till individuella företag. Om du föredrar att bli kontaktad för att besvara följande frågor ange det nedan. ' besvarats med 'Nej, jag vill inte svara på frågor om kapitalrundor i blanketten. Kontakta mig per telefon.'

eller

(Fråga 37: 'Har ditt företag haft fler än 4 kapitalrundor?' besvarats med 'Ja')

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