FROM VENTURE CAPITAL TO KNOWLEDGE CAPITAL: THE RISE OF KNOWLEDGE INVESTORS

Marko Seppä (ed.)
Foreword

Year 1995 witnessed – besides Finland’s first world championship in ice hockey and her membership in the European Union – the final breakthrough of the Internet browser. Clearly, due to the ICT (r)evolution of the post Cold War era, a transformation process of kin to industrialization is under way in society. The “happy hour” of this transformation, the period of 1995-2000, was marked by, for example, Nokia’s rise from close-to-peril to one of the world’s most valuable businesses and brands.

To understand, enhance, and benefit from this transformation, the European Union crafted its ambitious vision of future, and strategy for 2001-2005, referred to as the eEurope program. Simultaneously – albeit independently – the City of Tampere engaged in a parallel program, in Finland. eTampere, a local pilot of eEurope, comprised six independent subprograms. e-Business Research Center eBRC, a Tampere University of Technology and University of Tampere joint venture, was one of them. As a virtual organisation, established for limited life (2001-2005), eBRC was set to take swift, ambitious, and creative action to “understand business in knowledge society”.

From the beginning, one of the key areas of research interest to eBRC’s own team was to understand what is happening to the classic entrepreneurial dream: The process of building business from “Venture to Capital” (V2C). Albeit far from conclusive, the report at hand provides a summary – a small history, if you will – of eBRC’s V2C research. Several parties played an integral role, in the life of eBRC’s V2C research team, but two enablers deserve to be especially acknowledged: Whereas the eTampere program (City of Tampere) could be said to have provided the necessary “seed financing” for this intellectual adventure, ever since 2001, the “growth financing” provided by the ProACT program (Tekes and Finnish Ministry of Trade and Industry), in 2004-2005 could be said to have ultimately pushed this Venture to Capital.

However, without the contributing authors – and their “knowledge investments” – this journey would never have even started, let alone become completed. These investments could be said to have yielded two “living labs” as test-beds of the academic constructing and paradigm building of the eBRC era: (1) CONNECT Finland and Finnish Co-Entrepreneurs SKY Assn, the world’s first industry association of knowledge investors, and (2) TUT Knowledge Fund, the world’s first structured vehicle for knowledge investing.

All said, only real life experiments such as the ones referred to above, can put the validity of the propositions presented in this report to the ultimate test. Only time will tell what is the true return on investment – on both the financial capital investment and the knowledge capital investment – made in eBRC’s V2C research team.

In Tampere, on December 31, 2005,

Marko Seppä
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Introduction

Marko Seppä

SETTING THE STAGE
Thanks to a “Cold-W ar dividend” – manifested by the breakthrough of the internet browser some ten years ago – a transformation from the industrial society to the knowledge society is rapidly under way all over the world. Public acknowledgement of this transformation is underscored, on both international and local level, by far-reaching knowledge society development programs, such as eEurope and eTampere.

Industrialisation – the transformation from the agricultural society to the industrial society – was marked by automation, organisation of production and labour, search for economies of scale, and the introduction of the (publicly held) corporation as the primary vehicle of capitalism. The limited liability company emerged as the vehicle for sharing risks and distributing profits, and as the legal person for contracting with a growing number of stakeholders. On the human level, the corporation brought together the providers of capital (the capitalists) and those in need of it (as employees). Ultimately, industrialization was also marked by the confrontation between capital (capitalists) and labour, and the rise of the political concept of the working class. This confrontation led to large-scale revolutions in Russia and China, among others, and to the Cold War that threatened all life on earth during 1945-1991.

Civil applications of military technology constituted for unforeseen growth, after the Second World War. With reference to the ICT (r)evolution of the 1990s, very similar effects can be observed in the post Cold War era. Only this time, the whole “post war” world appeared to be going (and growing) in the same way both politically and economically. For some time, globalisation – the creation of a single global (increasingly electronic) market place, rapid financial and regulatory integration, and global division of labour – appeared to stand for a peaceful integration of the entire mankind living in a “global village”. However, an all new confrontation has emerged, in the form of terrorism and, somewhat paradoxically, in deciding on how to tackle it within the world community, since the events of September 11, 2001.

While industrialisation is still ongoing in large parts of the world, “knowledgesation” is rapidly progressing everywhere. While some nations still struggle with becoming industrial societies, others have already reached the stage where they can be labelled knowledge societies. And then there are those living in a mix of all the three different “worlds” simultaneously. For example, India, marked by large-scale industrialisation and many die-hard signs of an agricultural society, boasts, at the same time, elements of one of the world’s most advanced knowledge societies.

FROM INDUSTRIALISATION TO KNOWLEDGESATION
Knowledgeation – the transformation from the industrial society to the knowledge society – is marked by both physical and psychological changes. The operating environment of the business firm is becoming increasingly digital and electronic and, thanks to globalisation, increasingly cross-national and multi-cultural. In the process, capital and labour, the key means of production, are in a profound transformation.
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In a nutshell, the importance of knowledge – human capacity, competence, and commitment (in the right form, in the right place, and at the right time) – is increasing exponentially. Capitalists and labour are being met by an entirely new breed of a working man: The one whose labour (maximal economic contribution) is not "for sale", in the classic sense of the word. This is “labour” that can only be gained as investment – and often to seek other than directly financial returns, as testified by the emergence of open source societies, cases such as Linux and Mozilla Firefox, and, more generally, and the triumph of open source based solutions.

In consequence, the future role and function of the (publicly held) corporation, as the primary vehicle of capitalism, is to some extent unclear. Open source societies are, in fact, a striking example of the emerging vehicles of “knowledgism”. The classic entrepreneurial dream of building a business from idea to IPO – by using a single corporation as the vehicle – is also challenged by the rise of value networks and the power of (established) brands. It is, in fact, quite ironic how the classic growth venture process has become complicated by pluralism so soon after growth entrepreneurship and venture capitalism have become unanimously appraised, in the world, as key ingredients of economic prosperity and renewal.

Historically, business has been based and built on (financial) capital. Owners of capital (capitalists), the key enablers of economy, have been able to hire the hands necessary to produce profits. On the other hand, labour has been readily available, as a commodity, to produce more capital. However, thanks to the giant leap of ICT during the past 10 years, business has rapidly turned from (financial) capital intensive to knowledge (capital) intensive. Many of the best new business ideas, measured by expected returns on invested (financial) capital, are concepts built on knowledge (capital), not (financial) capital. In such undertakings, “labour” – taking the form of knowledge (work) – is no longer a mere commodity. It is, increasingly, the enabler. Consequently, in the emerging knowledge economy, the classic role of (financial) capital, and (financial) capitalists, is diminishing.

In other words, labour is converting into capital – into knowledge capital, to be more precise. A new breed is emerging on the side of the capitalist and the labourer: The ones who own the critical “labouring competence” and are ready to invest their knowledge capital as “knowledgists”. The key challenge of business is no longer to raise financial capital to (thereafter) hire labour as commodity but to “raise labour as capital” and (thereafter) raise financial capital as fuel only. In other words, the key challenge is, increasingly, to establish and acquire the pool of committed competence required by a given new business concept or idea. In this vision, knowledgists are complementing (if not replacing) capitalists as the key enablers of economy.

This transition is faced by start-up entrepreneurs, large corporations, and even public sector organisations alike. Increasingly often, the complexities related to the tasks of an individual (knowledge worker) are so overwhelming that it is unreasonable to expect a person to accomplish adequate results as a salaried employee. On the other hand, gaining the full capacity of such individuals is likely to increase competitiveness and profitability manifold. The difference in whether you sell (for a salary) a partial capacity or invest (for an equity stake) your entire capacity is substantial. This is, in fact, why we think so highly of entrepreneurship: Entrepreneurs can always be expected to invest their entire capacity to an undertaking.
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The proposition of “having to raise knowledge (capital)” has been challenged by a couple of significant obstacles. First, there has been no supply. Knowledge investments and knowledge investors have not been readily available, and no established instruments or procedures for the knowledge investment process have existed. Second, there has been no demand. Entrepreneurs have not signalled any significant, loud and clear call for such action or activity. In short, there has been no visible or organised market for knowledge capital investments.

EVOLUTION OF THE VENTURE-TO-CAPITAL (V2C) CONCEPT

Based on the observations and findings of the research at hand, the (founding) entrepreneurs – the geese who lay the golden eggs for societies at large – can quickly acknowledge that they need to strengthen their entrepreneurial competence base, i.e., their knowledge capital base (not just their financial capital base), when granted the opportunity. In other words, there is a call for knowledge capital investments.

The research presented in this report stands to testify of the demand for knowledge investments. Moreover, the research stands to provide propositions for organising for the supply side. Unlike venture capital investing, which was introduced (and has been largely used) as a tool of economic policy in Europe, in the 1960s, knowledge capital investing should be embraced, from day one, as such a business activity to which venture capital has evolved, over the decades gone by.

A knowledge investor should be thought of as representing one of the three key categories of principals of a growth venture process on its way from idea to IPO or from venture to capital: (i) (founding) entrepreneurs, (ii) knowledge capital investors (such as co-entrepreneurs and “venture knowledgists”), and (iii) venture capital investors (such as business angels and venture capitalists). Ideally, the knowledge investor orchestrates for the value creation by intelligently bundling the founders’ idea with the right mix of (the right) people and (the right) capital to get the job done.

When playing with the thought of potential participation in entrepreneurial ventures as principals – in the classic key role of market economy and capitalism – three critical questions emerge from the research at hand:

- Who (what kind of actors and operators) – exactly and precisely – should be encouraged to emerge in the role of knowledge capital investors?
- Why should such actors be on the move: to realise classic capital gains, to fill the time of their days, or to serve some more pluralistic objectives?
- How should they be organised and which processes and procedures (and strategy logic) should they follow in their knowledge investment activity?

For practical reasons, it would be equally important to establish (i) who (what kind of actors and operators) are less suitable than some others to serve as knowledge investors, (ii) which motivations do not (or are not likely to) lead to successful market breakthroughs, and (iii) which structures and procedures are, in fact, more likely to lead the general prospects of a venture from excellent to adequate or poor.

Rather than providing definite and normative answers to any of the above questions, the following compilation of research papers seeks to offer some food for thought for those dealing with these challenges. This report pools some of the central works of the V2C research team, through the 2001-2005 period, to introduce the core observations.
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and the evolution of the conceptual constructing that has taken place. Herein, each paper serves a somewhat different role. Before going into detail with the individual papers, a short overview of the evolution of the V2C concept is provided.

Originally, the concept of V2C emerged to refer to the “refining” of a venture from prospective to investment-ready (investable), in the eyes of the formal venture capital industry; in other words, the journey of a business “from venture to capital”. Early on, V2C also referred to (i) the market space between venture (development) activities and (venture) capital activities and (ii) the diverse group of operators (V2C players) who acted in the V2C space with the aim of pushing business from venture to capital.

In its widest definition, V2C refers to the entire phenomenon that can be referred to as growth venture activity. This is activity involving (growth oriented) entrepreneurs, V2C players, and VC investors, as well as other stakeholders dedicated (for a reason or another) to new venture success (such as government). In this context, V2C refers to the entire growth venture process and the entire value network around the venture.

In its most recent (and so far sharpest) context V2C refers to knowledge (capital) investing – in contrast to VC which refers to (financial) capital investing. In this light, V2C actors are defined as knowledge investors – either full time based (professional) players referred to as “venture knowledgists” or part time (hobby) based players referred to as “co-entrepreneurs”. An individual knowledge investor can be characterised as a business angel who (primarily) invests knowledge capital (instead of financial capital) or a business mentor who (instead of serving as a philanthropist) becomes an owner partner to the (founding) entrepreneur via knowledge investment.

According to the most recent definition provided by Finnish Co-Entrepreneurs SKY Assn, a co-entrepreneur is a knowledge capital angel (knowledge investor) who accepts a growth oriented entrepreneur’s invitation as an active interim owner-partner to pursue a joint mission of building the underlying business from venture to capital by creating an ‘investable’ (investment-ready), professionally managed company and getting it sufficiently financed for a successful market breakthrough marked (and measured) by an eventual exit – ideally an initial public offering (IPO).

OVERVIEW OF THE PAPERS

Whereas an initial public offering (IPO) can be said to mark the ultimate success on the way from venture to capital, a public defence of a doctoral dissertation can be said mark the same in a researcher’s “V2C process”. During 2001-2005, two such triumphs emerged within eBRC’s V2C research team. Rasila (2004) provided the first systematic exposition of the Venture-to-Capital (V2C) paradigm. Ala-Mutka (2005) marked the end of the journey (of the eBRC era) by constructing a V2C framework for Professional Entrepreneurship and defending his work publicly in late 2005.

This report “begins from the end” with Jukka Ala-Mutka’s quest for strategy logic for growth of young high-technology firms. Ala-Mutka (2004) ponders upon whether success of new companies depends more on the planning of strategy (analysis) or the execution of strategy (action). Execution matters, Ala-Mutka concludes. His findings support the view that – to successfully build business from venture to capital – the focus should be moved from analysis to action.
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In 2001, Marko Seppä and Juha Näsi compiled – for a research conference in South Africa – the seminal depiction of the Venture-to-Capital (V2C) process and of the V2C players. Building on notions on increased knowledge intensity of new venture activity and the institutionalisation of the VC industry, established in Seppä (2000), Seppä and Näsi (2001) present early empirical findings on knowledge investing and the characteristics and typology of knowledge investors.

Harri Kinnunen investigates venture capital funds as investment targets by exploring the institutional investors’ decision criteria for investing in such vehicles. Kinnunen (2004) deepens our understanding of the nature of the evolution and role of the VC industry, in the post modern economy, by underscoring the importance of the investor – venture capitalist relationship. In particular, Kinnunen provides food for thought on their principal-agent relationship via elaboration on the role of investment councils.

Oskari Juurikkala takes us back to the space between venture and capital by investigating the role of business angels in the process of building business from venture to capital. More precisely, Juurikkala (2006/forthcoming) examines differences in investment strategies and preferences between business angels and venture capitalists. Also Juurikkala leans on the agency theory. According to his findings, business angels – acting as principal operators – are a most promising type of V2C players, at least when compared to parties acting as agents of third parties.

Tommi Rasila and Jussi Okkonen provide an early typology of traditional and emerging V2C business models. Rasila and Okkonen (2002) build on case studies of existing and emerging V2C operations. Their conclusions call for construction of specific V2C operators whose incentives and motivations are fully aligned with those of the (founding) entrepreneurs and venture capitalists. They suggest the use of the venture capital partnership model, as a benchmark, in the breeding of the new type of professional V2C players.

Richard Harrison, Hannu Jungman, and Marko Seppä anchor the concept of V2C to the context of knowledge capital investments. Harrison, Jungman and Seppä (2004) explore the characteristics of knowledge investing and construct a matrix of formal vs. informal and financial capital vs. knowledge capital investors. This work gears the concept of V2C towards knowledge investing and highlights the rise of knowledge investors as active participants (co-principals) in the growth venture process.

Hannu Jungman and Marko Seppä study the differences between V2C investors related to deal flow, key investment decision criteria and perception of risk. The findings of Jungman and Seppä (2004) suggest that the level of knowledge-intensity of the investment activity is an important factor: The more knowledge-intensive the investor (and the investment), the less risk is perceived by the investor, and the less time it takes from him/her to make (investment) decisions.

Finally, Marko Seppä and Hannu Jungman construct an investment vehicle for the making and management of knowledge investments. Seppä and Jungman (2005) share a social innovation by depicting the “knowledge fund” as a structural solution for the professional pooling and orchestration of co-entrepreneur activity. The proposition of Seppä and Jungman is being put to test in the knowledge fund experiment being prepared for launch at the Tampere University of Technology.
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Execution Matters

Execution matters? Searching the Strategy Logic for Growth of Young High-Technology Firms

Jukka Ala-Mutka


INTRODUCTION

The new economy and technology reveal newly emerging businesses which are continually born and must grow fast. The continuous challenge for them is to remain competitive, and keep up with the pace of technology and high growth in the global marketplace. Meeting this challenge successfully is crucial to sustaining growth and for creating greater wealth that requires systematic effort and resources beyond traditional entrepreneurship. Scholars have argued about the keys to the success of young companies or noted that there is no commonly agreed framework or theory for company growth. Thus, frameworks attempting to explain company growth do exist, but they are not mutually compatible or consistent. They do not agree on what variables are related to company growth.

At the start-up stage founders’ skills and abilities are crucial to company growth, as are financial and business resources. After the three first years of operation, there is no difference between the companies started with divergent amounts of initial capital (Doutriaux 1992). In the later stages most firms began to lose their entrepreneurial character, such as rapid response to problems, simplicity of control, and ability to change focus and resources. Many have claimed, however, that initial strategic emphases alone are insufficient to explain later company growth (Moore 1976, Maidique and Hayes 1986) and strategic planning and personal resources become increasingly critical (Churchill 1983, Churchill and Lewis 1983). In addition, there was no relationship between company performance and financial support received at the later stages of company development (Utterback et al. 1983).

Research on growth venturing concentrates on growth strategy (strategy content) e.g. the amount of initial capital or the characteristics of the management team. Although strategic management and entrepreneurship theories have developed largely independently of each other, we would like to suggest that the theory of strategy enhances our understanding of the entrepreneurial process. The perspective of this paper is the concept of strategy logic, which is defined by Näsi et al. (1996) as follows: “... strategy logic of a firm comprehends a set of core elements in harmony or coordination, steering the whole of the firm towards survival and success. Strategy logic is subjective logic representing the thinking of key person(s) in the firm.” Whereas former research of growth has focused on finding a single variable or list of variables to the success, this approach tries to identify patterns of actions or orientation of the firm for company growth.

Several descriptive models describing company growth indicate how organizations, management practices, and resource requirements evolve as companies grow. Most of
the literature related to life cycle suggests that organizations evolve in a consistent and predictable manner or through crises. On the whole, life-cycle stage definitions remain vague and general, making it difficult to apply them to specific cases.

Entrepreneurship is defined in various ways; for example, as the creation of a new enterprise (Low and MacMillan 1988), the process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control (Stevenson, Roberts and Grousbeck 1985), entrepreneurship deals with opportunities for future goods and services (Shane and Venkataraman 2000), entrepreneurship is the creation of new organizations (Gartner 1988) or process whereby an individual or group of individuals acting independently of any association with existing organization and create a new organization (Sharma and Chrisma 1999).

Research framework
Sandberg and Hofer’s (1987) study marked the introduction of a multi-level framework for analyzing the determinants of growth. Most earlier studies had focused on firm-internal factors. The other widely used perspective is the resource dependence research paradigm. The multilevel framework for analyzing determinants of growth is presented in Figure 1. In sum, logic of action is the concept which scrutinizes a firm’s behaviour from the perspective of the outside observer (“realized strategy”). Logic of action is based on the indented strategy and strategy logic of the firm. Thus, three different kinds of research paradigm can be identified. The newest member is now called the “logic-conduct-performance paradigm”. Strategy logic focuses on factors such as strategic content, strategy process, structures, leadership, and strategic game.

![Figure 1 Multilevel framework for analyzing determinants of growth and performance (adapted from Ala-Mutka 2003)](image)

The variables of the external context are in particular industry, markets, economic situation and competition. Firm-internal factors are size of organization, culture, values, stage of life cycle, ownership structure, etc. These factors form the strategy logic of the young venture, which is subjective logic representing the thinking of top management, founders, V2C and other external owners in the venture. A firm’s
strategy is based on these core beliefs and background of the key persons, but the intended strategy is not the realized one. Logic of action describes the real strategy of the firm and therefore directly affects the performance of the firm (Ala-Mutka 2003).

Aim of the paper and empirical data
The aim of this paper is to describe the strategy logic of rapid growth between the initiations of a company and the moment when it has reached a state when it is attractive to the formal venture capital financing industry. This paper analyzes new high-growth ventures from three theoretical points of view: (1) growth models; (2) entrepreneurship in high technology ventures; and (3) strategy logic. The paper studies the strategy logic of growth clarifying (1) the strategy context, (2) the strategy process, and (3) the strategy content in each period of growth. This study combines the researcher’s observations as a former employee of a new high technology venture, which is also partly owned by venture capitalists and external investors, and a survey among high-technology start-ups, and medium-sized high-technology firms in Finland. The survey was conducted in December 2003. The questionnaire was sent via Internet and 46 firms completed the entire questionnaire. The response rate was 14%, which is a satisfactory result in Finland or even good in the international context (Näsi & Aunola 2001). It is to be noted that the responses of seed stage ventures amounted to the responses of only five respondents, which is not surprising. Therefore, results that consider the seed phase can be regarded as indicative, they can, in fact, be analyzed together with those of the start-up stage ventures as the early stages of growth. Thus, the two early stages (Seed, Start-up) can be regarded as early stages and the two latter ones (Growth, Expansion) as later stages in the model of growth venturing.

CONCEPTUAL FOUNDATIONS
Strategy concepts
The actual strategy concept can be approached and interpreted from several points of view. It can be seen as a plan, a ploy, a pattern, a position or a perspective (Mintzberg, 1987). The most dominating viewpoint is to see strategy as a plan and strategy making as a process of planning (Näsi, 1996). The literature related to this approach normally deals with corporate, business and functional levels (Hofer and Schendel, 1978) and nowadays also with network level. Today there are numerous schools of thought and for example Mintzberg et al. (1998) have identified ten (see also e.g. Näsi, 1987, Karlöf, 1987).

Chandler (1962) considered strategy to be "the determination of basic long-term goals and the objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals". For Näsi (1991, 1996), strategy meant “the plot of action of the firm”, whereas Gilbert et al. (1988) considered it to be “logic of action of the firm”. Several other definitions are based on similar elements (e.g. Johnson and Scholes, 1989, Karlöf, 1987, Näsi and Aunola, 2002, 2001), in sum, the plot or the logic of action, the long-term goals of the firm, competitive advantage and the defined time period which could be regarded as the basic elements of strategy. The plot and the logic of action view strategy as a direction or a vision, core competence, cost leadership, a differentiation, an activity system etc. (see e.g. Porter 1980, 1985, 1996, Mintzberg et al. 1998, Näsi, 1996, Hamel and Prahalad, 1994). Another basic element, the competitive advantage, is relative to competitors. As a unique competitive advantage is not sustainable, strategy also tends
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to vary in time and in different contexts. Competitive advantage (e.g. valuable position) will trigger imitation by incumbents (Porter, 1996). Strategy in this paper means the plot or the logic of action of the firm for carrying out long-term goals and for creating competitive advantage.

The framework of strategy concepts consists of norm, humane and logic concepts. The logic concept is defined and connected with other theories of cognitive thinking, a strategist's work, game mastery, business history and core competence (Näsi 1999). The logic concepts are recent ideas exposing the core of strategy. These concepts are called logic concepts because their idea is to expose the rationale of action in a firm (Näsi 1999). Thus, cognitive maps, schemas, paradigms, the Dominant Logic or the Logics of Action are relative concepts, which we can be understood nowadays as logic concepts of strategy. Strategic management, strategic structures, strategic leadership, and strategic game are the subfields of strategic thinking, and strategy logic partly overlaps with the previous four categories, and on the other hand could be seen as a category of its own. This paper focuses on the field of strategy logic.

Originally, in his book “The Structure of Scientific Revolutions” Thomas Kuhn defined the paradigm in 1962. In strategic management theory the paradigm is defined by Johnson (1987) as “a set of beliefs held relatively commonly throughout the organization, taken for granted, but discernible in the stories and explanations of the managers”, and durable and powerful, but tacit assumptions about the business reinforced by success of the organization. In their article Prahalad and Bettis (1986) defined the dominant logic “as the way in which managers [in the firm] conceptualize the business and make critical resource allocations decisions.” Furthermore, they noted that it was stored via shared schemas, cognitive maps or mindsets and was determined by the managers’ previous experiences. The dominant logic forms a sort of information filter filtering relevant data to aid strategy development. The filtered data are then integrated into the strategy, systems, values, expectations, and reinforced behaviour of the organization (Bettis and Prahalad 1995).

Clearly, the definitions of dominant logic and paradigm are quite similar concepts. Both are based more or less on the cognitive psychology - how managers perceive the contextual environment and how they respond to environmental changes. In comparison, Karpik’s (1972, 1978) logic of action looks the same problem from the outside observer viewpoint. Although Karpik mentioned that behaviour based on organization’s culture, values and attitudes, his focus was on the whole range of observable actions. Karpik pointed out that when analyzing a firm’s strategies it is also necessary to study the groups which create them. In addition, the Logic of Action means first of all that it should compare all actions which influence to organization. Karpik also mentioned that the large organization could have several logics of action. The logic of action forms a hierarchy, but it is hard to identify. Furthermore, logics of action are also relative to each other, and only the whole range of behaviour makes it possible to identify them (Karpik, 1972, 1978).

In the concept of logic of action the units of analysis are both powerful individuals and groups. Individuals and groups form the organization’s culture, attitudes and behaviour. Altogether they also specify the organization’s principles of action or in other words Logics of Action, which can be identified by an outside observer by analyzing the whole range of behaviour in the organization. The behaviour is a result
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of internal political struggles defining the dominant logics of action in the firm. The competitive coalitions and powerful individuals have their own preferences and the winning coalition or individual defines the dominant logics of action in the firm (Karpik 1978, 1981).

The strategy realized could be interpreted as a logical outcome of the strategy formulation and the dominant orientation of the firm e.g. logic of action. The concept of logic of action can also be seen as a normative theory. The company’s structure can be based on a customer orientation that forms the leading logic of the firm. The whole set of management practices is built based on markets and customers’ needs. One of the appearances of the logic of action is the Balanced Scorecard, which is balanced according to customer strategy (Ala-Mutka and Talvela 2004)

Stages of growth and strategic management
Dozens of growth models and life cycle definitions have been presented, for example, by Greiner (1972), Galbright (1982), Tyebjee et al. (1983), Scott and Bruce (1987), Churchill and Lewis (1983), Kazanjian and Darzin (1990), Yli-Renko and Autio (1996) and Baird (1999). Five states of growth from a strategic perspective are described in Figure 2.

![Figure 2 Stages of growth from strategy viewpoint (adapted from Ala-Mutka 2002)](image)

Seppä and Näsi (2001) describe a Venture-to-Capital (V2C) model, which is distinguished from an entrepreneur playing solo, where the entrepreneur owns all the shares, and is pushed by venture capital (VC) models (see also Rasila 2004). In the context of growth venturing, it is assumed that a venture grows faster when it has enough managerial knowledge and resources (to cover the entrepreneurial, managerial and knowledge gaps) and capital (due to the financial gap) of its own to do so. All in all, a venture grows even faster if it is also accelerated by V2C models, which operates between the inception of a venture and the moment when it has reached a state which becomes attractive to formal venture capital financing (Rasila 2004). The V2C operatives such as co-entrepreneurs - i.e. professional entrepreneurs filling especially “the knowledge gap” or, as Penrose called it, “the managerial limitations”.
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V2C push new ventures in the direction of formal venture capital and faster growth rate. In the pre start-up state the board is normally internal, including only the founders. In fact, working with the founders also means influence over the company and its strategic decisions.

The new growth model has altogether five stages, namely: i) seed, ii) start-up, iii) chasm, iv) growth and v) expansion. The first two stages involve the early market and the two latter extend to the mainstream market. The interim stage is called the chasm that separates these two markets from each other (see Moore 1995, 1999). Consequently, the chasm separates growing firms in the early stages from those who expand beyond. Similarly, the chasm also separates the formation of internal (organization, processes) and external (market) spheres of action of new venture that succeed and those who do not. The external sphere is initially wide open, but the situation changes after the crossing of the chasm, when the primary goals of a growth venture are already achieved (to be an investable venture). Externally, the venture is committed to certain structures like alliances, partnerships, locations, brands, sales channels, etc. These commitments are connected to risks like a “steep uphill”, which metaphorically describes the rapidly-rising risks of the venture alongside crossing the chasm. The corresponding internal sphere follows a reverse track. In the beginning resources are scarce, the ownership is concentrated and structures non-existent. After the chasm the ownership base is widened and the firm is organized as a mature and organized company.

In the context of growth venturing two major sources of logics of actions can be identified: the market and the customer. Customers distinguish the growth model as ‘early market’ and ‘mainstream market’ (Moore 1995, 1999). Strategy making (in terms of planning, frequency, duration, control, the board of director’s tasks and role as well as ownership structures) is also done according to these markets. Crossing the chasm is in the middle of the transformation in these factors from enterprises that are agile and flexible to effective and profitable enterprises.

Before the chasm strategy making is more or less informal and focuses on the critical points and the boundary conditions. Ventures do not initially need a business model or even a business plan. The venture only needs a viable idea about the new business. Moreover, new ventures seem to need business wisdom and action rather than analyses and plans. The first phase of the growth (the seed stage) could be regarded as the time before the actual firm is founded and the first steps after its establishment. For new firms, strategy at this stage means, first of all, a strategic world view. Next, at the start-up stage, the firm has to set boundaries. At this point, the pure ‘world view’ no longer works and a more structured strategy is needed. The new venture begins setting boundaries around the business idea. At the same time the total risk level increases. The company has to take into account not only technological risks but also financial risks and risks associated with partnerships and alliances. In strategy terms, this state can be called ‘strategy as boundaries’. Boundaries can be understood as “simple rules” as proposed by Eisenhardt and Sull (2001).

The first two states emerge during the “early market”, but the whole game will change during the third stage after crossing the chasm. According to Moore (1995, 1999), securing the early majority (size of the customer group is 34% of the potential market by now) customers is then the key to any substantial profits and rapid growth due to
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penetration into the mainstream market. In the early market the innovators (2.5%) and early adopters (13.5%) have a tendency to focus on the products’ newness and discontinuity rather than on essential benefits. Paradoxically, the early majority wants to buy productivity improvement for existing operations and seeks to minimize the discontinuity with the old ways. The early majority wants to see well-established references before investing substantially. The key point here is that customers in the mainstream market truly dislike discontinuous innovations (Moore 1995, 1999). Thus, business operations and strategy are forced to become more structured in order to offer standardized business processes. This is the state when formulating strategy takes center stage and it is, therefore, called “strategy as business model” (during the chasm and growth stages). After a short but rapid growth period, the new venture is actually no longer new or small. More people are involved in strategy making, forcing structures to become more formal, standardizing the communication between people and units to ensure adequate implementation through well-thought out processes. Thus, the last state of the new venture development can be called “strategy as process”. Thus, during the development, strategy formation enhances different styles of strategic thinking at each stage.

STATISTICAL ANALYSIS
The statistical analysis based on the Bayesian modelling, which is a high-level representation of a probability distribution over a set of variables. In order to be able to apply this theoretically elegant approach in practice, the set of possible models has to be constrained by some basic assumptions on the problem domain. The problem domains are: (1) internal and external strategy context including periods’ characteristics (states) of development and ownership structure; (2) strategy process (analysis, decision, implementation and control); (3) strategy content; and (4) firm’s performance and growth. The Bayesian network model is constructed by explicitly determining all the direct dependencies between the independent variables of the problem domain. In a Bayesian network each node represents one of the observable features of the problem domain, and the arcs between the nodes represent the direct dependencies between the corresponding variables.

Definition of performance in the survey
Growth is by no means a widely accepted success variable. Of course, the business goals of many small business owner-managers are determined by personal lifestyle or family factors, not by growth. (Curran 1986, Stanworth & Curran 1986). There are also many other measures of performance: profit, ROA, ROI, increase of customers, increase of employees, etc. Sales growth has been the most typical measure for young technology-based companies (Salonen 1995). On the whole, economic measures, however, really answer other questions. During the first couple of years young ventures show two or three digit growth rates, but this does not actually describe the real success of the firm especially when looking at the success in the strategy setting, which looks for qualitative development of venture, too. The growth of an organization can also be considered to be its development and improvement in the quality of its operations (Penrose 1995). Thus, organization growth can be quantitative and qualitative (Laukkanen 2000).

In the Worldview stage firms are in the pre-start-up phase, where firms do not form an organization, products are mainly prototypes, business processes are unclear, the financial situation is not stable and the future in general looks quite open and markets.
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unlimited. How can we measure the success of such companies? In the study the success of the firm is not only defined by quantitative measures, because the performance variables differ by the stage of life cycle. Variables also contain an evaluation of the firm’s success in finance, publicity, technology, knowledge, profitability, business processes, and customers and markets.

In the study the success is defined by eleven quantitative and qualitative measures:

1. Turnover (annual growth rate)
2. Number of personnel (annual growth rate)
3. Organic growth
4. Non-organic growth
5. Profitability
6. Planned goals
7. Knowledge and technology
8. Publicity
9. Finance
10. Customers and markets
11. Business processes and concepts

The quantitative growth measures at each stage are turnover and number of personnel. Economic measures are insufficient to describe the success of firms in the early stages. Growth and other performance measures are listed in Table 1.

**Table 1 Defining performance and success metrics of growth venturing**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-start-up</th>
<th>Start-up</th>
<th>Growth</th>
<th>Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Turnover (annual growth rate)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2. Number of personnel (annual growth rate)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3. Organic growth</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>4. Non-organic growth</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5. Profitability</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>6. Planned goals</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>7. Knowledge and technology</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Publicity (brand recognition)</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>9. Finance</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>10. Customers and markets</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>11. Business processes and concepts</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

INTRODUCTION TO THE SURVEY

The questionnaire was sent via Internet and a total of 46 firms completed the full questionnaire via Internet. The response rate was 14%. This is quite a satisfactory result in Finland (Näsi and Aunola 2001). Usually questionnaires are sent via ordinary mail and response rates are typically between 10% and 20%. Table 2 presents how 46 responses were divided into different phases in lifecycle. In the pre-start-up phase there are only five responses, which is no surprise. It is hard to find companies that are only one or two years old or those that have just been founded. All in all, there are 17 ventures at an early phase of the life cycle, 20 ventures in the growth phase and

---

1 Each measure is evaluated on a scale from 1 to 5.
nine in the expansion phase. The target group in the study was growth oriented technology-based firms, which are VC backed, located in technology centre or already listed on the Helsinki Stock Exchange. Over 650 companies were evaluated and 335 met the selection criteria.

Table 2 Number of answers and average and median year of foundation

<table>
<thead>
<tr>
<th></th>
<th>Answers</th>
<th>Foundation year</th>
<th>Median Foundation year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Start-up</td>
<td>5</td>
<td>1998</td>
<td>1999</td>
</tr>
<tr>
<td>Start-up</td>
<td>12</td>
<td>2001</td>
<td>2001</td>
</tr>
<tr>
<td>Growth</td>
<td>20</td>
<td>1996</td>
<td>1999</td>
</tr>
<tr>
<td>Expansion</td>
<td>9</td>
<td>1986</td>
<td>1988</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The whole questionnaire contains 74 variables divided into three main categories, strategy content, process and context. Groups of variables are goals, products, customers, cooperation, critical success factors, business development, strategy process, strategy (topics), control and external and internal context. Each variable is defined with help of my experience as a management consultant and described in the growth model. The underlying foundation of the study is the division of strategic management into three parts according to Pettigrew (1985).

The idea of the study was explain the total model of the data with help of Bayesian modelling. The study contains a total of 74 variables, which is too many with 46 answers. Therefore the total model is divided into eleven groups of variables. Each group contains a maximum of 12 variables, growth variables (turnover and personnel) and success measures. The biggest model contains altogether 15 variables. Thus, in each model there are three times more responses than variables. In this analysis one single variable is not important. The focus is on the groups of variables and the overall presentation of the data.

RESULTS

Results of the analysis of the presentation of the whole data are presented in table 3.

Table 3 Summary of the analysis of data by Bayesian modelling

<table>
<thead>
<tr>
<th>Dimensions of strategy</th>
<th>Group of variables</th>
<th>Correlation with life cycle</th>
<th>Correlation with success</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy Content</strong></td>
<td>Goals</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Products</td>
<td>Yes (std. deviation increase)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Customers</td>
<td>Yes (std. deviation increase)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Cooperation</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Critical success factors</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Business development (actions)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Strategy Process</strong></td>
<td>Planning (duration, frequency, extensiveness)</td>
<td>Partly</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Approaches and analyses</td>
<td>Partly</td>
<td>Yes</td>
</tr>
</tbody>
</table>
DISCUSSION AND CONCLUSIONS

The main research question was: Does the success of new companies depend more on the execution of the strategy (process, implementation) than on the intended strategy (content)? The focus of the study is on logic of actions during growth. The survey of 46 high-technology firms in Finland suggests that the success of the firm depends more on the formulation (strategy process) and execution of the strategy than on intended strategy (content). Thus, there is no “secret formula” as an initial strategy for company growth in early phases that lasts throughout the lifecycle; it is matter of changing logic of action.

First of all, the task of entrepreneurship is the creation of new business, organization or even economy, whereas growth venturing is to run the small business into a big business. Growth venturing is like project business. To commercialize an innovation, a venture is needed in the process. Young high-technology firms are generally

<table>
<thead>
<tr>
<th>Strategy Context</th>
<th>Control (measurements)</th>
<th>Incremental (average)</th>
<th>Financial and customer measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>External (markets, technology, competition and customer needs)</td>
<td>External (markets, technology, competition and customer needs)</td>
<td>Partly</td>
<td>Partly, not significant</td>
</tr>
<tr>
<td>Internal (external actors’ influence)</td>
<td>Internal (external actors’ influence)</td>
<td>Yes</td>
<td>Partly, not significant</td>
</tr>
</tbody>
</table>

Strategy content correlates mainly with the stage of the lifecycle. The data does not reveal any evidence to suggest that there is a “secret formula” as an initial strategy of growth venturing. One of the interesting details is that the level of cooperation does not correlate with lifecycle nor with success. There is an approximately equal number of successful ventures with or without very broad cooperation. It seems that goals, critical success factors and business development change during the life cycle. These variables do not remain constant between the stages of the lifecycle. The analysis suggests that the level of management practices correlates with success and also with the growth model. Ventures which are more systematic and analytical are also more successful. In addition, those ventures which also have a broader measurement system (especially financial and customer measures), are more successful.

The external context is defined by five variables (markets today, market development in 2-4 years, competition today, technology uncertainty, changes in customer needs in 1-2 years). The most successful companies anticipate the average level of competition, more technological uncertainty and quite unfavourable market development in the near future than those ventures which are not so successful. The internal context is defined by the stage of the lifecycle and the external context by the actor’s influence over the development of the venture.

Different external actors influence venture growth at various stages of the growth model. Business angels, advisors and incubators influence the seed and start-up phases whereas incubators mainly influence the start-up phase and the venture capitalists the growth phase. Only those incubators specialized in growth venturing correlate with success. However, their influence is rated quite low. It could be argued, however, that those ventures which are already successful involve such actors.
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controlled by active entrepreneurial characters who react quickly to derive benefit from new and innovative opportunities. Large firms, quite the opposite, often possess a management structure that stifles entrepreneurial effort (Rothwell and Zegveld 1982). Of course, it is no idea to adopt management practices directly from big companies to small entrepreneurial firms. Although there is sort of chaos in the daily management of the growth of the new venture, still we can observe the development of a new venture from the strategic management viewpoint. In the long run, according to the results of this study, the most successful ventures are those which plan and also measure their business performance.

If entrepreneurship is concentrated on the creation of a new organization, then Professional Entrepreneurship deals with growth venturing. Gradually the entrepreneurial firm loses its entrepreneurial characteristics through realized commitments e.g. size of organization or network, connected alliances, preferred technological standards, etc. This need not mean that ventures are totally losing their entrepreneurial spirit; instead they have to change their action code. Figure 3 illustrates the transformation from entrepreneurship to the strategic management of growth venturing. A question for future research is whether Professional Entrepreneurship can be understood as a professional management activity and whether it can also be distinguished from way-of-life type of entrepreneurship?

**Professional Entrepreneurship**

![Figure 3 Transformation between entrepreneurship and strategic management of growth venturing]

**REFERENCES**


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Playing with the Goose

Playing with the Goose: Pushing Entrepreneurs Across the Capital Gap – Who, Why, and How?

Marko Seppä and Juha Näsi

This paper was presented at the IntEnt Conference in Kruger National Park, South Africa, 2–4 July, 2001, and originally published in the IntEnt 2001 Conference Proceedings.

INTRODUCTION

This study is about understanding the bridging of ventures and capital – the players and strategies related to pushing entrepreneurs across the capital gap. In today’s world, entrepreneurs enjoy quite a unanimous appreciation and recognition as the geese who lay the golden eggs for societies at large by turning market opportunities and their personal drive into new exports and jobs. This study investigates who are “playing with the geese,” why, and how.

To be sure, this study is focused on economic actors that in many ways resemble venture capital companies. The study also utilises the framework of venture capitalist strategy logic created by Seppä (2000) as the primary theoretical tool. However, whereas venture capital firms concentrate in pushing “investable” ventures “listable”, this paper studies those who concentrate in pushing “prospective” ventures “investable” in the eyes of the venture capital industry.

In this study, a venture is referred to as:
(i) listable when qualifies for public listing on a stock exchange or as a trade sale target,
(ii) investable when not yet listable but qualifies for investment by the formal venture capital industry, and
(iii) prospective when not yet investable but qualifies for an organised growth effort either by an entrepreneurial or a corporate actor.

To conceptually differentiate between venture capital (VC) players, those who push investable ventures listable, and those players who push prospective ventures investable, the latter group is referred to as venture-to-capital or V2C players, in this research.

Besides the V2C players themselves – their person, mission, and strategy – the study is interested in the demand for their services at both ends of the capital gap. The study is interested in the views of prospective ventures on the status of capital supply, and in the views of VC firms on the status of venture supply. Empirically, the study draws from a survey exercise conducted in Finland, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the UK, during spring 2001. The exercise comprised of a venture survey and a capital survey. This paper derives insight only from the former, however.

The surveys were conducted under the EU commissioned E-forum project, a pilot project under the eContent Program of the European Commission. E-forum is a
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project between eight partners: Tampere Technology Centre (project leader) and Otaniemi Science Park (both from Finland), Heletel/Tessaloniki Technology Park (Greece), Centre de Recherche Public Henri Tudor (Luxembourg), Zernike Group (the Netherlands), Cpin/Centro Promotor de Inovacao e negocios (Portugal), Info/Regional Development Agency of Murcia, and Njm European/Economic and Management Consultants (United Kingdom). E-forum seeks for ways and forms to utilise ICT to improve the matching of ventures and capital.¹


CAPITAL GAP

The capital gap problem was discovered already 70 years ago, documented in a government study in the UK in 1931 (Dominguez 1974). In the language of this study, capital gap – the gap between venture and capital (originally referred to as the Macmillan gap) – relates to the “distance” between a prospective venture and an investable venture. In effect, the size of the V2C market is the delta between what can already be funded by the formal capital market and what can still be funded by the informal capital market. The capital gap is typically the wider – and the V2C market the bigger – the smaller, the younger, and the more innovative the underlying prospective ventures are. In the latter part of the past century, the VC industry was looked at as the solution to the capital gap problem. Consequently, since the 1950s and the 1960s, governments in America and Europe have taken active measures to increase the quantity of VC in their underlying economies. (Seppä 2000)

And quantity there is, in today’s world of VC, but – interestingly enough – also an ever-wider capital gap. Due to the transformation of the classic concept of the VC process into VC spiral, venture capitalists increasingly suffer from “physical inability” to make small investments.² Two years ago, the capital gap dilemma was addressed in Silicon Valley by the Santa Clara University 1999 summit: Financing New Ventures – Gaps and Gateways. It was concluded that, in our times, entrepreneurs seeking for less than $5 million in early-stage funding may be faced with the capital gap problem. Less than 15 years ago, the average investment by a National Venture Capital Association member company was $865,000 (Maier and Walker 1987).

The VC spiral, resulting in growth of size of the average VC fund raised by a successful venture capitalist and a consequent growth of the minimum investment amount (as depicted by Seppä 2000), is illustrated in graph 1 below.
What adds irony to the capital gap problem in our time, is that while an unforeseen amount of capital is seeking for ventures to finance, also an unforeseen number of ventures is seeking for capital backing. Thanks to the wheel of history, the victoriously spreading entrepreneurial ideals, and the knowledge intense, rather than capital intense opportunities of the e-economy, the market is again ripe for such classic (small) investments that created many of the VC industry’s greatest legends. The irony is that now that there is no shortage of capital, there is a shortage of small-enough doses of it.

In their landmark book, *Venture capital at the crossroads*, Bygrave and Timmons (1992) ask with concern: "Where is the venture in venture capital?" Seppä (2000) rephrases the question and asks: “Where is the capitalist in venture capital?” The present study continues the quest for the capitalist in what is referred to as the V2C setting. On a grander scale, the study follows the path opened by Tyebjee and Bruno (1981, 1984). For an early Finnish contribution see Miettinen and Relander (1988). Throughout the 20 years of organised research activity on the VC phenomenon, the least attention has been placed on the identity, motivation, and structure of the ones who make it happen. This paper joins the likes of Amit, Glosten, and Muller (1990), Amit, Brander, and Zott (1998), and Seppä (2000) in the emerging stream of research addressing the core strategic issues of the venture capital industry. Zacharakis and Meyer (1998) put the motto of this line of study in words: "Any improvement in [venture capitalists’] understanding [of their own decision process] (which ultimately leads to improved decision-making) can have a huge economic impact for both the venture capitalist community and their funded ventures."

The mission of this study is to contribute to understanding of the V2C phenomenon at each key stakeholder group. Besides the owners and managers of the V2C players, if not one and same person, also their financiers and target entrepreneurs, as well as the
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buyers of their portfolio interests, and government policy makers, make decisions that shape their business environment. Empirically, this study investigates the demand for V2C services at both ends of the capital gap. First, before addressing the mismatch between the two, venture supply will be addressed.

VENTURE SUPPLY
From the capital provider’s point of view, venture supply can be divided into three main sources as follows:
- entrepreneurial start-ups
- management buy-outs and buy-ins
- corporate venturing

Entrepreneurial start-ups deal with giving birth to new legal persons, a reproduction process that could be referred to as the lifeline of the market economy. To an extent, the well-being and survival of also legal persons depends upon reproduction. But as is the case with natural persons, reproduction is no end in itself. Without love, care, discipline, and moral building, the odds of well-being and survival of a child are not increased. At young age, the role of committed parents is central to natural persons. Institutionalised children are, as sad as it is, less likely to become contributing citizens. Unfortunately, the analogy seems to hold for legal persons as well.

Parents, it could be postulated, are the owners of their children until adults. But sadly, as we know, this ownership in itself is no guarantee of responsibility and commitment – which is also pointing to the need for institutionalised parenthood. The same applies to new venturing. If the ”best element” lacks incentive to become entrepreneurs, in a society, and rather choose a career in a large institution, institutionalised new venturing is readily justified, in analogy. This is not suggesting that institutionalisation is ever the optimum, however.

MBOs and MBIs relate to entrepreneurial teams’ acquisitions of existing and established businesses. These are typically professional-management-driven transactions of going concerns and hence less of a challenge to evaluate, finance, and monitor than entrepreneurial start-ups to a potential capital providers.

Corporate venturing brings about new business by building on internal entrepreneurship, sometimes referred to as intrapreneurship. In environments and societies that lack entrepreneurial incentive, large corporations are natural platforms for new venture activity. Conversely, in environments boasting with entrepreneurial incentive, corporations have tougher time keeping new venture activity indoors. Compared with America, Europe relies much more on corporate venturing. As a form of ”institutionalised parenthood,” corporations have a significantly better track record as a platform for new venture activity than state or government related entities – although there are exceptions also to this rule. Nevertheless, the difference between the two is likely to be a function of incentives and responsibility.

It is evident that the capital gap problem relates to entrepreneurial start-ups and the parenting of prospective ventures. By definition, buyouts and buyins are more likely to be readily investable in the eyes of VC firms. Corporate ventures have internal
capital provision. Summa summarum, regarding venture supply, this paper is focus on entrepreneurial start-ups. 

The Venture Survey
During spring 2001, ventures labelled as “digital content companies” were surveyed in eight EU member countries. The definition used for a digital content company was broad. Companies having “activities of creation or distribution in the domain of digital content based on education, news and information, leisure and entertainment, or e-business” did qualify for the survey. They could be anything from a start-up to a going concern, as long as they judged themselves to be, in the language of this paper, either a prospective or an investable venture.

By June 15, altogether 61 such firms from Finland, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the UK had responded to the survey. Hence, what will follow are some early observations on a fairly small, but nonetheless intriguing sample. Namely, most of the responses are derived from young, entrepreneurial companies somehow associated with science parks or technology centres. Of the respondent ventures as many as 40% were founded during the past 18 months. Consequently, 56% of them reported to have five or less employees, and 47% EUR 200.000 or less in annual sales.

In terms of business model, 41% felt comfortable reporting B2B as their dominant business model, 22% reported B2C, 25% a combination of the two, and only 12% other model. A striking 45% reported to have identified over ten competitors, 31% 5-10, and 24% less than five competitors. Regardless of an evidently competitive environment, 38% of the respondents estimated to outperform their competition in pace of development. Only 13% estimated being outperformed by the competition. The respondents represented early stage also regarding capital raising. As many as 39% have no outside funding and another 37% have received first stage funding; while only 24% are at later rounds. Most interestingly, as many as every fifth respondent reports to decline altogether from raising outside capital.

Reviewing the respondent comments regarding capital provision the following type comments seemed to emerge as a trend:
- “Real risk capital does not exist, capital providers always ensure their own investment.”
- “Entrepreneurs invest everything in a venture, capital providers only invest capital.”
- “Entrepreneurs put it all in one venture; to capital providers it is just a dime in a dozen.”

When judging for their nature as digital content companies, vis-à-vis technology-based ones, the respondents the following type comments seemed to emerge as a trend:
- “Capital providers prefer to finance technology, rather than e-business concepts.”
- “The dot.com bomb has cast a shadow over new economy based businesses.”
- “It is truly difficult to assess earning logic herein, and pick winners from a crowd.”

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When asked to list their biggest concerns when creating their company, only 23% of the respondents pointed merely at a shortage of capital, whereas 31% picked only knowledge related concerns, such as administrative and managerial competence, and access to specific relationship networks and skilled workforce. The remaining 46% pointed at a mix of capital and knowledge related concerns. Of the respondent firms, 52% reported the source of their start-up capital as entrepreneurs, associates, family, and friends, 11% reported friendly money plus public agencies and/or business angels, 27% friendly money plus venture capitalists and/or banks, and 11% reported fully corporate sources.

All in all, the respondents agreed that access to specific relationship networks helps finding capital providers. Only 10% disagreed. They based their judgment on the following rationale:
- “Networks help getting information on financiers and on how to develop business idea.”
- “Networks are the way to find expertise, exchange ideas, and get the right contacts.”
- “Network membership creates synergy effects and adds credibility.”

A common thread within answers regarding networking was, however, insecurity. Apparently (young) digital content companies feel uncertain about their networking ability: Which networks to choose and how to join them. Of the respondents 33% indicated they had received help in building their business plan, 27% indicated they had not received any help, and 40% that they had not needed any help therein. Of those who had received help in business planning, 30% reported help from would-be financiers, 45% from a public agency, incubator program, grant, or award, and 25% from a consultant or a private agency.

Although a majority or 57% of the respondents rated their national state of mind as favourable towards entrepreneurship, an alarming 43% rated it unfavourable. When asked whether or not the venture capital sector was well developed in their underlying economies, only 33% of the respondents gave a positive evaluation. A staggering two thirds gave it a negative evaluation.

CAPITAL SUPPLY

From the point of view of an entrepreneurial venture, capital supply can be divided into three main sources as follows:
- equity
- debt
- grants

Each source is important to any venture. However, depending upon the development stage, innovativeness, and technology content of a given venture, there are differences in their relative weight. Debt is primarily available only to more established companies that have collateral. Grants, on the other hand, are primarily available only to the most technology-intense firms, and only in economies where governments have – besides the resources – such a technology policy.
By content, both debt and grants are financing in its most basic form – money. With regard to young companies and to firms of high technology content, money is enough, in today’s world, only if a venture has lined up exceptional managerial talent and networks or if they exist to only serve one major client. To most ventures, particularly so to firms seeking rapid growth into world markets as independent entities, equity contains the keys to success. This is where the true incentive – the rationale behind all private enterprising – is baked-in. In fact, whereas debt and grants relate to mere financing, with a price tag, equity rather relates to ownership (being a “parent”). This is why this paper is concentrated on equity supply.

**Equity supply**

From the point of view of an entrepreneurial venture, the equity supply can be divided into three main sources as follows:

- entrepreneurs themselves, their family, and team members (friendly money)
- business angels and venture capitalists (private equity players)
- stock market investors (public equity players)

In the ideal environment, the entrepreneur has all incentive – both financial and social – to invest 100% of his/her capacity to maximally rapid and efficient build-up of the underlying venture. The importance of the financial incentive is easy to demonstrate; one just needs to refer to the option schemes of large corporations, whereby internal entrepreneurship is encouraged in market economies world-over. With regard to the social incentive, large corporations in Europe are vested with much more social incentive, than efforts to start up on one’s own, when compared with America. Historically, self-made-men enjoy by far greater social appreciation in America than in the “aristocratic” cultures of Europe, where social status has been traditionally either inherited or achieved via loyal service to the crown or a major institution, such as the church.

Besides the ‘relative’ advantage – a better social incentive environment – entrepreneurs also have an ‘absolute’ advantage in America: More friendly-money available for start-ups. There is typically no need to go outside family and friends for the first round of financing; no need to ”reveal one’s soul to the public at infancy.” In Europe, entrepreneurs are forced to gross the line and seek for private equity financing at a much earlier stage. And, in the earliest stages, public-sector-based players are about the only private equity players that are around – in most markets.

Public quotation – access to the public capital market – could be said to symbolise the New Economy. One needs to have the resources available for quick moves to facilitate growth which often involves M&A transactions. And one needs the same to attract and keep top management and employees. Publicly traded stock serves both challenges; it is the vehicle (i) to raise capital from the stock market, (ii) to merge with or acquire other companies, (iii) to build personnel incentive schemes, and (iv) to keep the management focused on core competence. In the “Old Economy,” it was not unheard of that a venture was walked from idea to IPO without private equity money. Figure 1 illustrates the “lonely walk” of a prospective venture to IPO.
Playing with the Goose

OWNERSHIP

Entrepreneur Stock market

100%

0%

prospective (investable) listable

"in 30 years"

Figure 2 Playing solo – the lonely walk of a prospective venture to an IPO

In the New Economy, very few companies can build an access to the public capital market, i.e., reach a public quotation, without private equity finance – at least quickly enough. Private equity finance provides a “fast lane” to IPO. And, besides financing, private equity financiers often bring years or combined experience of building businesses to the equation. However, some of them have a better incentive and thereby willingness, along with a better ability, to use that experience than others. It is also worth noting that, carried across time, such an incentive is likely to exponentially increase both the willingness and the ability to be of contribution.

Figure 2 presents the fast lane of an investable venture to the IPO.

OWNERSHIP

Entrepreneur VC Stock market

100%

0%

prospective investable listable

"in 3 years" "in 10 years"

Figure 3 Pushed by VC – the fast lane of an investable venture to the IPO

Also, should a public company fail to meet its full potential or should there be any severe agency problems – this becoming evident from declining share prices (relative to industry average) – it is again the private equity players that take action. Without such watchdogs of mature companies, and without such financiers of entrepreneurial start-ups, economies are likely to severely deteriorate as demonstrated by economic experiments in Eastern Europe in the latter part of the 20th century. This is why this paper is focused on VC finance or, to be precise, V2C finance.
Playing with the Goose

V2C supply
The players that operate between entrepreneurial ventures and the formal venture capital industry, in efforts to bridge the capital gap, can be categorised as follows
- business angels
- incubators
- advisers

Business angels are, by definition, wealthy individuals putting some of their hard-earned capital, business-experience, and contact-networks back to the entrepreneurial process. They are profit-driven, market-educated players vested with an extensive value-adding potential. However, they are, by definition, also hobbyists. This is neither their profession nor full time job. Even if this is their main job, post-retirement, it does not necessarily fill the hours of their days. Importantly, they are not dependent on any market forces to maintain a long-term in what they are doing; they do not need to serve any particular stakeholder group such as outside investors, or even the entrepreneurs. They do not seek organised growth of their business as do – for example – the players of the formal venture capital industry. In other words, they lack certain dynamism.

The same holds for many incubators, but from a different angle. Most incubators are based on a formal process and professional activity; this is someone’s main job – not a mere hobby. However, whereas business angels personally participate as owners in underlying ventures, incubator staff seldom has such personal incentive. Many incubators are public sector based or semi-public players under the public eye with little or no space for making mistakes. In other words, their activity lacks different aspects of dynamism when compared with business angels.

Compared with business angels and incubators, advisers are the most focused on their own short term gains and profitability. By definition, they are also involved for the shortest time with a given venture. On the negative side, a standard image of an adviser relates to quick-and-dirty, get-the-money-and-run type operation. Advisers are often faced with accusations according to which they do not care what happens in the client firms once they finished. On the more positive tone, advisers are highly skilled and motivated professionals who have seen many cases and can derive advice from experience. Also, advisers certainly work under market pressure, under pressure of profitability. This is neither a hobby for them, nor are they around to fulfil (soft) economic-policy-related missions.

CONCLUDING DISCUSSION: THE WHO, WHY, AND HOW OF V2C
“Every enterprise needs a concept of its industry. There is a logical way of doing business in accordance with the facts and circumstances of an industry, if you can figure it out. If there are different concepts among the enterprises involved, these concepts are likely to express competitive forces in their most vigorous and most decisive forms.” Alfred Sloan (Robert 1988: 20).

Both the capital gap and the capital heaven are good news to all of the above mentioned V2C players – business angels, incubators, and advisers. Capital gap means business for each of them. However, each player type seeks to utilise the capital gap in a different way, the implications of which have very differing
consequences to the other stakeholders of the phenomenon, namely the venturers, the capitalists, and the society at large. Nonetheless, the width of the capital gap calls for efforts to create a new professional player. Figure 3 provides an illustration of the space for V2C to fulfil in the process of accelerating ventures from idea to IPO.

OWNERSHIP

Figure 4 Accelerated by V2C – the fast lane of a prospective venture to the IPO

The Venture Survey Re-Visited

In four countries, the Venture Survey asked questions directly related to V2C services. This section produced altogether 21 responses from Finland, Luxembourg, the Netherlands, and Portugal. As many as 62% of those who responded reported they had considered raising “knowledge investment” – not mere capital investment. All of the Finnish respondents, none of the Luxembourg ones, one third of the Portuguese, and 40% of the Dutch respondents reported having considered raising “knowledge investment.”

The list of knowledge investors or “knowledgists” (as opposed to capital investors or capitalists) included six referrals to fellow-entrepreneurs, four to incubators, two to advisers, and one to executives of large firms, corporate financiers, researchers, and R&D teams each. This being an unorthodox concept and unorganized activity to begin with, it is no wonder many of the respondents addressed open questions with comments such as: ”We do not know how to get this kind of support, how to find those who provide it.” The ones who had successfully raised “knowledge investment” from fellow-entrepreneurs argued that such knowledgists:

(i) “invest brains and experience, the value of which are hard to evaluate in dollar terms,”
(ii) ”money means less than knowledge on how to spend it,” and
(iii) “the networks opened shape a firm’s future more than mere dollars on the balance sheet.”

When asked whether or not they would welcome a significant increase in the supply of V2C services, a compelling 71% of those who responded answered yes. Again, all of the Finnish respondents answered yes, while a half of the Luxembourg, a third of the Portuguese, and a half of the Dutch answered similarly. When asked whether they would be willing to search for V2C services via the internet, the respondents were split into two halves. Ten respondents answered positively and another ten negatively there being no significant variation between countries. The trend that strongly
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emerged through the open-end questions was a preference for personal contact with regard to attracting knowledgists. While (monetary) capital has no personality, knowledge comes “attached to such a thing.”

Perhaps the Internet could be utilised to create a platform and tool for professional knowledgists to attract part-time knowledgists for syndicated V2C deals and, eventually, capitalists for VC deals. Rephrasing Fried and Hisrich (1994): "Finally, one must ask: ‘How do the benefits that V2C players provide as intermediaries compare to the costs’. While we show that the role of an intermediary is valuable, the [V2C] style of investing has high costs… More empirical work will be needed to explore in what situations V2C costs are justified.”

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1 On June 11, 2001, E-forum became signed as the first research project of the Tampere University of Technology and University of Tampere joint e-Business Research Center (eBRC). This paper hence, in more than one way, continues earlier work by FVC Institute and Tampere University of Technology (1994).

2 For a seminal exposition of the management process of a venture capital firm, see Tyebjee and Bruno (1981).

3 In 1957, American Research & Development Corporation (ARD) invested $70,000 in a new venture started by four MIT students, launching Digital Equipment Corporation, valued, by 1971, at $355 million. In 1975, Arthur Rock invested $1.5 million in a start-up that launched Apple Computer, Inc.; an investment that was valued at $100 million at the company’s initial public offering (IPO) in 1978. (Bygrave and Timmons 1992.)

4 As noted by Elango, Fried, Hisrich, and Polonchek (1995), the issue has become raised of how to define venture capital. Whereas Bygrave and Timmons (1992) find the differences between early-stage and late-stage investing so great that investors focusing on the latter should not be considered venture capitalists. This study points attention to how we should address the players operating “before” the formal venture capital community.

5 As pointed out by Sexton (1986), entrepreneurial firms – defined as growth-oriented firms – play an important role in the economic development of an area. Not all firms play such role. Interestingly, Jarillo (1989) emphasises the ability and willingness to use external resources as the essence of entrepreneurship.
Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

Harri Kinnunen


OBJECTIVE OF THIS STUDY

The history of the venture capital industry is relatively short in Finland and there are many areas of research that need more attention. There are a number of studies about venture capitalists’ decision criteria concerning their target companies (see, for example, Seppä 2000), but relatively little attention has been placed on institutional investors’ decision criteria concerning the venture capital funds they invest in.

Institutions such as pension funds and insurance companies play an important role in venture capital fundraising in Finland. There are studies based on empirical findings in other countries dealing with institutional investors’ decision criteria. One of the objectives of this study is to find out if these studies and theories are valid in Finland or if there are some specifically Finnish features affecting fundraising. One interesting characteristic of the Finnish venture capital industry is the strong position of the investment councils composed of representatives of limited partner investors. Chapter ‘Covenants vs. a strong investment council’ deals with this issue to some extent.

The two main questions in this study are, 1) why do (Finnish) institutional investors invest in VC funds, and 2) how these investors choose between different VC funds. Principal-agency theory provides the main theoretical framework for the study. Section ‘Principal-agency theory’ is strongly based on Schleifer (2000). He introduced different situations where decision making power and resources are separated by agency relationship.

Contracts between VCs and investors are referred to as Limited Partnership Contracts, in which context an investor is a limited partner. Nevertheless, the investor has some powers to restrict the VC’s or the General Partner’s actions. In Finland investment councils are set up to represent investors in decision making, which is to some extent contradictory to the original spirit of limited partnership contracts. The strong position of investment councils is more or less a Finnish phenomenon. In many other countries such contracts include more covenants, which serve the same purpose as the investment council; to make sure that the investor’s benefit is the first priority. In the chapter ‘Covenants vs. a strong investment council’ I will compare those different practises and I will also share observations on what respondents think about the strong position of the investment council and whether there have been changes in the contracting culture in the Finnish venture capital history according to the respondents. This chapter continues with the principal-agency theory to which an important theoretical addition is Gompers and Lerner (1996b) which handles the commonness of the covenants in the venture capital contracts.
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In the chapter ‘Why invest in venture capital funds?’, I will focus more on the first main problem of this study: why the institutional investor actually invests in VC funds? This chapter is highly focused on the concept of risk and expected returns. Diversification is very important when an investor is dealing with large portfolios. But portfolio theories are not as easy to use when we talk about venture capital investments. Still in last few years there have been a growing number of studies covering this issue. Cochrane (2001) researched this area and emphasized the individual venture capital investment perspective. Baierl, Chen & Caplan (2002) studied the same subject and tried to investigate the correlation between venture capital investments and large capitalization stocks. Born (2004) approached this subject from a different view, studying funds’ risk profiles. Also Manyem (2002) and Barry (1998) have explored this area. I present these studies and interpret my observations from the interviews; how well these former studies and their results are supported when institutional investors make investment decisions. Or more clearly, does the possible diversification-effect matter in investment decisions?

Chapter ‘Criteria for choosing a venture capital fund’ continues with the concept of principal-agency theory, which was already presented in the earlier chapters. In that chapter I will concentrate on the second main problem of this study: how an institutional investor makes a selection between VC funds? Former chapter explained that investors can not focus on the future expected rates of returns when they evaluate venture capital firms’ capability to invest their funds, because they do not have same kind of special knowledge as venture capital firms. That is the reason why an agent’s (a VC’s) past performance is the most important factor when the principal (an institutional investor) is making his investment decisions. Earlier chapters present principal agency framework in general and in this chapter I will focus more on that phenomenon at the fund’s level. Former studies usually employ principal-agency framework in studies handling mutual funds. In many of those studies, former track record has been indicated to be the most affecting factor in fundraising. For example Sirri & Tufano (1998) and Goriaev, Nijman & Werker (2003) and Hong, Huang & Kelsey (2004) have researched that issue. I will introduce those studies in more detail and I will also present the respondents’ answers and analyse how well these former studies match with those answers.

BACKGROUND

Venture capital in Finland

Finland’s venture capital history is relatively short and the Finnish venture capital industry has changed greatly in the past decade. In 1992 venture capitalists raised €14 million of new funds. Ten years later they raised €657 million with institutional investors playing a much more significant role than in the early 1990’s.

In 2002 71% of all new funds were raised from institutional investors like pension funds and insurance companies, amounting to a total of €457 million. There have been several studies on how VCs choose their portfolio companies, but comparatively little academic research on how institutional investors choose the VC funds they invest in. Seppä (2000) proposed six archetypes of venture capitalist strategy logic, which could be evaluated as indicative of the motivations of the venture capitalists, but not of their investors, at least not directly.
Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

As I mentioned earlier, the main problem of this study is two-fold: why do institutional investors invest in venture capital funds in the first place, and what criteria do they use to choose between different funds?

Pension funds and insurance companies invest their funds in many asset classes with solvency requirements restricting their actions. They have a strong emphasis on capital preservation on their portfolio as a whole. Yet at the same time, they are under pressure to generate higher returns. How do these portfolio managers make their investment decisions?

It is understandable that an institutional investor mainly invests in assets with comparatively low risk. A minority of total funds can be invested in instruments with high expected-rate-of-return and high risk, among them VC funds. These legal restraints, which I will not go into in detail, are described to some extent in Finland’s Ministry of Finances' study ‘Pääomarahoituksen tarjonnan lisääminen Suomessa’ [Increasing supply for venture capital financing in Finland] (Niemi 2003, 37-39). It is however important to note that since institutional investors have such a significant role in the Finnish venture capital industry, so does the solvency requirements that affect these institutional investors.

The Finnish fund structure

Before we can concentrate in detail on how Finnish institutional investor’s operate, we will take a look at the basic structure of a venture capital fund in Finland. VC funds are quite homogeneous in many countries, though there are still some differences in the decision-making process and decision-making power. Figure 1 shows the typical structure of a Finnish venture capital fund.

Usually a venture capital fund is structured as a limited partnership. These partnerships have usually finite lifetimes. The institutional investor provides the capital and takes part in the decision making process through the investment council. The core of the structure is the VC fund, which is organised as a limited lifetime
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limited partnership. The management company is the general partner and the institutional investors are limited partners.

Usually the general partner has full decision-making power in a limited partnership, but as we can see, in the Finnish VC fund structure the limited partners have also some decision-making power through the investment council. In many cases the venture capitalists have to introduce their investment proposals (concerning target companies) to the investment council, which has veto right on them. In Finland the investment council has traditionally had a comparatively influential position. One purpose of this study is to find out institutional investors’ attitudes towards the role of the investment council. This will be discussed further in later chapters.

Methods
The study is based on a theoretical discussion and empirical research. The empirical work consists of nine interviews with Finnish institutional investors. One interview was made via telephone and the others were recorded face-to-face interviews of 30-45 minutes. All relevant institutional types are represented in the sample. Three interviews, out of 12 planned, were cancelled. Interviews comprised of open space questions, as well as qualitative and quantitative questions.

INSTITUTIONAL INVESTORS’ VENTURE CAPITAL INVESTING

The principal-agency theory
Before taking a closer look at the Finnish venture capital scene, I will consider theoretically how investors can monitor their investments in a VC fund. VCs are not investing their own money, they are investing the institutional investors money (where the managers in turn are not investing their personal funds but in many cases taxpayers money). One approach to analysing the management of ‘other people’s money’ is the principal-agency theory. This framework is widely used in different studies. The basic idea of the principal-agency theory is to analyse a situation where the ‘brains’ and the resources are separated by an agency relationship. How can we then be sure that both parties have converging objectives?

Andrei Shleifer (2000) has used the principal-agency-framework to clarify how different parties make their decisions when investing. Sleifer based his writings on Ippolito (1992), which gives the empirical facts for his study. Shleifer’s methods and theories are used mainly to analyse mutual funds but we can apply his model to venture capital funds as well. In his book: “Inefficient markets: An introduction to behavioural finance”, Shleifer separates two different situations. First he considers a situation where arbitrageurs use their own wealth to trade and they are limited only by their own risk aversion. In the second case arbitrageurs invest other investors’ funds. We therefore have principal (investors) and agents (arbitrageurs). This is also the case in venture capital investing where the venture capitalist plays the arbitrageurs role.

In Shleifer’s model, arbitrageurs invest investors’ funds using highly specialized knowledge, but how can institutional investors be sure that their capital is invested wisely, if they don’t have the same knowledge the venture capitalist has? When arbitrageurs are investing their own money they are (supposed to be) interested only in their investment’s expected rate of return. The institutional investor cannot however make his decision based on the expected rate of return (ERR) because by definition, he does not possess the information required to make an educated estimate
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of the ERR. For the institutional investor, the only way to estimate a venture capitalist’s performance is to look at the VC’s past performance, not the expected rate of return.

Shleifer refers to the phenomenon of responsiveness of funds under management to past returns as performance based arbitrage (PBA). The essential difference between the investor who invests his own money and an investor who gives his money to a fund manager to invest is the direction they look at. The investor who invests his own money is interested in the expected rate of return, i.e. the future. When an investor uses professional fund managers they must look at the agents’ earlier investment track record, i.e. the past. (Shleifer, 2000, 89-96)

Shleifer’s interpretation of the principal-agency-theory gives us guidance on how we can use this framework when we are examining VC funds. My presumption is that when arbitrageurs invest ‘other peoples’ money’ they will be largely evaluated according to past performance. Since VC funds are limited life funds, VCs will be cyclically looking for capital for a new VC fund. When a venture capitalist begins raising a new fund, his former track record is the best proof of his capability to produce more prosperity for his investors.

Covenants vs. a strong investment council

No two actors can have fully converging goals. As long as there is scarcity there will be always some conflict of interest in human action. The question is, is this conflict of interest any significance? When it comes to venture capital investing, it is. The institutional investors will always want to monitor and restrict the VCs actions in some way.

The Finnish fund structure with the influential investment council was already presented in the former chapter. If there is a clear need for monitoring and restrictions, why is the Finnish model of a strong investment council not more common? Are Finnish investors just more suspicious than foreign institutional investor because they want to have someone to look after their interest and have veto power in the investment council? Or do they possess some knowledge which foreign institutional investors don’t? Naturally US institutional investors want to monitor their investments too. This has traditionally been done with covenants.

In the US, venture capital firms are highly restricted by contract agreements. Gompers and Lerner (1996) have analysed the use of covenants in venture capital agreements. They examined 140 partnership agreements establishing venture capital funds in 1978-1992 and noticed that these contracts are quite heterogeneous in their inclusion of covenants. They formed 14 different covenant classes, which they divided into three different covenant sets. The first set included covenants relating to overall fund management, the second set included covenants relating to activities of the general partner and the third set included covenants restricting investment types. Gompers and Lerner found out that fewer restrictions were found in funds established during years with greater inflows of new capital, funds in which limited partners do not employ investment managers and funds where general partners enjoy higher levels of compensation. (Gompers & Lerner. 1996b, 463-493).
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In Finland covenants have not played an equally significant role as in many other countries. The investment council with the institutional investor’s representatives have a comparatively big role in the management of a fund even after the investment into the VC fund is made. There are signs that this is changing though.

According to my interviews, in the mid 90’s when many institutional investors started to invest in VC funds, partnership contract agreements were much shorter than nowadays. As one of the respondents said:

“Generally speaking the contracts are getting thicker. You could say that everything is specified and defined much more specifically and in detail … the Anglo-American way of doing business is spreading.”1

Gompers and Lerner also found that covenants, which were related to the management of the fund or investment type had increased with time. At the same time covenants restricting the activities of the general partner had decreased. When the venture capital limited partnerships were a relatively recent phenomenon, investor hadn’t very much knowledge about the venture capital industry. The easiest way to control the action of the general partner was to make restrictions on how they can make investments. As investors learned about venture capital, they also learned which agency costs were most probable and which actions should be most restricted. (Gompers & Lerner. 1996b, 484).

Because of the traditionally strong role of the investment council in the Finnish VC fund structure, this issue was addressed to some extent in the most of the interviews with open questions.

When asked how they view the council’s strong position, the majority of the respondents thought it to be (at least a little bit) too strong. As one of the respondents said:

“Why on earth would we want to have the decision making power, after we have chosen a management company?”2

Still, the views were mixed. One of the respondents thought that the role of the investment council could be even stronger. The majority did not see any urgent need for bigger changes (5 out of 7 respondents). Only two of the respondents stated very clearly that they thought the role of the investment council to be too strong. Two others expressed more cautious views in this direction. So, 4 out of 7 saw the role of the investment council as too strong or slightly too strong. Two respondents saw the current Finnish model as more or less good without a need for any major changes. One respondent said he was starting to lean more and more towards favouring a less influential investment council.

Still, at least 3 respondents out of 7 were clearly reluctant to give up their veto power. In addition the investment council was seen as a good source of information.
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Why invest in venture capital funds?
Finnish institutional investors put only a small fraction of their total portfolio in VC funds. What are the institutional investors incentives to invest in VC funds in the first place? We can approach this question by looking at a single venture capital investment from a risk and return perspective or we can look at the big picture, namely how a venture capital investment affects the investors’ portfolio as a whole.

In the last few years there has been a growing number of studies concerning risk and return in venture capital investments. The risks and returns of private equity differ from the risks and returns of publicly traded stocks. For this reason, we cannot use traditional finance theory as such. Poor diversification can be one reason that makes standard asset pricing theory unsuitable. Differences between private equities’ and publicly traded stocks' liquidity, information and monitoring issues are other reasons. Poor liquidity is typical for private equity investments and thus investors may require higher average returns to compensate higher risks. When investing in publicly traded stocks, investors invest only money. However, when dealing with private equity, a VC often invests their time and ‘management capacity’, that is, more than just money. VCs have a seat on the board of directors and may have the right to appoint or fire the management. (Cochrane 2001, 2, 33-34)

In his research, Cochrane used the VentureOne database which includes nearly 17000 financing rounds in nearly 8000 venture capital projects. He points out that we can only measure a return when a firm goes public, is acquired, or gets a new financing round. This will cause selection bias because these events are more likely to happen when the firm has achieved a good return. By using such a sample, results will be too optimistic. He points out that if we want to have proper answers we have to correct this selection bias. Cochrane uses log returns which improves the quality of the results. Cochrane found that single venture capital projects are not particularly attractive from a profit/loss point of view, but adding a single venture capital investment to a stock portfolio provides some diversification benefits. (Cochrane 2001, 1-6)

Cochrane’s results reveal very well the basic nature of the venture capital industry. When analyzing his results, he noticed that most of the returns are modest but there are some exceptionally good returns. This also reveals how risky an individual venture capital investment can be.

Cochraine compared venture capital investments to the S&P500 index. Standard deviation of the venture capital investment was much larger than the standard deviation of the S&P500, but when venture capital investment was compared to individual large publicly traded stocks, the difference was much smaller. According to Cochraine, after correcting the estimation bias an individual venture capital investment is not necessarily so different from publicly traded securities as we usually think. Cochrane emphasizes also the portfolio view in his study. He observed that individual venture capital investments are not particularly attractive because of the high volatility of the venture capital investment. His second observation was that adding a single venture capital investment to a portfolio doesn’t increase performance of the portfolio dramatically, but putting some weight to venture capital investment could still increase the performance. When investors put substantial weight to venture capital investment, portfolio volatility rises dramatically. (Cochrane 2001,10-34).
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Barry (1998) observes that venture capital investments correlate strongly with small cap stocks, but they have low correlation with larger cap stocks and bonds. These observations are interesting but his sample was calculated from appraisal data which is not necessarily valid as it includes cases which haven’t been exited; only cases which have been exited can be valued correctly. (Baierl, Chen & Caplan 2002, 1-9).

Baierl et. al.(2002) have investigated correlations between venture capital investments and large capitalization stocks. They included only liquidated funds in their sample when they calculated average returns, standard deviations and correlations. Thus they made sure that their data was correctly collected. Their sample included 148 funds, which were liquidated during 1960-1999. One observation was that correlation between venture capital investment and large-cap stocks was very low. These results imply that venture capital investment might have actually a total risk reducing impact on an investor’s portfolio.

In my interviews almost every respondent emphasized that VC fund investments are a good tool for diversifying their portfolios. According to one respondent:

"We want to diversify our portfolio, so that we have different kinds of investments which act differently in different markets. When we compare private equity profits, hedge fund profits, they should have as little correlation with publicly traded stocks, bonds and the real estate market as possible.”3

But we have to remember that venture capital investments represent only a small fraction of an institutional investors total portfolio, usually in the ballpark of 1-2% rather than several percentages. Two respondents stated clearly that they thought the diversification effect to be negligible. One said:

"On the venture capital side the share [of the portfolio] is so small. We are only looking for profit. So, this doesn’t work as a diversification instrument or diversification for correlation… here the main goal is profit“4

Baierl’s et. al. (2002) study reinforces this view. In their study, they found that if the aim was to create a minimum-variance portfolio, the allocation to venture capital should be about 2%. If the aim was a portfolio with the same standard deviation as the S&P 500 index, the allocation should be 4%. For the maximum Sharpe ratio portfolio, the allocation of venture capital should be 9%. (Baierl et al 2002, 6). Their material consists of VC’s investments and public equity. Institutional investor’s portfolio includes more asset classes than these. Thus their findings are not applicable as such to in this study. It rises however the important question: does venture capital investment truly diversify portfolio risk for institutional investors? When we add that Finnish venture capital has shifted significantly towards buyout investing in the past two years (FVCA Yearbook 2004, p.33) it is truly prudent to ask has venture capital investing any real or significant diversification effect on the institutional investors portfolio? This is backed up by Mayhem (2002) who refers to a 2001 Gompers and Lerner study pointing out that a 15% share of private equity in a portfolio has a clear diversification effect. The average return increases but also standard deviation
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increases a little. (Manyem 2002, 4). But we have to be more cautious about a possible diversification effect when talking about significantly smaller shares, as in this study.

The studies mentioned above emphasized the risk profile of individual venture capital investments and diversification of the portfolios with venture capital investments. Born (2004) has taken another perspective on diversification. He used a dataset of 282 European and 745 US VC funds when attempting to analyse the risk-profile of venture capital funds-of-funds. He found out that an investment in a fund-of-funds can significantly decrease risk. Funds-of-funds’ (which have invested to 20 different funds) probability to show negative results was almost zero both in Europe and the US. The probability to gain a less than 5% profit was much bigger in Europe than in the U.S. He also observed that the number of funds in the portfolio and the period of time during which funds are entered matters. A portfolio size of 20 funds already reduces the major part of diversifiable risk. (Born 2004, 1-2)

Diversification was not the only aspect emphasized in my interviews. Respondents also emphasized the high expected-rate-of-returns as one incentive to invest in venture capital funds. Even if the benefits of venture capital investment in portfolio diversification are not totally clear, it can be claimed that there is always the possibility for returns.

But how can the likelihood of high returns be evaluated? In my interviews the importance of the VCs former fund’s track came up as expected, based on former studies. (Even if the former funds have not been liquidated yet many exits have been made. Therefore the final results can be comparatively accurately estimated.) It is however good to remember that the funds that are nearing the end of their 10 year life in Finland were founded in the early and mid 90’s. The last half of the 90’s with its stock market bubble can hardly be used as an estimate for fund performance for the next 10 years.

Another factor that came up in the interviews was IRR. VC’s report the funds IRR to the investors. IRR can be a useful tool when estimating the current value of venture capital investments, but there are also some issues that we have take into consideration. The Finnish exit markets have been very challenging on the IPO-front over the past few years. As mentioned before, there has been a strong shift towards buyout investing. With limited exit opportunities even the most profitable investment will be problematic for a VC.

In conclusion, neither diversification as conducted in Finland, nor the possibility for high returns can give an unambiguous answer to the first main question of this study: why it is useful to invest in VC funds. Former studies gave us some guidelines about those benefits, which can be achieved by adding venture capital investments to the whole investment portfolio. These same elements were also found with interviews. We can presume that venture capital investments can give some diversification benefits, but a much greater problem is to solve how large should be the venture capital investments weight in the optimally diversified portfolio. Another problem is the valuation of the venture capital investments. As mentioned earlier it is not easy to evaluate the right value of the investment before exit. If we use past performance, there are some factors that we should notice. First of all we have to understand the
short history of the Finnish venture capital markets. There have been some extraordinary good historical profits, which could give us too optimistic a picture of possibilities for future gain. But many of the respondents mentioned late 90’s profits and they seem to be very well aware of the future profit possibilities.

**Criteria for choosing a venture capital fund**

So far we have discussed the specific characteristics of a typical Finnish VC fund, the traditionally significant role of the investment council in Finland, the applicability of the principal-agency-theory on venture capital investing and reasons for investors to invest in VC funds. In this chapter we will concentrate on this study’s last main question, which is fund selection, and compare earlier studies with the findings in my interviews.

In chapter ‘The principal-agency theory’ I mentioned that former studies have indicated past performance to be an important factor affecting future fund raising. This performance based arbitrage (PBA) means that investors may rationally allocate money based on past returns of arbitrageurs and withdraw funds after poor past performance. (Sleifer 2000, 88-89)

Fund performance correlation to fund flows has been documented extensively concerning mutual funds. Much of this applies to VC funds as well. Earlier studies indicate that past performance is an important determinant of new capital commitment to mutual funds when comparing funds that have the same investment focus. The relationship between past performance and new commitments has not been linear. If returns are high, funds gain more money but if returns are very low, losses of assets and fees are more modest. (Sirri & Tufano, 1998).

There have been several other studies addressing the relationship between past performance and fund flows in mutual funds. Goriaev, Nijman & Werker (2003) observed that the impact of past performance doesn’t affect fund flows immediately but there is a certain lag. Engström & Westerberg (2004) noted that past performance isn’t necessarily the most important factor in future fundraising, observing that a more important factor is information costs. Thus, foreign funds with similar track records as domestic funds don’t attract as much investment. In VC funds this is handled with funds-of-funds. My interviews showed that many respondents have some investments in funds-of-funds.

Interviews also indicated that the most important reason why an institutional investor invests in funds-of-funds is not necessarily diversification benefits, as presumed earlier. Instead the most important reason was that with funds-of-funds investors can reach geographical areas or industrial branches which would otherwise be hard to reach (e.g. American venture capital markets). These findings differ from Born (2003) who observed that funds-of-funds enable investors to gain access to a variety of VC funds in a diversified portfolio. On the basis of interviews funds-of-funds diversification wasn’t as important as I thought. Some of the respondents emphasized that the total amount of the venture capital investments in their total portfolio is so small that they don’t believe that they can achieve any better diversified portfolio with funds-of-funds, because the share of the funds-of-funds is quite small even compared to the total amount of their venture capital investments. According to former studies presented in the previous chapter, this is easy to accept. Actually we can also make a
question is the total amount of the venture capital investments, which institutional investor has in his portfolio, large enough such that we can speak of diversification benefits at all?

Kaplan & Schroar (2003) found that capital flows into private equity funds are positively and significantly related to past performance. They also found that highly performing funds don’t grow as rapidly as average performing funds. In this respect VC funds differ substantially from mutual funds. One reason might be that there is always a limited number of good deals in the economy at any point in time. (Kaplan & Schroar 2003, 21-23)

In 1996, Gompers formed his grandstanding hypothesis examining the importance of track record for future fundraising. He found out that younger venture capital firms have a disposition to exit their first investments much earlier than older venture capital firms. The reason being that younger venture capital firms need to build up their track record for the next time they are raising a fund. Thus, they might act more hastily than well-established firms. (Gompers 1996a, 134)

In my interviews, the respondents were asked to rank different factors affecting their decision to invest in venture capital funds. First they were asked to rank how important the management, the fund (the track record of the VCs former funds, profit distribution clauses, the role of the investment council) and the funds target market were, considered when choosing a fund. Not surprisingly the role of the management was seen as the most significant. Four respondents ranked it as the most important factor and four ranked it as number two. Only one respondent considered the features of the fund and markets more important than management.

Table 1 Criteria for choosing a fund
*the track record of the VCs former funds, profit distribution clauses and the role of the investment council

<table>
<thead>
<tr>
<th>Importance ranking</th>
<th>Management</th>
<th>Fund*</th>
<th>Investment market / Target market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Follow-up questions were asked about each factor. One intention was to find out about the role of past performance when track record was separated from managements track record and the VC’s former funds’ track record. When asking about management, track record was the most important criteria six times out of nine, and three respondents considered it to be the second most important.

Table 2 Sub-criteria 1: criteria when evaluating the management

<table>
<thead>
<tr>
<th>Importance ranking</th>
<th>Attitude / motivation / skills</th>
<th>Reliability / recommendations</th>
<th>Managements’ track record</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>3</td>
<td>5</td>
<td>4</td>
<td>-</td>
</tr>
</tbody>
</table>
Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

When asked about the funds characteristics, seven times out of nine the funds former track record was the most important factor. Track record seemed to be much more important than profit distribution clauses. The role of the investment council was considered to be the least important.

Table 3 Sub-criteria 2: factors when evaluating a fund structure

<table>
<thead>
<tr>
<th>Importance ranking</th>
<th>Company’s track record</th>
<th>Clauses of profit distribution</th>
<th>The role of the investment council</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

The third sub-criteria was the characteristics of the investment markets. Eight times out of nine the amount of the potential target companies was considered the most important characteristic of the investment market. It was considered more important than the expected growth rate of the markets or competition between funds.

Table 4 Sub-criteria 3: criteria when evaluating the target market

<table>
<thead>
<tr>
<th>Importance ranking</th>
<th>Quality/amount of potential target companies</th>
<th>Expected market growth rate</th>
<th>Competition between funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Because of the small sample available in Finland, we have to be careful how we interpret these answers. We can’t have any statistically significant answers but this survey can still help us to build a better understanding of the Finnish venture capital market. Former studies, not focusing on the Finnish market, suggest that past performance is the most important factor when investors are making investment decisions. My interviews seem to confirm that, both when looking at the management’s past performance or former fund's performance. Open questions give similar answers. In many of the interviews the importance of the past performance was mentioned and particularly the importance of the management’s track record. It seems that track record of fund management is more important than track record of the fund.

The open questions also revealed that ownership and the general structure of the VC fund matters. When asked to choose between three VC fund types: partner driven (or entrepreneurial), institutional (or corporate) and government, all respondents picked the partner driven fund as the most attractive. The argumentation was in line with the principal-agency-theory, which indicates that, when entrepreneurial, venture capital firms are most likely to be interested in increasing the value of their investors’ investments. The respondents saw greater likelihood for hidden agendas in the two latter structures, hence also supporting the archetypes of strategy logic by Seppä (2000)

CONCLUSIONS

The two main problems posed in this study were: 1) why do institutional investors invest in venture capital funds and 2) how do institutional investors choose between
Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

different VC funds? A methodological concern for this study was the small number of institutional investors which invest in venture capital funds in Finland. That is the reason why the sample of this study could not be very large.

The first main question of this study focused on the concept of the diversification of the portfolio and the risk profile of the venture capital investments. Traditional portfolio theories cannot give perfect answers as to how venture capital investments should be weighted in large portfolios. Can they decrease the total risk of the portfolio and how large should the weight of the venture capital investments be in the portfolio? In the case of the institutional investor we have to also remember that there are legal restrictions as to how much investors can invest in venture capital markets. Most of the respondents emphasized the diversification effect that they can achieve through venture capital investments. But only a couple of them noted that the share of venture capital investments in their portfolio is so small that it does not necessarily help the diversification. But still the basic idea of diversification of the portfolio was mentioned almost in every answer, which is in line with former studies. Also the possibility to achieve high returns was a most important factor even if the benefits of a diversification effect were unclear.

The second main question is theoretically based on principal-agent theory. A presumption was that because institutional investors play a limited partner’s role, the only way to estimate a VC’s capability is the VC’s former track record. This is a commonly known fact: when brains and resources are separated by an agency relationship, the only way to appraise an agents’ action is their past performance. According to my interviews this is true also in the Finnish venture capital market. Because of the small sample it is not possible to make any quantitative analysis or generalisations but we can still make some observations. When venture capital firm’s track record and management’s track record were separated, respondents had to rate the most important factors affecting the selection between funds. Former track record seems to be the most important factor according respondents in both cases. Also, open questions supported these observations.

An interesting addition to this study is the role of the investment council. In Finland, the investment council has some decision making power whereas in many other countries this kind of body does not exist. Former studies revealed that in many venture capital markets (at least in the U.S.), covenants play a great role in contracts between investors and the venture capital firm. So there is no need to have an investment council; investors can restrict the venture capital firm’s action with detailed contracts. But why do we have this kind of body in Finland? My presumption at the beginning was that respondents would support the council’s existence because it should supervise that investment decisions are made wisely. The responses I received did not support this presumption completely. Some of the respondents were quite reserved about the position of the investment council. They thought that such a council could not have better knowledge over the investee candidates than venture capital firms, so how could they evaluate investment decisions more wisely than the venture capital firms? If a venture capital firm investigates potential investment target for months, how could an investment council have a better knowledge? Some of the respondents however emphasized the role of the council as a monitoring and reporting body. They thought that with such an body, investors are better aware of how their funds are invested. Also the contracting practises have changed during the last ten
Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds

years. In the early years, contracts were quite thin and did not restrict VC’s action very powerfully. Nowadays, contracts are written with much more detail and decrease the necessity of a strong investment council. These observations are well in line with former studies which handle covenants in venture capital contracts: Contracts are getting more detailed.

All in all, this work gives some answers to the research phenomenon addressed but also raises new questions that would be interesting to study in the future. For example: what is a suitable weight of venture capital investment in an optimally diversified portfolio? Should institutional investors have fewer restrictions on how they can invest their funds, if they wish to realize that optimally diversified portfolio? What should be the position of the investment council in the future or is there actually any need for that kind of a body – at least when maximal rates of return are targeted by venture capital firms based on entrepreneurial incentives?

REFERENCES


Institutional Investor’s Decision Making Criteria for Investing in Venture Capital Funds


1 Original Finnish quote with colloquialisms edited to written language: “Yleisesti ottaen sopimusniput paksuuntuneet. Eli tästä voi sanoa näin, että kaikki asiat määritellään ja definioidaan huomattavasti tarkemmin ja yksityiskohtaisemmin... Angloamerikkalainen tapa tehdä businestä leviää.”

2 Original Finnish quote: “Miksi ihmeessä me haluttaisiin päätöksenteko sen jälkeen, kun me ollaan valittu se (hallinnointiyhtiö).”

3 Original Finnish quote: ”Me halutaan hajauttaa sijoitussalkkua, niin että sellaisia tuottoelementtejä jotka vaihtelee eri tavalla eri markkinoissa. Verrataan private equity tuottoja, tai hedge fund tuottoja, niin pitäisi olla mahdollisimman vähän korreloiva listattuihin osakkeisiin, korkoihin tai kiinteistömarkkinaan nähden.”

4 Original Finnish quote: ”Nyt pääomasiijoituspumolla niin tämä osuus on niin pieni. Ja tällä haetaan vain tuottoa. Tämä ei siis toimi hajautuselementtinä eikä korrelaation hajautuselementtinä... Tässä se päätavoite on tuotto...”
Bridging the Capital Gap: The Role of Business Angels in Taking Ventures to Capital

Oskari Juurikkala

This paper is a shortened version of MSc thesis ‘Principals and Agents in GrowthVenture Finance: A Comparison of Venture Capitalist and Business Angel Investment Strategies’ and is accepted for presentation at the ProACT Innovation Pressure Conference 2006 Conference in Tampere, Finland, 15-17 March, 2006.

INTRODUCTION

Venture capital finance is crucial to innovative growth venturing. Banks generally do not fund high-risk businesses that require heavy up-front investment. Unfortunately many growth ventures find it difficult to get funding for their early stages. This phenomenon has been termed ‘capital gap’ (Harrison & Mason 1992, Kelly 1996, Lumme, Mason & Suomi 1998).

The capital gap is not an inevitable phenomenon like the law of gravity, given that many successful growth ventures do find funding. However, such early funding comes largely from so-called ‘business angels’ (BAs) rather than institutional venture capitalists (VCs). These two players have adopted complementary roles in terms of both size and stage of investment: BAs look after the first steps and VCs invest bigger amounts in later stages (Freear & Wetzel 1990). This difference between BAs and VCs has been almost entirely ignored in theoretical venture capital literature. Van Osnabrugge (2000) is so far possibly the only paper that analyses the different investment strategies and preferences of BAs and VCs. The present paper builds on his findings.

The present author argues that VCs avoid small and early ventures because of the institutional nature of VC funds. VCs invest others people’s money, which translates into potential moral hazard and adverse selection problems for their outside investors. Empirical studies demonstrate that VCs prefer investment strategies that enhance their relationship with external investors. BAs invest their own money and have consequently adopted more entrepreneurial investment strategies, which are better suited for early-stage ventures.

Section 2 looks at the growth venturing process and the different roles played by VCs and BAs. Section 3 discusses different ways in which asymmetric information affects growth venture finance. Section 4 analyses the operation of venture capital funds in light of asymmetric information for external investors. Section 5 discusses possible consequences of the VC fund structure, and section 6 compares the actual investment strategies of VCs and BAs. Section 7 concludes with practical implications of the findings.

GROWTH VENTURING AND THE ‘CAPITAL GAP’

VCs and BAs in the growth venturing process

Growth venturing is entrepreneurship that is generally based on some specific innovation (e.g. a technological discovery, a novel service concept or a logistical
Bridging the Capital Gap

innovation). For investors growth ventures are both terribly exciting and awfully challenging. This is due to two factors: the risk and uncertainty involved with high technology, and the information asymmetries that come with expert labour and intangible assets which have little liquidation value. As a result, banks tend to play very a very limited role in growth venture finance.

The financing of growth ventures usually goes through distinct stages of development (see Figure 1). The present paper will use ‘early stages’ to refer to both seed and start-up ventures. In these stages the concept is being tested and a prototype may be developed. ‘Later stages’ refer to those firms that are in the growth and established stages, in which the venture is expanding and producing, yet it is probably still unprofitable.

![Figure 1 The development and financing of growth ventures (Van Osnabrugge & Robinson 2002)](image)

This picture of the growth venturing process suggests the venture capitalists and business angels are not direct competitors but play complementary roles. Unfortunately, detailed comparative quantitative studies on the growth venturing process are few and far between. The best study found in the course of the present study is by Freear & Wetzel (1990), who studied the financial histories of 284 high technology firms founded in New England between 1975 and 1986. The great methodological advantage of this study is that the data has been gathered by asking the ventures where they got their money from – not from different investors where they put their money. This way the data can be used directly to compare the roles of different investors in the different stages of venture growth.

The authors found, firstly, that business angels were the most common source of finance in terms of the total number of ventures financed. However, in terms of dollar amounts, venture capital funds provided five times as much as business angels. In other words, business angels financed more firms, but venture capitalists supplied more money. (See Table 1 for details.)
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Secondly, in the seed-stage BAs were practically the only source of capital, and they dominated the start-up stage too. In later stages and bigger financing needs, VCs dominated the market. Moreover, BAs tended to invest much small amounts per round than VCs did. Freear & Wetzel concluded that BAs and VCs play complementary rather than competing roles in growth venture finance, both in terms of size and stage of their investments.

Table 1 Comparative data on growth venture financing in New England 1975-1986 (Adapted from Freear & Wetzel 1990)

<table>
<thead>
<tr>
<th></th>
<th>Business angels</th>
<th>Venture capitalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of firms financed</td>
<td>124 firms</td>
<td>90 firms</td>
</tr>
<tr>
<td>Total amount invested</td>
<td>$76 million</td>
<td>$370 million</td>
</tr>
<tr>
<td>Dominant investment range</td>
<td>up to $500,000</td>
<td>$500,000 upwards</td>
</tr>
<tr>
<td>Median investment (per round)</td>
<td>under $500,000</td>
<td>$1-3 million</td>
</tr>
</tbody>
</table>

Although there is no such comparative data available from Finland, Finnish data is consistent with the above picture. According to FVCA (2003), VCs invested 10-20% of their total amounts in seed and start-up ventures in 1996-2002. They preferred expansion-stage ventures and MBO/MBI investments. In contrast, Lumme, Mason & Suomi (1998) found that business angels made three-quarters of their investments in early stages. Most of these investments were less than FIM 800,000 in size, compared to an average VC investment of FIM 3.5 million in 1996.

The ‘capital gap’
In the US, the amount of business angel investments is very significant in comparison to institutional venture capital investments, both in terms of the amount of money invested and the number of businesses supported (e.g. Freear & Wetzel 1990). In Europe, there are fewer business angels, mainly because of a more corporate economy and of higher personal income tax rates, which hinder capital accumulation (Harrison & Mason 1992, Landström 1993).

Several authors argue that there tends to be a ‘capital gap’ in the seed and start-up stages of the growth venturing process (Harrison & Mason 1992, Kelly 1996, Lumme, Mason & Suomi 1998). Freear, Sohl & Wetzel (1996) find that, even in the US, the venture capital gap lies with seed and start-up capital in the $250,000 to $1 million range. Amounts smaller than $250,000 can be gathered from other sources, and amounts larger than $1 million will be provided by venture capital funds, but the middle range is left under-funded unless it is filled by BAs. Harrison & Mason (1992) identify a similar range in the UK.

Some recent authors have suggested that seed and start-up ventures also face a ‘knowledge gap’ (Rasila 2004). This is closely related to the capital gap: the knowledge gap means that entrepreneurs often lack the skills necessary for converting an emerging business idea to a successful enterprise. Institutional venture capitalists (and traditional lenders such as banks) tend to have a capital-intensive investment strategy, and they do not provide sufficient hands-on advice needed by many start-up entrepreneurs. (See Figure 2.)
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Figure 2 The capital gap and the knowledge gap (Rasila, Seppä & Hannula 2002)

GROWTH VENTURE FINANCE AND INFORMATIONAL ASYMMETRIES

One fruitful way of analysing growth venture finance is to focus on the consequences of imperfect information. Reliable information is essential to all business decision making, and economic theory has identified asymmetric information as a key factor in shaping markets, financial markets in particular (see e.g. Hart 2001). Informational asymmetries are particularly relevant in so-called principal-agent relationship, in which the welfare of one party (principal) depends on the action of another party (agent). Growth venture investors are principals in this sense, while the venture entrepreneurs are their agents.

There are two main types of informational asymmetries: hidden information and hidden action. Hidden information means that the investor may not have full knowledge of the quality of the project and the skills of the entrepreneur. The informed party then has an incentive to misrepresent his information for example by overstating his expectations of product development. If the investor does not have suitable means of screening the applicants, the market may be crowded with low quality projects and entrepreneurs, resulting in adverse selection. As the investor understands this problem, he may choose not to invest at all, and the market breaks down (see Akerlof 1970).

Hidden action results from the fact that the investor cannot fully observe what the entrepreneur does with the money. There is a risk that the latter will ’shirk’ and not put any effort in his job, waste money in personal expenses, or even run away with the money. If the investor does not have effective means of monitoring the investment, problems of moral hazard may result (see Holmström 1978).

Now, Sahlman (1990) argues that the actual methods employed by venture investors mainly aim at alleviating these informational problems. Various authors have subsequently studied these methods and the role they play. The following section summarises them.

Methods for alleviating adverse selection

Fried & Hisrich (1994) characterise venture capitalists as ‘information producers’. They argue that venture capitalists become efficient in producing information of venture investments, because they specialise in certain types of ventures and
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industries, thereby exploiting the learning curve and economies of scale involved in screening potential ventures.

Sahlman (1990) notes that contract design can also be used as a way of sorting out bad applications, thus reducing the burden of positive investigation. For example, the pay of the entrepreneur is generally tied to the performance of the venture. This does two things: it gives the entrepreneur an incentive to put in his full effort and it discourages poor entrepreneurs from approaching venture capitalists.

Another common method for mitigating adverse selection is the use of staged financing (Gompers 1995). Instead of giving all the money needed for the venture, venture investors tend to invest in small stages. This enables them to make a small commitment only before seeing the entrepreneur in practice. Further finance is made contingent on the successful attainment of specified milestones, which demonstrate the viability of the project and the quality of the entrepreneur. The investor can thus update his information before each financing stage. Staged financing can also be seen as a way of imposing financial discipline: the literature on ‘soft budget constraints’ shows that too strong commitment by creditors or investors can lead them to continue to finance low-quality projects because of the sunk costs that have already been incurred (Dewatripont & Maskin 1995). On the negative side, overly strict budget constraints can cause inefficient ‘short-termism’. But that may be unavoidable when the investor has imperfect information about the project quality and the entrepreneur may misrepresent its progress to the investor, because he has more to lose if the venture is shut down (Bergemann & Hege 2005).

Informational problems can also be mitigated by the allocation of control rights. Kaplan and Strömberg (2003) study in detail the actual contractual provisions used in venture capital finance. They find that VC contracts allocate separately cash flow rights, board rights, voting rights, liquidation rights, and other control rights. These allocations are made contingent on observable measures of financial and non-financial performance. Thus, the contract will say that, in the case of poor performance, the board, voting and liquidation rights will be allocated to the venture capitalist, who can then use them to take over the management of the business and, if necessary, liquidate it for what it is worth. On the other hand, the contract may stipulate that in the case of very good performance the VC relinquishes most control and liquidation rights, mainly retaining mere cash flow rights. In addition to rights allocation, the authors find that VC contracts often include non-compete and vesting provisions, which effectively make it more expensive for the entrepreneur to leave the venture. As argued above, provisions such as these do not only serve to empower the investor after the investment has been made, but they are also likely to mitigating the adverse selection problem by discouraging weak entrepreneurs and projects from accepting the investor’s offer.

Finally, venture capitalists frequently claim that syndication – i.e. joint finance by two or more investors – is a method of reducing informational problems. Lerner (1994) examines this claim by looking at the widespread practice of syndication of investments by venture capitalists both during initial investment and in later stages. He finds that some aspects of the practice can be seen as a method of ‘decision sharing’, which may increase the objectivity of the decision to invest.
Methods for alleviating moral hazard
As already noted, some investment methods attack both adverse selection and moral hazard. In addition to those, venture investors also engage in various activities specifically to reduce moral hazard. Gorman & Sahlman (1989) notice that venture capitalists tend to be actively involved in their investments, not only monitoring them but also supporting them by their own management experience, industry expertise and contacts with lawyers and accountants. They often help with the building up a professional management team, and they bring reputation, which is necessary when the venture is sold in an IPO or a trade sale.

The efficiency of venture investors in reducing moral hazard problems seems to lie in the overall package of their approach. Repullo & Suarez (2004) argue that one of the reasons why venture capitalists are more efficient in performing such functions is that they provide a combination of monitoring and support services. By organising their operations to provide support and consultation services, they also gain information relevant from a monitoring perspective. Casamatta (2003) also argues that providing finance and advice together is more efficient than providing either separately.

ECONOMICS OF VENTURE CAPITAL FUNDS
Most studies on the economics of venture capital focus on the relationship between the investor (principal) and the entrepreneur (agent). However, there exists another principal-agent relationship: the one between VCs and their external investors. It is argued here that the institutional nature of venture capital funds significantly affects their investment behaviour. The following is mainly based on Sahlman (1990) as well as Gompers & Lerner (2000), Barry (1994) and Seppä (2000).

Fund structure and formation
Venture capital funds are most commonly structured as limited partnership companies. They have a limited life, after which the total funds are distributed and the fund vehicle is liquidated. The external investors of the fund act as limited partners, whereas the fund managers (i.e. VCs) act as general partners of the company.

The money for venture capital funds mainly comes from insurance companies and pension funds, with smaller amounts from more diverse institutions, including banks, the government and wealthy individuals (see FVCA 2003, Barry 1994). The venture capitalists, acting as general partners, are in charge of setting up the company and attracting external investments. They themselves usually supply no more than 1% of the total funds, which means that almost all the money comes from the external investors.

Venture capital funds are generally very large. Sahlman (1990) reports that in 1988 the average capital of all US venture capital firms was over $47 million and the largest 89 firms controlled an average of almost $200 million. Barry (1990) gives several reasons for this size of VC funds, for example that regulatory considerations require that each external investor only have a minor share of the entire fund. This leads to large funds, because investors such as insurance companies want to invest vast amounts of money and are not interested in small individual investments. Moreover, the negotiating and contracting costs are high, which makes it inefficient to set up small funds.
Agency problems and contract design

The fund managers are in charge of investing a large pool of money coming from a variety of sources. This gives rise to various agency problems based on asymmetric information. Firstly, there is a problem of hidden information, because the quality of VCs is not directly observable and there is a problem of potential adverse selection. In other words, if external investors cannot distinguish between skilful and non-skilful VCs, they may price the former out of the market. The past track record of VCs will of course serve as one source of information.

Secondly and more importantly, there are potential conflicts of interest between VCs and their external investors. This can lead to hidden action in the form of shirking and mismanagement of the fund resources. In particular, the fact that the manager has a limited liability position may induce him to take excessive risks. Growth venture investments are highly uncertain and volatile, which makes it difficult to use fund performance alone as a reliable measure of VC trustworthiness.

Sahlman (1990) argues that many of the widespread features of VC-fund contracts mitigate agency problems between VCs and their external investors. First, venture capital funds are set up for a limited lifetime, most commonly 10 years, after which the company is liquidated. This is an attempt to balance between giving the fund managers sufficient flexibility and safeguarding the position of the external investors. The liquidation is accompanied by an audit, at which stage possible mismanagement of the fund may be detected.

Secondly, VCs are compensated to a much higher degree than their initial share in the total fund. The most common (in fact almost standard) compensation scheme is two-fold: (1) VCs receive each year a 2-3% fixed management fee as a proportion of the entire fund capital; (2) in addition, they accrue a significant 20% of the realised investment gains (or 'carried interest’). This combination is meant to guarantee a certain basic income not subject to market volatility, while also strongly aligning the VC’s interests with those of the external investors in making real investment profits.

This arrangement is likely to have both incentive and sorting effects, thereby reducing both adverse selection and moral hazard. Sahlman (1990) shows that, in practice, the carried interest part makes usually at least half of a VC’s income, although this
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proportion can vary greatly. For successful VCs the realised gains therefore constitute most of their income.

The contract between external investors and VCs is nevertheless largely indeterminate, giving VCs more or less free hands in managing the pool of funds. This is not surprising if one recalls that the external investors are mostly institutions (pension funds and insurance companies) that also manage other people’s money. Their total funds are very large indeed, which means that their investments into venture capital funds often represent no more than about 1% of their total investments. In consequence, the venture capital investments are not a top priority for them. This explains their relatively passive dealing with VCs.

Comparison of VC and BA investment contexts
It is now useful to compare the institutional context of VCs to those of BAs. VCs invest other people’s money, whereas BAs invest their own money (whether acquired by inheritance or by successfully running an own business).

The most importance consequence is that VCs operate under two separate principal-agent problems. As investors, they face an agency problem with the entrepreneur, giving rise to potential adverse selection and moral hazard problems. In addition, VCs act as agents for their external investors. Thus there is a double agency problem. BAs, who invest their own money, are only affected by the first agency problem.

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under any investment, whether it is a success or a failure. A VC invests others’ money, so that he has ‘limited liability’ for his investments. External investors have the same profile as the BA (although in practice they too are often mere fund managers).

Assume there are two types of projects. Let it be that project 1 has a greater expected value than project 2, \(E(r_1) > E(r_2)\), but return from project 2, \(r\), is riskier (i.e. more volatile) than \(r\). This will be the case if, for example, project 1 is a straightforward business concept, whereas project 2 is an adventurous idea, based on an innovative technology not yet in existence. Thus project 2 holds potentially greater profits, but the likelihood of success is lower.

Even if both BA and VC are able to identify the projects, it can happen that the BA will choose project 1 and the VC will choose project 2. BA’s expected profit from the investment is

\[
\pi_{BA} = rI
\]

where \(r\) is the growth of the investment and \(I\) is the total investment. VC’s expected profit is

\[
\pi_{VC} = \alpha rI + \beta I, \text{ for } r \geq 0, \text{ and } \pi_{VC} = \beta I, \text{ for } r < 0,
\]

where \(\alpha\) is his contractual share of the investment gains (‘carried interest’) and \(\beta\) is his fixed management fee as a share of the total fund. When \(r\) is negative, the VC bears no losses and still takes the fixed management fee.

Consider the following case. There are two projects, both for the value of 100,000. The first one promises a yield of +10% with certainty. The second one promises +30% at probability 0.5 but –20% at probability 0.5. Their expected profits to the BA will be

\[
\begin{align*}
\pi_{BA} &= 0.1 \cdot 100,000 = 10,000 \text{ (project 1) and } \\
\pi_{BA} &= 0.5 \cdot (-0.2) \cdot 100,000 + 0.5 \cdot 0.3 \cdot 100,000 = 5,000 \text{ (project 2)}
\end{align*}
\]

The VC will expect rather different profits to himself. Most commonly, the VC’s share in the carried interest is 20%, so that \(\alpha = 0.20\), and the fixed management fee is 2% of the total fund, \(\beta = 0.02\). Thus he would receive

\[
\begin{align*}
\pi_{VC} &= 0.2 \cdot 0.1 \cdot 100,000 + 0.02 \cdot 100,000 = 4,000 \text{ (project 1) and } \\
\pi_{VC} &= 0.5 \cdot 0.2 \cdot 0.3 \cdot 100,000 + 0.02 \cdot 100,000 = 5,000 \text{ (project 2)}.
\end{align*}
\]

In this example, a self-maximising and risk-neutral VC will choose project 2, even though that is manifestly detrimental to his external investors. Of course, in practice excessive risk-taking can manifest itself in many ways. For example, a VC might simply decide to invest in all sorts of adventurous projects without proper screening.
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and monitoring. This is not an exaggeration given that it seems there were several such badly managed venture investment cases during the 1990s technology bubble.  

**Due diligence as a response**

The problem facing the external investors with the VC is similar to that facing the VC with entrepreneurs: there may be hidden action and hidden information, giving rise to moral hazard and adverse selection problems. Excessive risk-taking is just one possible form of moral hazard. The external investors of course wish to discourage such excessive risk-taking. They may attempt this in a number of ways. For example, the VC fund contract may provide some provisions on investment strategy, risk profile and so on. However, it may be undesirable for the investors to monitor the investment activity in great detail. Besides, taking all factors into account would be unreasonable, because the cost of negotiating and drafting is high and there are many contingencies that are simply impossible to take into account.

A way to alleviate moral hazard and adverse selection is to demand a verifiable quality signal from the VC. One such possible signal is a due diligence report, which outlines the steps taken by the VC to screen the investments in terms of their relevant characteristics. However, producing due diligence may be costly and time-consuming. Therefore a VC’s willingness to invest at an early stage depends on (1) the cost of completing a satisfactory due diligence report and (2) the likelihood that venture will have the pre-determined characteristics. It is clear that extensive due diligence is more costly, the less mature the venture is, because obtaining information becomes easier as the project matures. Alternatively the information obtained from an earlier project is less reliable. It follows that when this difference is significant, a VC will be at a disadvantage in comparison to a BA who need not prepare a due diligence report for external investors.

**COMPARISON OF ACTUAL INVESTMENT STRATEGIES**

Empirical surveys on the investment strategies of VCs and BAs support the foregoing argument. This section shows that, although both investors are generally concerned with similar issues, the actual decision-making process seems substantially different. Venture capitalists tend emphasise objective ex ante criteria, whereas business angels focus more on personal involvement and ex post control of the venture. First of all, VCs tend to screen their investment differently from BAs. According to Fried & Hisrich (1994), VCs look for three generic criteria: (1) concept, (2) management and (3) returns, all of which can be broken down to more specific criteria. The authors found that the decision-making process of VCs is highly time consuming and labour-intensive: the screening of an investment takes an average of 97.1 days and consumes an average of 129.5 hours of the VC’s time.

In their study of BAs, Lumme, Mason & Suomi (1998) note interesting differences to the VC screening approach. Although the key criteria used by BAs are largely similar to those employed by VCs, there are also differences. The first is the emphasis placed on the entrepreneur or the management team: BAs are concerned with their competence, motivation, attitudes and trustworthiness, which reflects the fact that BAs generally rely less than VCs on contract design to alleviate moral hazard problems. ‘Personal chemistry’ is also essential, because BAs usually intend to become actively involved in the management of the venture. BAs also want their personal experience to fit the industry of the venture, because they wish to use their
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skills and experience to contribute to the business. In contrast to VCs, BAs tend not to engage in systematic market analysis, but will rely more on their ‘intuitive’ sense of the project’s market potential and competition, using their prior experience in the industry.

Now, some of the screening differences reflect an entirely different strategic outlook. Indeed, Van Osnabrugge (2000) argues that screening methods cannot be isolated from the broader investment strategy, especially the extent to which the investor plans to become involved in the management of the venture. He compared the overall investment procedures of BAs and VCs in the UK, using data from 40 personal interviews and 262 questionnaire responses.

Van Osnabrugge found that VCs placed much greater emphasis on strict rules of screening and due diligence. Later on, their involvement in the ventures was largely limited to passive monitoring so as to reduce risks. They also focused on exit options from the outset. In contrast, BAs had fewer rules and objective requirements. They tended to become more actively involved in the management of the ventures, both to reduce risks and to support the entrepreneur. Their exit-horizons were generally longer than those of VCs.

Significantly, there is a clear difference with respect to due diligence. In Van Osnabrugge’s data, VCs met the entrepreneur on average twice as many times as BAs did. They spent more time documenting the investment process itself, and they demanded more comprehensive business plans from entrepreneurs. In terms of actual costs, VCs spent on due diligence on average 1.3% of the amount invested, as opposed to 0.67% by BAs. But this is proportionate to the amount invested, when the mean invested amounts were £3.2m and £290,000 respectively. In conclusion, *VCs spent on average about 20 times more money on due diligence!*

Van Osnabrugge actually hints at something that is at the heart of the present study, namely that the VC investment strategy may be influenced by the pressures from their external investors. He argues that when there is competition for funds, VCs will want to employ different signals to investors. Such signals include maintaining a good reputation, presenting impressive fund manager qualifications, and demonstrating the use of responsible procedures in choosing investments – thus the heavy emphasis on carefully documented due diligence.

**Selection efficiency in different stages of development**
The screening methodology of VCs reflects a certain professionalism, which may be lacking among some BAs. Such professionalism is arguably desirable especially in later-stage ventures. However, it may not always be so. For example Fried & Hisrich (1994) claim that, in their interview sample, the venture capitalists actually disagreed among themselves on what criteria are the most important for assessing potential investment proposals. Even when they agreed on the generic criteria, they tended to disagree on the relative weight of each criterion. When they were asked to apply the criteria to concrete examples, they reached different conclusions as to whether the specific criteria had been met. In conclusion, the value of extensive due diligence can be questioned. The application of specific criteria is subject to a genuine process of human discernment, or ‘intuition’.
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The role of this intuitive element is likely to be more significant when the venture is less mature. This is supported by studies by cognitive psychologists on complex decision-making. Such studies argue that the human capacity of analysing vast amounts of information and incorporating them into their decision-making is very limited indeed. Zacharakis & Meyer (1998) apply these insights into the growth venturing realm by constructing an experimental environment in which they can study how venture capitalists use given data to select among different venture proposals, and they then compare this with how the VCs themselves think they came to the decision. Zacharakis & Meyer find that, although the VCs were internally consistent in their decision-making, they did not understand their own decision-making processes. Their post-decision introspection tended to be biased towards certain factors, which did not receive such importance during the decision-making. In conclusion the authors argue that VCs actually relied heavily on their intuition, and the number of factors the VCs took into account tended to be smaller than they thought afterwards. VCs are good and efficient decision-makers, but extensive due diligence may add little more than convince external investors.

CONCLUSIONS

VCs and BAs play complementary roles in growth venture finance. The reason seems to lie in the institutional nature of VC funds. As a response to competition for external investors, VCs have adopted investment strategies that are convincing and reliable for their investors. BAs in contrast are more entrepreneurial and get more personally involved in their investments. The investment approach of VCs may be more professional than that of BAs, but may not be so efficient for investing in small and early-stage ventures.

There are important policy implications. Firstly, it is questionable whether public VC funds can successfully bridge the capital and knowledge gaps found among early-stage ventures. Governments that channel funds to public sector start-up funds rarely realise what difficulties such investing entails. The informational problems are particularly severe in early-stage growth ventures and public bodies are not likely to possess the entrepreneurial skills necessary for dealing with these problems successfully. Besides, public sector initiatives tend to be free from the healthy pressures of external competition and internal shareholder demands. In addition to wasting taxpayer money, such public sector activities may also cause disruptive crowding-out effects on the market: they provide cheap capital at unprofitable rates, thereby discouraging the development of a healthy, efficient and profitable market for funding early-stage growth ventures.

Secondly, it seems that BAs are the most promising solution to the capital gap. However, the growth of BAs is significantly hindered in Europe by high taxation rates. Such taxation reduces the number of wealthy entrepreneurs who, as business angels, would become the financiers and supporters of the next generations of start-up entrepreneurs.

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1 On the other hand, Lerner (1994) finds that syndication may also be used as a method of ‘window dressing’, as others have argued in relation to pension fund management. Lerner finds that VCs often invest by syndication in promising later-stage ventures even when the price is dear and the returns are therefore low. This ‘successful’ investment can then be included in reports and advertisements to external investors, who often simply look at overall returns and the firms in which the VC invested – not at what stage and at what price the VC entered each investment. It would be interesting to know whether business angels also engage in the syndication of their investments; after all they have no reason to appear profitable to outsiders.

2 In Finnish, ‘kommandiittiyhtiö’

3 Seppä (2000) discusses these matters in more detail. One of his findings is that commonly VCs establish their own limited liability company (‘osakeyhtiö’), which then will function as the general partner (‘vastuunalainen yhtiömies’) of the limited partnership.

4 The most famous growth venture scandal was Riot Entertainment, which attracted 20 million dollars from investors including Nokia, and ended up bankrupt having produced practically nothing.

5 This can be the case either because they cannot be contemplated or because it is impossible to assign probabilities for them and provide contractual remedies. Hart (1995) discusses in detail these issues and their role in real-life contracts.

6 Note that this conflicts with the assertion of some authors who claim that venture capitalists are actively involved in running the businesses (e.g. Gorman & Sahlman 1989). There is reason to believe that the latter view is methodologically dubious, because it is based on questionnaires given to venture capitalists. It is very likely indeed the venture capitalists will overstate their actual involvement.
Traditional and Emerging Venture-to-Capital Business Models

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This paper was presented at the eBRF 2002 Conference in Tampere, Finland, 5-6 November, 2002, and originally published in the Conference Proceedings, Frontiers of e-Business Research FeBR 2002.

INTRODUCTION

The importance of small and growing enterprises in creation of jobs, innovations and wealth is unquestionable. Studies about New Technology-Based Firms (NTBF) and Venture Capital show that both the supply of good start-up companies and supply of capital to fund these ventures is vital to success. Still, despite the general availability of funding and several principal models for aiding fledgling companies, many promising ventures fail to make it and sink into oblivion before crossing the hurdle to success.

Over the years, scarcity of seed funding and the existence of capital gap, have become a major obstacle in growth of start-up companies. Venture capital as an industry has travelled far from the original classic VC model born in the 50’s, as Bygrave and Timmons noted in their landmark book “Venture Capital at the Crossroads” (Bygrave & Timmons 1992). At the same time, venture capitalists would need more ventures to soak the capital from their funds profitably. This mismatch inevitably has impact on national economies if not dealt with. Something can be done, and indeed, in a free economy it is evident that new business models will arise, if existing ones are not operating perfectly.

Nevertheless, the key problem is that many promising companies fail to get investment, even though they seemingly have got all the parts needed of success. Is there something wrong? There are various reasons for this, and of course, not all companies are fit for success in the first place. But if we define that receiving venture capital funding (so-called “first round”) would be a measure for success, we can reflect the challenge facing these new, usually fast-growing companies against the investment criteria of VC companies.

Venture-To-Capital (V2C) in Brief

First of all, we call the area starting from birth of the company and ending to the point when it arrives to the operating environment of VC companies the Venture-to-Capital (V2C) area. Secondly, our hypothesis is that this V2C area works deficiently like any market which is in development. Therefore, the assumption is that the current operating models can be developed further, thus improving target start-up’s chances for success.

When looking at work of Mason and Harrison, we see that a given company has to possess certain qualities to be “investment-ready”: It has to have suitable organization structure, be willing to grow, be prepared to give out certain amount of ownership and control in exchange for the investment, and so on. In practice, this means that the
company has intrinsically prepared itself for being able to absorb the investment and use it for growth (Mason and Harrison, 2000, 2001 and 2002). Much in the same manner, venture capitalists have their requirements, checklists, and other investment criteria to assist them in screening their prospective target companies. In V2C context, when a company fulfils these investment criteria it becomes “investable”.

Similarly, a V2C operative has its set of criteria for screening of “viable” or “promising” companies. In V2C context, when a company is of interest to the V2C it is called “prospective” venture. Implicitly, this definition also carries the notion that a prospective company has potential to become of interest to the venture capital market. In other words, a prospective venture possesses potential to become investable.

When a given company has reached the status of being investable, the suggested model assumes that it will eventually receive investment. As the VC enters the company as an owner, it is assumed from the principles of venture capital finance that he brings along many functions needed to develop the company further (see e.g. Seppä, 2000). The ultimate goal for the VC is exit, for which the company has to reach “listable” status. The term refers to public listing of the company, realized by an IPO, but we must not look at the case so narrow-mindedly since most exits happen through trade sale. Nevertheless, the requirements for a listable company fulfil the needs for both IPO and trade sale, and it is a task of the venture capitalist to guide the company to this stage.

After the exit the company either is public (in the case of an IPO) or ceases to exist as a legal entity it was (in the case of an acquisition). Thus, if the company exists, it is “public”. This operating mode was preceded by “VC mode” and “V2C mode”, when the venture was being assisted and backed by either V2C or VC operative. Before this, the venture was alone, playing “solo”, although we have to note that the division is not always this clear-cut: V2C players may be present to certain extent also in the initiating phases of a company, and still continue their work during the VC phase. VC’s may also work outside their own arena, helping companies to become investable and being involved in recently listed companies.

These statuses and respective modus operandi of a company can be illustrated in parallel of stages in a company development. The most common classification includes stages like idea, pre-seed, start-up, early growth, fast growth and maturity. Between each stage, the status to be reached represents a set of rules to be met, before the venture can advance to the next stage. For instance, rules and requirements of becoming investable have to be met, before the company can advance from start-up phase to growth phase, moving from V2C operating mode to VC operating mode. All four aspects – status, operating mode, development stage and barriers – are put together in the accompanying picture.
The purpose of this paper is first to briefly explain the key elements in operating models of the existing V2C operatives: Incubator, Business Angel, Advisor and Seed Capital VC, operating according to the so-called Classic VC model. After this, a variety of new operating models will be presented: eAccelerator, which is an elaborated model of traditional incubator; Source Code Finland, which resembles seed VC without using money; Virtual CEO, which – being a business angel without money - is almost an archetypical V2C operative; LINC Trial Marriage, which brought new incentives to Business Angels; and Venture Stables, which is a modest corporate venturing activity within a Tampere University of Technology.

TRADITIONAL V2C BUSINESS MODELS

Overview
In this chapter, we analyse the four existing categories of V2C players - Incubator, Business Angel, Advisor and Seed Capital VC – as we outline their business models. These four different operatives are by no means directly comparable, as their objectives are different. In many cases they complement each other in the field, instead of competing rigorously.2

The four categories are not an all-inclusive and complete taxonomy. This can be seen from variations inside each category as well as new emerging variations, some of which are presented in the next chapter. Nevertheless, in order to extend our understanding on future of V2C business models, we must first look at what we have had in this area for the past years.

Business Angel
Basically, a business angel is an individual (in contrast of a legal entity) with certain amount of personal wealth and business skills, and willingness to contribute some of these to embryonic companies. The wealth may come from many sources, ranging from own earlier successful entrepreneurship to having inherited a fortune. Due to differences among this group, there are taxonomies differentiating business angels in groups based on variables such as activity, available capital, average investment and focus group (Coveney & Moore 1998, Eriksson & Sørheim 2002, Gaston 1989, Sørheim & Landström 2001).

Accordingly, the amount of capital available to be invested as well as the business skills vary greatly; a successful executive may be willing to invest some of his hard-
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earned money to get more challenge to his life, bringing in most favourable case invaluable expertise to the company in his person. On the other hand, a well-off ex-entrepreneur may wish to invest some of the capital earned in the IPO of his company to assist other companies in their early stages. For this business angel, investments may be like bets, but his presence may still provide the company with much more than just money: Prestige, networks and credibility, to name a few examples.

Nevertheless, the business model of a business angel is quite simple: They invest money in early stage ventures, and in return they receive an equity stake, hoping to get their investment back with profit. Besides the “normative VC exit routes”, being trade sale and public listing, the profit scenario of a business angel includes also other alternatives, such as sellback to the entrepreneur, selling forward to other investors or keeping the stake and collecting dividends. Thus, the investment time span of an angel is relatively long.

To accomplish this goal, a typical business angel is willing to contribute some of his time to the company as well. This work tends to be non-operative, such as board work or screening for potential VC investors, but operative work is by no means exceptional: interacting or even being a member of the management team, assisting in marketing planning and implementation of the plan, lobbying for clients through own networks and so on. Only in rare cases is the angel paid for these services. The caveat is that it is not easy for the entrepreneur to know the value and quality of these services in beforehand. In other words: it is not easy to judge the quality of the business angel when looking at the investment proposal.

![Figure 2 Business Model of a Business Angel](image)

Simplified business model of a business angel can be seen in the above picture: In return for the equity stake given to the angel, the company receives capital investment and in most cases certain amount of advice and work, either consultative, operative or board work. As the angel is an individual, form of operation is informal and in a sense “unorganised”. Still, the commitment level is high and time span long due to the vested interest.

**Classic/Seed VC**

Classical VC model is the most traditional model of venture capital investment. Currently, the private equity market has shifted away from this model towards more capital-intensive later-stage investments, but it can be considered that the seed VC companies still operate according to this model. Also corporate venturing works this way in a sense; typically large and mid-size corporations have their funds for spinning off internally born business ideas, which do not quite fit their own core business but are still too valuable to be left unexploited.
Typical attributes in this model include long investment span, high upside potential and risk, immaturity of target company requiring lots of attention from the investor and relatively small amount of equity required. These factors – risk, attention, and small investment - bring in the effects of capital and skill gaps, repelling many mainstream VC players off the early stage companies (Rasila et al, 2002). Nevertheless, entering the target as early as possible should still bring most lucrative results in exit phase.

Figure 3 Classical Seed Venture Capital Business Model

The business model resembles the one of a business angel in many ways, but in this case the operative is a legal entity, being professional in the activity in question. Also the type of networks and advice brought in may be substantially different. Networks may be more formal and defined, and be international. Advice is in most cases limited to board work and assistance in special situations such as recruiting top executives, raising capital and crisis management.

Incubator

Principally, an incubator is an “office hotel” for fledgling companies. Office services are readily available and a variety of business development and support services are at hand easily. Apart from some government grants or subsidies for rent, incubators do not finance their tenants, but merely offer their services and office space for money. Thus, incubator as a concept is fairly straightforward, but in reality its incarnations come in many forms.

As Aernoudt defines it “a business incubator’s main goal is to produce successful firms that will leave the incubator financially viable and free-standing within a reasonable delay”. Yet, the same author presents a taxonomy with five different main categories of incubators, including technology incubators for overcoming entrepreneurial gap and regional development incubators, which are in most cases political operations, trying to create businesses and jobs in areas which are underdeveloped or undergoing a structural change. Furthermore, the operation may be either real or virtual incubator. All in all, it can be concluded that incubator is an umbrella concept (Aernoudt 2002).

Incubators themselves may be non-profit or for-profit organizations, but as pointed out by Paul A. Gompers in his recent lecture to US venture capitalists, most of the hundreds of for-profit incubators established in the US between 1999 and 2000 have had to close their doors. Reasons for this were seen to be limited experience of managers, too ambitious investment plans and adverse selection of companies, as the incubators only got the see the “bad deals”.

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Figure 4 Business Model of an Incubator

The incubator business model shows that services and facilities are given to the company for money. In some cases, some part of the services are offered for free or subsidized with governmental support. Financing is a key issue for many of the tenants, as the funding has to come from business angels and other seed financiers. Therefore, networking with these parties is crucial for the long-term success of incubator.

Overall, the time span of an incubator is medium-range and the organization is a legal entity. This gives possibility to building a good organization to support the ventures. Unfortunately in many cases the executives of the incubator do not have lots of business development skills. Furthermore, as there is no vested interest, i.e. long-term incentive such as equity stake neither for the executive or the incubator itself they may also lack commitment to the long-term success of the company.

Advisor
Advisors may be individual consultants or consultant companies. They offer various services for money: market research, exporting, writing business plan, and raising capital to name but a few. They are generally professional and entrepreneurial in what they do, delivering good quality advice for different situations. Naturally, actual results may vary as not all advisors are equal, and none of them is an expert in every issue facing a start-up venture.

Like incubators, they provide no funding but on the contrary require immediate monetary compensation for their services. Therefore, unless the target venture is backed up with excessive amount of “friendly money”, it has to find a source for financing. This, of course, can happen through an advisor offering this kind of services. Networks are crucial for the long-term success of an advisor, as they are often called in by other V2C players and vice versa.

Figure 5 Business Model of an Advisor
In general, the advisor provides the client with advice on a specific issue for money. Concentrating on one area of development, the approach is seldom holistic. Also, the work is short-term by nature, as it is usually project-based. Board work would give the advisor certain amount of long-term commitment and holistic view, but advisors are rarely seen in the board of their client companies. All in all, an advisor is a professional working with a client, not an owner looking after his possession.

Summary
There is a multitude of parameters we could use to compare the operatives presented above: means of compensation, degree of long-term commitment, availability and reachability, level of networking, scope of work, quality of skills and so on. Let us summarize some of these parameters to a table as done below:

Table 1 Brief Summary of Traditional V2C Operatives

<table>
<thead>
<tr>
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<th>Compensation</th>
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<td>Incubator</td>
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<td>Equity</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Long</td>
</tr>
</tbody>
</table>

From financing point-of-view, there are two completely opposing pairs within these four: business angel and seed VC, who bring money in, and incubator and advisor, who take it out. These pairs also differ in availability: incubators and advisors are more generally available, whereas business angels tend to keep out of sight, and both them and seed venture capitalists are a scarce resource to begin with.

Before making any deeper observations, let us look at the new, emerging models, some of which are close to existing ones while some of them are not.

EMERGING V2C BUSINESS MODELS

Overview
Someone has said: “The only stable and constant thing in the world is change”. So, how have the V2C players changed, or what kind of change is required from them to adjust to the changes happening around them, in their operating environment? We could approach this question by looking at the changes already happened: the operating models of new kind of V2C players.

In our Darwinian world, time will tell which one or ones of traditional and new models are the winning ones. New variations may pick features from several other models, adding something new, and try the combination out in the marketplace. In time, this acid test will show if the model is fit for life or not: if it serves the venture and economy in general, it is bound to succeed and have followers. This, of course, assumes a perfect world, competition and economy, but it is the best we can do.

In the following, five quite heterogeneous examples of these new operatives are presented. The selection of examples is based on the effort to make this presentation interesting and thought-provoking. As these five examples can hardly be a basis for
Traditional and Emerging Venture-to-Capital Business Models

taxonomy, a more ambitious “collection of specimen” is underway. Anyway, let us
now look at these five new operatives:
- eAccelerator, boosting fledgling companies with money and advisors
- Source Code Finland, investing “sweat capital” for equity compensation
- Virtual CEO, a business angel who does not invest money but time
- Trial Marriage of LINC Scotland business angel network, overcoming the
  constraints of the informal VC market
- University Venture Stables, giving innovations a free push within the
  university

eAccelerator

eAccelerator is one of the six programs of eTampere, which is an umbrella project
promoting e-business, e-society and new economy in many forms in Tampere region
in Finland. The heart of the region is the second biggest city in Finland, where brick-
and-mortar industries have traditionally been dominant. The transformation to new
economic basis has been quite successful, though, compensating to large extent the
loss of jobs in heavy industries, textile mills and shoe factories.

The city has been actively involved in many actions and organizations supporting this
positive development, and one the most recent initiatives is eAccelerator. It is
operated by a leading business development agency in Tampere region, Hermia
Business Development, which has been working closely together with the Hermia
Science Park and adjacent Tampere University of Technology.

Companies are screened in normal manner with public funding, but also by use of a
business plan competition, trying to promote entrepreneurship. Contracts with
accepted companies are tailored from case to case, with variable time span,
deliverables and compensation method. In addition to various business development
services by Hermia Business Development, ranging from patent consulting and
market research to improving the business plan and raising capital, the deliverables
may include certain amount of investment. The investment is not intended to cover
operative costs such as marketing or product development, and is too small for these
activities in the first place anyway. Instead, it is to be used to cover up direct costs of
the business development project such as use of other experts or patenting, according
to the guidelines agreed in the contract in beforehand.

Method of compensation is preferably money, but success fee or equity can be used as
well. Payback is not immediate, but triggered by set milestones, such as VC funding
or major sales deals. Payback may also be conditional, which brings more risk and
incentive to the scheme. So far (November 2002) more than ten companies have been
accepted to the fairly active program, and the results have been promising.
eAccelerator business model is a mixture of business angel, advisor and seed VC, which is natural since its operation has features from all of these players as well. Business angel would give more money and only accept shares in return. Investment of a seed VC would be much less consulting-intensive and concentrate on the capital injection instead, while advisor might give the same amount of consulting but not accept conditional or equity payback. Depending on the assignment, time span may range from short to long. It tends to be in the longer end and definitely is if there is vested interest in the form of equity, success fee being usually a medium range incentive.

Source Code Finland
Source Code Finland resembles eAccelerator in many ways: It has a professional organization and fairly fixed time span, making work-intensive investments to existing companies. On the other hand, it explicitly prefers equity to monetary payment as compensation for the services. Also, they only invest their own time, “sweat capital” as quoted by their executive in an interview, and do not provide any capital for paying services of other advisors. So far (November 2002) they have screened 105 companies but not made an “investment” yet – therefore the success of the model is yet to be seen.

The business model of Source Code Finland is fairly similar with the one of business angel, but unlike in the case with an angel there is no capital investment towards the company. Instead, one of the defined functions of this V2C player is to guide the target venture to venture capital round one, and presumably exit at round two or later, adding value to the company at each phase. Time span is planned to be in the range of two years from entry to exit, which can be considered fairly long-term interest. And after all, there is vested interest in the form of shares, which only bring profit to the V2C player if the venture is successful.
Virtual CEO
The Virtual CEO is a rather “unofficial” and informal concept presented by Randy Komisar, when he describes his own work in semi-fictional autobiography “The Monk and the Riddle” (Komisar 2001). Yet, as there are other individuals working according to the same model, it deserves a place in our analysis for V2C taxonomy.

To put it simply, Virtual CEO is a business angel without money. He possesses such skills and networks, that the entrepreneur or founders of a new venture are willing to give him a stake in the company, knowing that he in turn will contribute his time and knowledge for developing the company. Upside potential gives incentive to the Virtual CEO, and it is easy to imagine that this is a win-win game.

![Figure 8 Business Model of Virtual CEO](image)

The business model looks very much like the one of a business angel, except that money has been removed from the equation. We also get this model by replacing “money” with “shares” in the advisor model. And finally, we should note that the model is exactly the same as the Source Code Finland model presented above, just that in this case we are dealing with a private individual, not a legal entity.

Trial Marriage
It is by now clear that when talking about the mismatch between early-stage ventures and early-stage financiers, we must look at the problem from both ends. It is true that the supply side in the (informal) venture capital market has problems, having shifted to later stage companies and sometimes posing unrealistic expectations to entrepreneurs with little to give back other than money. On the other hand, the demand side is not perfect either; new ventures are far from being ready for investment, and the screening process takes time from the potential investors especially when the target is still unorganised, working ad hoc day to day.

To intrigue business angels in exploring ventures, which seem to be interesting but need work, the Trial Marriage program was created. The program was partially funded European Union and operated by LINC Scotland, one of the eldest and most active business angel networks in the UK. Quite simply, the idea of the program was to make the angel work for the company as a consultant for up to 15 days, after which he could then make the investment decision. If the decision would be positive, support would be paid back to the program. In case of negative decision, the company would have enjoyed for 15 days of subsidized consulting (Mason & Harrison, 2002).

The program was active in 1998-99 and is being re-launched at the time or writing of this paper. Most substantial differences are that a slightly raised amount of support is...
Traditional and Emerging Venture-to-Capital Business Models

paid to the company instead of an investor, and that in case of an angel investment the grant can be converted to equity, giving upside potential to the income. This is seen by LINC Scotland as an important alternative for funding the program, which is initially heavily dependent on public funding.

![Figure 9 Business Model of Trial Marriage of LINC Scotland](image)

In this business model we have three parties and two phases. First, when a suitable candidate is found and accepted to the program, a business angel starts working with the company, using up to 15 days of time to inspect and evaluate the venture, and consulting the entrepreneur and resolving open issues in due course. For this work, the angel – or angel syndicate for that matter - receives money, which would be too low for a professional consultant but is enough for the angel, for whom this is not the source of daily income but more of general interest. The second phase is conditional: If a positive investment decision is made, the grant is returned to the program.

The model is fairly cost-effective, especially when we note that five of six target companies eventually got invested in. Thus, most of the money was returned back to the program. The organization of the Trial Program could be described to be non-professional yet bureaucratic, due to the involvement of many parties and European Union funding. Finally, when time span is considered, the program itself is short-term activity, but the work has potential for long-term effect as business angels get involved with and committed to the target ventures.

**Venture Stables**

Like corporations foster the ideas born within their organizations through corporate venturing, some universities have established means to promote the innovations brought up by their students or staff members. This is appreciable activity with lots of potential. After all, there are many innovations in universities but the lack of entrepreneurial spirit may hinder exploiting them in practice. Supporting ideas and entrepreneurship also contributes to the job satisfaction of the staff.

One example of “University Venturing” can be found in Tampere University of Technology, which has a program called *Yritystallit* or “Venture Stables”. When students or staff of the university have a business idea or an innovation, they can apply for the program. If accepted, university will give premises, computers and phone first for one year, with an option for second year if the venture seems to be making progress. Additionally, since especially students might be unwilling to part from the scarce amount of money intended to be used for living while studying, the university will cover up to €7000 of expenses in expert services, such as market
research, patenting costs etc. The stable also takes advantage of the more traditional innovation and patenting service present at the university.

Venture Stables is in a sense a “virtual organization”, as the premises are not all in the same place but usually assigned at the faculty where the idea originates in order to help the daily work of the embryonic entrepreneurs. Furthermore, there is no full-time staff, as managing the screening process and supporting the ventures is outsourced to a business development company working closely with the university.

![Figure 10 Business Model of Venture Stables of Tampere University of Technology](image)

The operating model has something in common with incubator, advisor and seed VC, yet the profit model seems to come straight from the Red Cross: the venture stables expect no money back from the venture nor are they requesting and equity stake in it. Not that the university would be capable to accept shares in compensation of money or services for that matter – local legislation prohibits this. For this reason, the activity could be described as “strategic charity work”, with internal job satisfaction, welfare of the society and goodwill in general as ultimate goals. The organization is practically non-existent and the time span is mid-range.

**Summary**

Again, we summarize some of the key features of the V2C operators in a table below. Apart from the non-profit Venture Stables, compensation method seems to be falling more and more on the equity side, and time span is long. It could be argued, that professional organizations such as Source Code Finland and eAccelerator are not bureaucratic but entrepreneurial, based on their success-based incentives.

**Table 2 Brief Summary of New and Emerging V2C Operatives**

<table>
<thead>
<tr>
<th></th>
<th>Compensation</th>
<th>Organization</th>
<th>Working model</th>
<th>Time span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Code F.</td>
<td>Equity</td>
<td>Professional</td>
<td>Bureaucratic (?)</td>
<td>Long</td>
</tr>
<tr>
<td>eAccelerator</td>
<td>Money/Equity</td>
<td>Professional</td>
<td>Bureaucratic (?)</td>
<td>Long</td>
</tr>
<tr>
<td>Virtual CEO</td>
<td>Equity</td>
<td>Hobbyist</td>
<td>Entrepreneurial</td>
<td>Long</td>
</tr>
<tr>
<td>Trial Marriage</td>
<td>Money/Equity</td>
<td>Hobbyist</td>
<td>Bureaucratic</td>
<td>Short&gt;Long</td>
</tr>
<tr>
<td>Venture Stables</td>
<td>Goodwill</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Let us no go forward to comparing all presented models together and trying to analyze our findings so far. Based on these findings, an effort will be made to tentatively outline a “best practice”, as it is still too early to speak about delineating any normative V2C player in this context.
DISCUSSION AND CONCLUSIONS

In this study, four traditional and five new operatives were examined and their business models outlined. In this chapter, these business models are analyzed and their strategy logic summarized, trying to build understanding of system logic of V2C area. An effort will then be made to sketch the “best practice” operating model of a new kind of V2C operative.

When comparing the traditional and new business models, four observations are made as conclusions. First of all, new models are hybrids of traditional models with some new features being tried out in each case. Being a business angel without money or making non-profit corporate venturing inside a university is a new variation of an old scheme, and time will tell if the variation is successful. If it is, it will stay and have followers, like any other business found profitable. What are the sustainable key success factors is the question.

Secondly, contributing intellectual capital in the sense of “sweat capital” or business knowledge is seen as a key requisite. Current venture capital industry has enough funds to give it to those in need, but has shifted away from the early stage companies in both minimum size of investment as well as expertise. This is among others due to the fact that venture capital activity is not scalable, when more money is poured in, the number of VC partners and their combined expertise should grow accordingly. This has not happened, thus creating a need for the V2C industry to step in to fill the skill – or competence – gap.

Furthermore, to make the V2C work as efficient as possible, there should be possibility for an optimal V2C player to invest also money. Otherwise, the financial difficulties and raising capital will hinder the development speed, which in many cases is crucial. This could be imagined to be own money or a fund managed by the player, or even “outsourced” to a sturdy network of business angels, even though partnership-like fund as with most VC funds would be most flexible and therefore most viable option.

Finally, it can be seen that the trend goes towards obtaining equity interest in the target company. This has several advantages. First, new venture has many shares to give, but no money with which to pay. Second, the upside potential is highly motivating to the V2C party – at least as long as the venture looks promising. Third, sharing ownership spells long range commitment to both parties in question. Naturally, like all coins this has two faces, too: Being paid in equity introduces need for operating capital and major business risk to the V2C player. And in the case of a successful exit, it is the most expensive way of payment for the entrepreneur – who in the end of the day may still be on the receiving side of it.

The following table summarizes the key parameters of V2C business models. It combines the two tables presented before, adding a hypothetical V2C player in the end of the list presented. The parameters of this “best practice” V2C player are discussed in the following.
Traditionally and Emerging Venture-to-Capital Business Models

Table 3 Summary of Traditional and Emerging V2C Operatives

<table>
<thead>
<tr>
<th>V2C Operative</th>
<th>Compensation</th>
<th>Organization</th>
<th>Working model</th>
<th>Time span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubator</td>
<td>Money</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Medium</td>
</tr>
<tr>
<td>Advisor</td>
<td>Money</td>
<td>Professional</td>
<td>Entrepreneurial</td>
<td>Short</td>
</tr>
<tr>
<td>Business Angel</td>
<td>Equity</td>
<td>Professional</td>
<td>Entrepreneurial</td>
<td>Long</td>
</tr>
<tr>
<td>Seed VC</td>
<td>Equity</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Long</td>
</tr>
<tr>
<td>Source Code F.</td>
<td>Equity</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Long</td>
</tr>
<tr>
<td>eAccelerator</td>
<td>Money/Equity</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Long</td>
</tr>
<tr>
<td>Virtual CEO</td>
<td>Equity</td>
<td>Professional</td>
<td>Entrepreneurial</td>
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</tr>
<tr>
<td>Trial Marriage</td>
<td>Equity</td>
<td>Hobbyist</td>
<td>Bureaucratic</td>
<td>Short</td>
</tr>
<tr>
<td>Venture Stables</td>
<td>Goodwill</td>
<td>Professional</td>
<td>Bureaucratic</td>
<td>Medium</td>
</tr>
<tr>
<td>“V2C Operative”</td>
<td>Equity</td>
<td>Professional</td>
<td>Entrepreneurial</td>
<td>Long</td>
</tr>
</tbody>
</table>

Probably the most crucial notions from the point of the target venture are the quality and level of services given, and true long-term commitment to the development and success. These requirements speak first of all for a professional organization, developed over time of seasoned, committed experts. Additionally, the requirement of long-term commitment to success of target ventures strongly suggests, that there has to be vested interest in the company.

This commitment can be realized in form of success fees, but the most intriguing alternative to all parties is equity, bringing longest and strongest ties and highest upside potential. Furthermore, this equity incentive should preferably be extended to the individual executives of the V2C player to promote entrepreneurial attitude to the business development done in the target companies. The V2C player could also be a partnership like VC partnerships of today, with part of the success flowing back to the partners doing the actual work.

As was noted earlier, the optimal V2C player has capacity to invest seed capital to the target venture. Again, looking at the current de facto venture capital partnership we find a model which can be copied or used as an example. This fund should be big enough to avoid parsimony, but allow also small investment with long time span and high risk. The managing V2C player should have control over it to avoid bureaucracy and to genuinely take responsibility of its profitability. It can be argued, that we are talking about shooting in the wind and hoping to hit something. This approach may still do better than screening the companies too tightly, rejecting most proposals and then giving even the most promising companies just peanuts, asking them to “prove their business case” with this investment which is too small to begin with.

To summarize, the optimal V2C company should have ample amount of dedicated experts at its disposal, either own staff or from a network built for this purpose. It should be able to direct capital investments to the target venture, to accelerate the initial growth of the company. Both the executives working with the company and the V2C player itself should be tied to the target with vested interest. This commitment could best be done in the form of equity stake, releasing the venture from the burden of having to pay for business development services and thus freeing the funds to be
targeted to other pro-active activities such as product development, organizational development, sales and marketing. And finally, if the executives would be partners in this delineated V2C player, they would have the ambition, entrepreneurship and team spirit needed to work successfully with their target companies, which would – in many ways – resemble their own partnership.

It is not the purpose of this paper to reach decisive conclusions about preferred methods of V2C work, or to build a complete model and taxonomy for the V2C players. Rather, the aim is to open up discussion and pave way to future research on the issue: What things have changed during the existence of the traditional V2C players? What do these changes require from V2C players? What are the most prominent success factors of V2C players for themselves and their target ventures? And ultimately: What would be the winning V2C business model?

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eAccelerator, Pekka Jussila. 11.11.2002 and 19.12.2002

Venture Stables (Yritystallit), Juha Kiljunen. 11.11.2002

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1 Naturally, there are other alternatives – deciding to do without the investment, getting acquired and so on – but as these are not in the scope of this paper we will concentrate on our simplified model.

2 Could it be that the V2C operatives see that a newly-hatched company is too weak to withstand its aides to compete against each other?

3 Including the first author of this paper.
From Capital Investors to Knowledge Investors: The Rise of Entrepreneurial Venture-to-Capital

Richard Harrison, Hannu Jungman and Marko Seppä


INTRODUCTION

Filling the gaps between venture and capital

The importance of growth-oriented entrepreneurial companies to economic development and job creation is unarguable. However, the full growth potential of these ventures can rarely be realised without access to external resources. Classically, the providers of external resources, the enablers, have been labelled venture capitalists, either formal or informal venture capital investors. Brophy (1986) has argued that it is unlikely that a country or a region can be competitive without a dynamic and vibrant venture capital (VC) community. In fact, investors who decide on behalf of society at large which new ventures are to go forward, and which not, play an almost godlike role in an economy.

The supply of venture capital – and the size of an average VC fund and, hence, the amount of a minimum investment – soared towards the end of second millennium in both the US and Europe. Even after the downturn in venture capital investing after 2000, there are two key notable developments in VC activity. First, new business ideas are increasingly more knowledge intensive, driven in part by the application of ICT as an enabling technology across industrial sectors. Outside the Venture-to-Capital context Eliasson and Eliasson (1996) have discussed the idea of competence blocks and pointed to the shift in industrial organisation in a similar way.

Second, because the average size of venture capital fund has increased more rapidly than the number of venture capital investment executives, and although there is more venture capital financing available than ever before, it is not offered in small enough doses to meet the needs of many start-up and early stage companies. In Finland, the average size of seed stage investment has risen from 85 000 € in 1997 to the peak of 450 000 € in 2001 and still remaining at 250 000 € in 2003 (FVCA 2004); the formal venture capital industry has moved towards larger and later-stage investments. This trend is well-documented (see e.g. Bygrave and Timmons 1992, Sohl 1999, Murray 1999, Seppä 2000).

The two phenomena have resulted in a Knowledge Gap between prospective entrepreneurial ventures and the venture capital industry. A variety of players is now bridging the gap between entrepreneurs and venture capitalists. The actors refining prospective ventures to make them “investable”, in the eyes of venture capital industry, include incubators, advisors, business angels, corporate venturers and seed venture capitalists. These players are referred to as Venture-to-Capital or V2C actors. These partly new type of actors are filling the gap between venture and capital by bringing in the knowledge needed in growth ventures. (Seppä and Näsi 2001,
From Capital Investors to Knowledge Investors

Jungman, Kankaala, Rasila and Seppä 2004a, Jungman, Okkonen, Rasila and Seppä 2004b, Rasila 2004) However, very little do we know about the nature, priorities, and operating models of these new knowledge investors in the context of the operation of the early stage entrepreneurial capital market as a whole. A classification of capital vs. knowledge intensive entrepreneurial investors is presented in Figure 1. Horizontal axis illustrates the perceived relative portion of an investor’s knowledge vs. capital (brains vs. cash) investment.

![Figure 1 Knowledge-intensity of formal vs. informal investors](image)

With the general rise of ICT enabled – and enforced – business models and concepts and, consequently, the transformation from capital intensive to knowledge intensive new venture activity, the godlike role in an economy referred to above may be shifting from those who invest (venture) capital to those who invest knowledge in ambitious entrepreneurial ventures to render them ”investable” in the eyes of the venture capital industry. In the language of this study: In the knowledge society, the role of the enabling investor is shifting from venture capital to V2C investors.

**RESEARCH MISSION AND STRATEGY**

The target of this study is to shed some light on the nature of the typical entrepreneurial knowledge intensive V2C investor in Finland. This will, especially, be done in three selected dimensions of entrepreneurial orientation (EO): innovativeness, risk taking, and proactiveness (see e.g. Lumpkin and Dess 1996, Lindsay 2004). V2C activity will be seen as an entrepreneurial process. Further, as the V2C actors have emerged to act as a bridge between ventures and venture capital, it is important to know what the relationship between the V2C and the venture capital actors is. Hence, the paper will also discuss the complementarities between venture capital and V2C activity and identify opportunities for further collaboration especially in the light of sequential investing and co-investing.

The first task is to construct a guiding framework based on earlier research on V2C activity, on private equity investor’s EO, and on complementarities between venture capital and V2C. At the moment, our knowledge of these phenomena is very limited. Hence, also this research is mainly exploratory by nature.

When designing the research approach for the present study, based on the authors’ initial understanding of the issues at hand, a pattern of interview questions was constructed. Empirical data was gathered via semi-structured interviews conducted
From Capital Investors to Knowledge Investors

with seven formal and seven informal Finnish V2C investors. The ultimate aim of the study is to construct one concluding proposition for a new theoretical framework to increase our understanding of V2C activity as entrepreneurial ownership profession, and complementarities between V2C and other stakeholders – especially venture capitalists – of the growth company process.

THEORETICAL FRAMEWORK

V2C actors as entrepreneurs

There are only few studies that have made the difference between entrepreneurial and non-entrepreneurial early stage investors. A notable one is Landström’s (1998) study on “Informal Investors as Entrepreneurs” (for earlier insights, see Seppä et al. 1992). Landström (1998) looks early stage investing as an entrepreneurial process, not as a financial phenomenon. He argues for example that informal investors want to be able to influence the future development of the firm, they trust their personal network as source of and assessing for investment proposals, and they put importance on trust and personal chemistry between the investor and entrepreneur. He goes as far as calling the informal investor “co-creator” and the actual entrepreneur as “co-entrepreneur”.

Another way to see V2C actors as entrepreneurs is through EO theory. Herein, “an EO refers to the processes, practices and decision-making activities that lead to new entry” (Lumpkin and Dess 1996). New entry can be for example, the act of launching a new venture. The dimensions of EO have been developed over the last two decades and they include at least 1) Proactiveness, 2) Innovativeness, and 3) Risk taking (Miller 1983, Covin and Slevin 1989, Lumpkin and Dess 1996). Lumpkin and Dess (1996) also included two more dimensions, which aren’t necessarily been adopted by others (Lindsay 2004): 4) Autonomy, and 5) Competitive aggressiveness. They also theoretically proved that all of these five dimensions may vary independently in given conditions (Lumpkin and Dess 1996). Hence, they may also be studied as independent factors.

Lindsay (2004) extended the theory of EO-performance relationship to business angels. He tested 4 hypotheses with measures for EO and investment performance on 79 respondents. The results showed that business angels have an EO, and there is an EO-investment performance relationship. He adopted the definitions for proactiveness, innovativeness and risk taking from Lumpkin and Dess (1996). The same definitions are also used for this study. Herein, “risk taking involves a tendency to take bold actions, such as venturing into unknown new markets, committing a large portion of resources to firms with uncertain outcomes, and/or borrowing heavily” (Lindsay 2004). As V2C investors, by definition, are expected to invest relatively more knowledge (hands-on involvement, etc.) than capital in their target ventures, they are also expected to have the opportunity to steer their investments more closely (than venture capitalists), in other words, show proactiveness. The nature of their investment grants them relatively more post-investment risk control and therefore they are expected to accept relatively more risk at the time of initial investment. (Jungman and Seppä 2004, Van Osnabrugge 1999)

In fact, the type of risk V2C actors are willing to take resembles that of the entrepreneur. “Proactiveness is an opportunity-seeking, forward-looking perspective that involves introducing new products/services and acting in anticipation of future
From Capital Investors to Knowledge Investors

demand” (Lindsay 2004). In the present study, proactiveness is measured especially as involvement in investee management. In relative terms, when compared with venture capitalists, V2C actors are likely to be more proactive owners who are involved in operational management and try to initiate change rather than to react on events as members of the board. This is also presumed to show, as mentioned above, in the relative amount of invested financial capital vs. knowledge capital. Proactiveness is also expected to show in sources of deal flow. According to Lindsay (2004), EO shows in leveraging of informal networks (friends, associates, media, etc.). Innovativeness refers to a “basic willingness to depart from existing technologies or practices and venture beyond the current state of the art” (Lumpkin and Dess 1996). The core of V2C activity lies in knowledge investment. Hence, in this study, special attention is given to innovativeness in the V2C business model, the vehicle to invest knowledge.

**Complementarities between VC and V2C**
The research on complementarities between formal and informal venture capital markets has been very limited. Further, the formal and informal venture capital markets have very often been viewed as separate. (Harrison and Mason 2000) Instead, Harrison and Mason (ibid.) suggest that “research should move from consideration solely of the actors in the market to the analysis of the market itself and its operation”. The business angel market – and therefore the whole V2C market – should be viewed as a part of capital market. One such attempt is the growth company process illustrated in Figure 2. It does not only show the vitality of V2C and venture capital working together to build successful ventures, but also emphasises the role of government in the capital market. This kind of framework of thinking could lead to improvements in both venture capital and V2C activity and, herein, contribute to the development of new ventures.

![Figure 2 The growth company process (Jungman et al. 2004a)](attachment:image)

Jungman et al. (2004b) suggest that the illustrated chain thinking should show in the ownership development of the venture. In fact, we argue that V2C activity should be developed as an ownership or a “principal’s” profession, and venture capitalist’s entry should provide at least a partial exit to the V2C actor to symbolise the pass of the baton in the growth company process (cf. Benjamin and Margulis 1996). Aligning of the interests of the entrepreneur, the V2C actor and the VC actor – linking all of their primary profiting to the final exit of the venture capitalist – would also increase the supply of high quality ventures to venture capitalists.
Harrison and Mason (2000) name four types of complementarities between venture capital and business angels: sequential investing, co-investing, provision of funds, and deal referral. Of these, sequential investing is probably the most obvious and was already referred to in the previous paragraph. The existence of this kind of complementarity in the US has been well-documented. However, it is unclear whether this occurs outside the US. There is also strong evidence that business angels co-invest alongside venture capital funds in the US. Further, they often provide technology or entrepreneurial experience to assist in the due diligence and post-investment control. (Ibid.) Again, it is not clear how many Finnish venture capitalists and business angels made investments of this type. However, there are statistics that show Finnish business angels investing into venture capital funds: The peak-year of private persons’ investments in venture capital funds i.e. provision of funds in Finland was 1999 amounting total of 28 M€; before and since that (1998–2002) the amount has varied between 7 and 9 M€ (FVCA 2004). Deal referral is defined as “the informal networking of deals and deal flow between business angels and VC firms” (Harrison and Mason 2000).

In this study, we harness this framework of complementarities even to broader purpose: To study the complementarities between venture capital and V2C, and yet further, to understand the complementarities in the whole growth company process.

DATA AND METHODOLOGY

To investigate the emerging group of entrepreneurial knowledge investors, a qualitative study of the nature and investment process of V2C investors was undertaken. This exploratory study presents results from 14 interviews with formal and informal entrepreneurial V2C investors in Finland. In total, seven formal V2C investors (full-time based and/or incorporated partnerships) and seven informal V2C investors (part-time based and/or individual solo operations) were interviewed in Finland in April, 2004. According to the underlying theoretical framework only the activity of the interviewees related to taking capital and/or knowledge investment based ownership positions in target ventures was under investigation. Resulting from the interviews, one of the formal V2C investors was excluded from the final sample, due to non-entrepreneurial status in investment decision-making. Hence, the final sample comprised six formal V2C investors and seven informal V2C investors. Of the formal V2C investors three were classified in the category of seed venture capitalists, two in the category of advisors, and one in the category of incubators. All of the informal V2C investors were classified as business angels. However, the range of knowledge-intensity in the investment activity of the business angels interviewed was extremely varied; from almost zero capital investment to only marginal knowledge investment.

To secure comparative research data, a structured interview exercise was undertaken. In order to check the interview form, it was tested with one knowledge investor known to the researchers. The test led to light changes in the framing of the questions. The interviews were recorded and the formal sessions lasted for an average of 45–60 minutes. The interview process comprised both qualitative and quantitative questions, and an open space section. The interviews were followed by quantitative and qualitative analysis of the interview data.
RESULTS
In general, the risk, decision making and earning model of V2C actors seem to resemble the ones of entrepreneurs. There also seems to be a willingness to work in a closer co-operation with venture capitalists. In Table 1 are presented some quotations from the interviews. Below the three selected dimensions of EO and the possible complementarities between venture capitalists and V2C actors are discussed in more detail.

Table 1 Quotations from the interviews

<table>
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<th>Proactiveness</th>
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<tr>
<td>“I invest my time, not money.”</td>
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<tr>
<td>“I go there to build strategic alliances and partnerships.”</td>
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<tr>
<td>“The existing strategic alliances and partnerships are not important; those will be made if necessary… make it investment ready for capital investors.”</td>
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<td>“Very often I work as a procurer or midwife between ventures and potential owners.”</td>
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<td>“If I feel that I don’t posses any relevant knowledge I will stay out of it.”</td>
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<th>Innovativeness</th>
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<td>“…knowledge should be structured so that it’s worth money and even more than money. The most precious thing that you can give to a venture is your time. There should be a way of selling your knowledge”</td>
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<td>“In my concept, I invest my knowledge and I need to get paid in one way or another… by investing I’m in the same boat with the entrepreneur.”</td>
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<td>“It is healthy for companies to pay for knowledge… it seems that they are not willing to do so.”</td>
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<tr>
<th>Risk taking</th>
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<td>“… venture capital and investments made by government are not personal risk taking and are in different position than informal investors as they don’t invest their own money but have collected it from somewhere else.”</td>
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<td>“Return potential is more important [than risk control], especially when talking about sweat capital investments. The more [financial] capital is involved, the more the weight of risk control perspective will increase; in other words, the already well-earned money is not willingly lost.”</td>
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<td>“You have been too risk-averse if you don’t get financial losses from time to time.”</td>
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<tr>
<th>Complementarities</th>
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<tr>
<td>“Syndication in a way that a business angel invests money, but doesn’t take an active role [in a company], and accepts that we get the same share of ownership without matching financial investment, and knows that we will make work to the venture.”</td>
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<tr>
<td>“We can acquire second-round financing to the ventures – not necessarily from our own fund, but from other investors… our task is to make it [the venture] look like a company to get it to a growth path.”</td>
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<tr>
<td>“Our skill is to get the capital investor in there [to the venture].”</td>
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<tr>
<td>“There should be an easy way for business angels to become owners in ventures and to make an exit possible at the time of the next financing round. This way we could accelerate the circulation of money; a person like this could make a new investment to somewhere else.”</td>
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<tr>
<td>“The entrepreneur expects to get much more knowledge or sweat capital from the venture capitalists than he/she actually gets, because a) there is no knowledge and b) there is no time.”</td>
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V2C actors as entrepreneurs

“A lonely wolf is a poor predator.” (Informal V2C investor interviewed)

Many of the interviewed V2C actors expressed their willingness to work in close co-operation with the founders; they even feel that they are “in the same boat with the entrepreneur”. This is further testified by the fact that nine of the interviewees rate the
team as the most important selection criteria. The remaining four rate the team as the second most important selection criteria after market expectations (3) or product features (1).

Of team skills, seed venture capitalists seem to value track record, capabilities and skills, whereas other V2C actors value softer characteristics such as enthusiasm, commitment and attitude. All investors seem to emphasise market growth rate, but in addition, capital intensive seed venture capitalists seem to weight the competitive situation in the market to the same extent. Out of the deal characteristics for informal V2C investors, advisors and incubators, the most important appears to be their own “involvement in business development”, whereas seed venture capitalists weight syndication and their own status as lead vs. co-investors. These findings further support our thinking that knowledge intensive V2C actors are after someone to work with – and emphasise shareholder chemistry, whereas more capital intensive seed venture capitalists are more after someone to make money with.

From the results of this study, it is likely that V2C actors show high amount of proactiveness. They seem to value their own activity and informal networks as sources of deal flow. Only two of the interviewed V2C actors perceived that they invest more capital than knowledge. The interviewees also heavily expressed their non-financial contribution in the investee companies; going as far as refusing from the opportunity if they felt that money is only aid they can give. Many of them also highlighted their skill to acquire venture capital.

Most of the interviewees ponder upon the same question: How to get paid for investing knowledge? They are willing to look for new innovative operating models to tackle this problem. These findings also indicate that there is a need to better assess the complementarities between venture capitalists and V2C actors. The options they offered to investee companies included delayed payments, loans without securities, and payments based on the profits of the investee.

There seems to be a strong correlation between Risk taking and knowledge intensity of the investment; the higher the knowledge intensity the higher the possibility that V2C actor weights return potential over risk control in other words is willing take relatively more risk. The risk taken is in the personal level – V2C actors are typically investing their own time and money unlike most of the government schemes and venture capitalists. Also in this sense V2C actors resemble entrepreneurs.

When analysing the deal flow and investments from the past year we found that formal investors typically made one investment per 50 proposed deals, whereas, informal investors typically made one investment per 10-15 proposed deals. This indicates that formal investors put more weight on pre-investment activity than informal investors. Further, V2C actors with high relative knowledge intensity tend to look for deals where they can be involved in business development; this also indicates the relative importance of post-investment activity as risk control mechanism. Seed venture capitalists, on the other hand, seem to weight the pre-investment related characteristics of the deal.
From Capital Investors to Knowledge Investors

Complementarities between VC and V2C
Some of the interviewed V2C actors had already established a strong co-operation with venture capitalists. All the four forms of complementarities were employed by the interviewees, but form was heavily affected by the amount of investible capital. Most of the interviewees had venture capitalists in their networks and also deal referral existed. As mentioned above, many of V2C actors said their strength to be in acquiring venture capital; a clear sign of sequential investing. Also co-investing existed in a very developed form – at least in the level of an idea: venture capitalists invest the money and V2C actors the knowledge.

CONCLUSIONS
“During the last couple of years we have, indeed, clearly transformed from a capital investor to a knowledge investor.”
(Formal V2C investor interviewed)

Due to the nature of the present study, the investigation is not amenable to generalisations. However, we find convincing, case-based support for the V2C argument – that those who primarily invest knowledge are rising to challenge the role of those who primarily invest capital as key enablers of economy. This is not to suggest that knowledge investors are about to replace capital investors, quite the contrary. Knowledge investments without capital investments to follow would often be as useless as ever before. Instead, knowledge investors may be emerging as the factor that makes the difference for the success of capital investors. What we see here is an emergence of a new profession (that of V2C actor, knowledge investor, co-entrepreneur, professional entrepreneur, professional owner, or venture knowledge). Although not irrefutably proven here, the above notion is in full conformity with the general perception related to knowledge society development, that value is increasingly created by chains, if not networks, of companies, rather than individual players.

This paper has been one of the first attempts to look at the complementarities between V2C actors and venture capitalists using Finland as the case environment. We found that increased collaboration and profit partnering between entrepreneurs (V), knowledge (V2C) and capital (VC) investors, and government is called for. However, before the full potential of cooperation can be realised, there are questions to be answered, two of the foremost being the issue of valuing invested knowledge and sweat capital, and providing sufficient exit routes for V2C actors. Needless to say, further research especially on these issues is needed.

The implications of this study will mostly benefit entrepreneurs in search of V2C services and financing, and policy makers in search of new ways to enhance the creation of new businesses. However, it will also benefit V2C actors and venture capitalists by increasing the understanding of each other’s business dynamics as well as researchers studying the phenomena at hand.

REFERENCES
From Capital Investors to Knowledge Investors


From Capital Investors to Knowledge Investors


Investment Decision Criteria Used by V2C Investors

Hannu Jungman and Marko Seppä

This paper was presented at the Babson Kauffman 2004 Conference in Glasgow, Scotland, 20-22 July, 2004.

INTRODUCTION

The importance of growth-oriented entrepreneurial companies to economic wealth and job creation is unarguable. However, by definition, the full growth potential of most of these companies cannot be realised without venture capital investors, either formal or informal. Hence the importance of the likes of venture capitalists and business angels to economic wealth creation is likewise unarguable. Research on growth companies has largely centred around the venture capital (VC) process – fund raising, entering, value adding, and exiting – since the seminal work by Tyebjee and Bruno (1981, 1984), Bygrave and Timmons (1984), and MacMillan et al. (1985).

Due to the high risk related to especially ambitious early stage companies, such firms often have difficulties in obtaining funding from the traditional financial, lending-based sources. Fortunately, there are private equity investors – venture capitalists and business angels – who are willing to share the entrepreneurial risk, but also participate in controlling the risk as active owners or, in some cases, co-entrepreneurs. There are never too many ambitious, growth-oriented entrepreneurs in an economy. However, in many economies, such as Finland, the shortage of investors to match is far more critical and greater, and the cry for more VC entering activity is loud and clear (Arenius et al. 2001, Arenius and Autio 2004, Stuart et al. 2003).

In the words of Brophy (1986) it is unlikely that a country or a region can be competitive without a dynamic and vibrant venture capital community. In fact, investors who decide on behalf of society at large which new ventures are to go forward, and which not, play an almost godlike role in an economy. Classically, as pointed by Brophy (1986) this role has belonged to venture capital investors who build “investable” entrepreneurial ventures “listable” in the eyes of the capital market. Indeed, the imperatives for more investors to engage in entering include a functioning capital market and realistic expectations for profitable exiting.

According to the basic observations that triggered this research, growth in the supply of venture capital financing, on the one hand, and growth in the supply of ventures seeking for financing, on the other hand, resulted in a paradox during the go-go years of 1995-2000. While the average size of a venture capital fund and, hence, the size of a minimum investment grew exponentially, ventures seeking for financing transformed, at the same time, from capital intensive to increasingly knowledge (hands-on) intensive. While for once there is no shortage of capital, paradoxically, there is a shortage of small enough doses of it, as already noted as a potential future concern in the landmark book by Bygrave and Timmons (1992). As a result, besides the classic equity gap, a knowledge gap also seems to have opened up between new venture activity and the venture capital industry. (Rasila et al. 2002)
This development has given rise to a new breed of investors operating between ventures and (venture) capital with the mission of bridging the gaps. Investors who, instead of (financial) capital, primarily invest their knowledge to build "prospective" entrepreneurial ventures "investable" in the eyes of the venture capital or VC market are referred to, herein, as Venture-to-Capital or V2C investors. In the view of this study, the venturers (entrepreneurs), the V2C players, and the VC players comprise the primary value chain or value adding chain around the growth company. Topped with the invaluable role of government to the entire growth company process, these are the four key stakeholders that comprise the V2C value network, in a given economy or region (see Figure 1.). (Jungman & al. 2004; for a seminal conceptual paper on the V2C phenomenon, see Seppä and Näsi 2001)

With the general rise of ICT enabled – and enforced – business models and concepts and, consequently, the transformation from capital intensive to knowledge intensive new venture activity, the godlike role in an economy referred to above may be shifting from those who invest (venture) capital to those who invest knowledge in ambitious entrepreneurial ventures to render them "investable" in the eyes of the venture capital industry. In the language of this study: In the knowledge society, the role of the enabling investor is shifting from VC to V2C investors. To investigate this notion, a study of the investment criteria of VC vs. V2C investors was undertaken.
RESEARCH MISSION AND STRATEGY
This research was triggered in 2001 by practical observations of post-hype changes in VC investment activity and an ambition to make scholarly sense of the phenomena at hand. The aim is to increase understanding by building empirically embedded propositions towards new theoretical frameworks and for further probing, rather than to empirically test hypotheses derived from established theories. The present study is part of a more extensive research program initiated in 2001.

The primary research mission of the V2C research program is to explore the business and strategy logic, and interaction and dynamics of the different players within the V2C space, and the stakeholders of the V2C process, in order to build new conceptual frameworks bridging research on entrepreneurship and venture capital, both formal and informal. The present study focuses on the investment decision criteria of V2C investors, and a comparison of the differences therein between formal and informal investors.

The main research question addressed in the present study is the following: How do entrepreneurial formal and informal V2C investors differ by investment decision criteria and what is the effect of the level of knowledge-intensity to V2C investors’ investment decisions? The main question is broken down into the following sub-questions: What are the differences related to (i) deal flow, (ii) key investment decision criteria, and (iii) perception of risk. Empirically embedded propositions are constructed on the effect of knowledge intensity on formal vs. informal V2C investors’ investment decision criteria supported by the literature based notions on differences in investment decision criteria of formal vs. informal VC investors.

The first task is to construct a guiding framework based on earlier V2C research and literature review of classic VC investment criteria. Based on the basic understanding, propositions are constructed for in-depth empirical scrutiny. The propositions are a product of a synthesis of the existing literature constructed in the context of the empirical research phenomenon, and not hypotheses for testing derived from established theories. The scrutiny of the propositions takes place via semi-structured interviews conducted with seven formal and seven informal Finnish V2C investors. The ultimate aim of the study is to construct one concluding proposition for a new theoretical framework to increase our understanding of differences in investment decision criteria between formal and informal V2C investors and the effect of knowledge-intensity, thereon.

THEORETICAL FRAMEWORK
The underlying theoretical framework of this study is that of the strategy logic of the venture capitalist by Seppä (2000). According to the framework of venture capitalist strategy logic, venture capital is an ownership, rather than finance related phenomenon, and VC investors are owners, rather than financiers, by profession. However, VC investors are by no means a homogenous group. Seppä (2000) finds six archetypes of strategy logic, of which Asset Managers and Venture Bankers are clearly more financier-oriented than the other archetypes. The normative archetype, Interim (or Professional) Owners, is assumed as the guideline for defining V2C investors in the context of this study. Based on the normative archetype, only entrepreneurial operators (not corporate or governmental) who are seeking for direct financial returns (instead of indirect strategic gains) were chosen as research objects.
In terms of defining the pool of V2C investors, the ongoing conceptual research by Rasila (2004) was used as a key reference (see also Rasila 2003). In general, V2C players fall into five traditional categories: (i) business angels, (ii) business angel networks, (iii) incubators, (iv) advisors, and (v) seed VC investors. Apart from formal business angel networks, representatives of all the main categories were interviewed for the purposes of this research.

Formal VC investors are not homogenous when it comes to investment decision criteria, either. In fact, little has changed from the days of the following conclusion of Timmons (1986): Many will investigate the same venture and come to opposite conclusions. Predictably, the V2C investors are a no less heterogeneous group in this respect. Nevertheless, according to the classic notion, the key investment decision criteria of a VC investor – an issue widely researched and documented in the literature – fall into three categories: (i) management team, (ii) market projections and (iii) product (Tyebjee and Bruno 1981 and 1984, MacMillan et al. 1985).

Informal VC investors have received far less scholarly attention, in general, than formal VC investors. However, the importance of studying the investment decision criteria of informal VC investors, especially of business angels, was already stressed by Harrison and Mason (1992). Nevertheless, research on the investment decision criteria of informal VC investors has been relatively scarce. It is to be noted that informal VC investors, as a group, fall within the V2C space.

It can be safely assumed that, on a grand level, the investment decision criteria of V2C investors does not differ from those used by VC investors. Variation is expected herein with regard to factors such as venture development stage, industry or technology, and geographical proximity; but even more so with regard to the level of knowledge-intensity of the investor.

For the purposes of this study, knowledge-intensity is defined as the perceived relative portion of an investor’s knowledge (sweat capital) vs. (financial) capital investment in a given investee firm. Herein knowledge takes the form of the investor’s perceived personal (hands-on) contribution in a given venture, such as participation in strategy or management work as co-entrepreneur. For a concrete example, as the interviewees were asked to define the percentage of knowledge vs. capital investment in their activity, the responses ranged from 30-70 to 100-0.

**Deal Flow**

As informal investors often prefer to remain anonymous, it can be expected that direct approaches from entrepreneurs are not a dominant source of deal flow for informal V2C investors. Instead, personal friends and formal business associates are likely to be the most relevant source of deal flow. On the other hand, formal investors are better known and more visible, and are therefore more likely to generate deal flow via direct contacts from entrepreneurs. In addition, own activity in deal search is expected to be a more important source of deal flow to formal than informal V2C investors. Further, as informal investors typically spend more time in their target companies than formal investors and often work on a hobby basis, informal V2C investors are predictably limited to a smaller number of investments. Hence, they are also likely to require less deal flow. Finally, Van Osnabrugge (1999) found support for the
hypothesis that venture capitalists generate and maintain a greater deal flow than business angels.

**Proposition 1:** Personal friends and formal business associates are the dominant source of deal flow to informal V2C investors, whereas direct approaches from entrepreneurs and own activity are the dominant source to formal V2C investors. The higher the knowledge-intensity, the more important role personal and formal networks play.

**Proposition 2:** Formal V2C investors generate and maintain greater deal flow than informal V2C investors. The higher the knowledge-intensity, the smaller pool of deals from which investments are accomplished.

**Investment Decision Criteria**

In Finland, the research on the investment decision criteria of informal investors has been rather scarce. Lummel et al. (1998: 62-66) analysed the factors that business angels take into account in deciding whether or not to seize specific investment opportunities. The factors that influence the investment decisions of business angels were classified as follows: (1) management, (2) investor background, (3) product and technology, (4) sector/market, (5) market position, (6) business idea, (7) financial situation, (8) stage of development and (9) information availability. The most common reasons for rejecting investment opportunities were characterised as: (i) management, (ii) financial situation, (iii) business idea and plans, (iv) business is at too early a stage of development, (v) business sector is not attractive, (vi) investor’s lack of knowledge, (vii) inadequate access to information on the enterprise, and (viii) too much work required.

One of the first international studies on the investment decision criteria of VC investors in Finland, Seppä et al. (1992) lists the top four investment criteria as: (1) general ability of management, (2) expected final ROI, (3) product and (4) market. However, no comparative studies of investment decision criteria between formal and informal VC investors have been made in Finland.

Two of the pioneers of informal VC or business angel research have been Richard Harrison and Colin Mason. Mason and Harrison (1996) suggest that the main reasons why business angels reject business opportunities were marketing, management team and finance related issues.

One of most comprehensive comparisons between formal and informal VC investors is that by Van Osnabrugge (1999). The study analysed data from 40 interviews and 262 questionnaire responses and found evidence that business angels place more emphasis on post-investment risk control than venture capitalists. Van Osnabrugge (1999) also suggests that informal VC investors are more influenced by the team, whereas formal VC investors are more influenced by market and product.

Finally, V2C investors are typically not in a position to change the management team. Also, they are expected to work in close co-operation with the entrepreneurial team and thus to pay more attention to the team than VC investors.
Investment Decision Criteria Used by V2C Investors

Proposition 3: Whereas all V2C investors emphasise the quality of the management team, formal V2C investors are likely to put more relative weight on the quality of the business plan than do informal V2C investors. The higher the knowledge-intensity, the less relative weight is put on the business plan.

Proposition 4: Informal V2C investors emphasise the personal investor-investee relationship and shareholder chemistry more than formal investors. The higher the knowledge-intensity, the higher is the importance of shareholder chemistry.

Perception of Risk
The existence of the VC industry is traditionally explained by uncertainty and asymmetric information, that VC investors have more information and better control for entrepreneurial undertakings of private equity situations than traditional financial market operators (Gompers and Lerner 1999).

As V2C investors, by definition, are expected to invest relatively more knowledge i.e. involvement than capital in their target ventures, than the VC investors, they are also expected to have the opportunity to steer their investments more closely. The nature of their investment grants them more post-investment risk control and therefore they are expected to accept more risk at the time of initial investment. Conversely, VC investors are expected to utilise post-investment monitoring less actively. In other words, the level of knowledge intensity is expected to influence the risk perception of the investor. Van Osnabrugge (1999) found support for this hypothesis. On the other hand, by definition, VC investors prefer more mature companies – on whom there is more historical information available – as investment targets than V2C investors. However, the cost of observing, monitoring, and controlling the investment appears to be quite similar regardless of the stage or the size of the venture (Seppä 2000). Hence, in principle, V2C investors are at a disadvantage vis-à-vis VC investors, who make bigger and later stage investments. Also this supports the reasoning, that V2C investors will weight post-investment monitoring.

As V2C investors mainly invest their time in the target ventures, they face no risk of great direct financial losses, per se. This is predictably more the case with informal vs. formal V2C investors. On the other hand, although VC investors also typically invest only relatively little of their own capital, and much more that of other people, they work hard to avoid losing it. Further, as noted in the previous section, V2C investors also have the option to steer their investments more closely, i.e., engage in post-investment risk management.

Proposition 5: In relative terms, formal V2C investors put more weight on pre-investment activity than informal V2C investors. Conversely, informal V2C investors put more relative weight on post-investment activity than formal V2C investors. The higher the knowledge-intensity, the less weight is put on pre-investment activity and the more on post-investment activity.

Proposition 6: The perception of the risk-return ratio related to an investee venture is closer to that of the investee entrepreneur’s for informal V2C investors than for formal V2C investors and, hence, informal V2C investors are likely to accept riskier investments than formal V2C investors. The higher the knowledge-intensity, the closer the risk-return perception is to that of the entrepreneur.
DATA AND METHODOLOGY

For the purpose of this study 14 entrepreneurial V2C investors were identified and invited for a personal interview. In total, seven formal V2C investors (full-time based and/or incorporated partnerships) and seven informal V2C investors (part-time based and/or individual solo operations) were interviewed in Finland in April, 2004. According to the underlying theoretical framework only the activity of the interviewees related to taking capital and/or knowledge investment based ownership positions in target ventures was under investigation, herein.

Resulting from the interviews, one of the formal V2C investors was excluded from the final sample, due to non-entrepreneurial status in investment decision-making. Hence, the final sample comprised six formal V2C investors and seven informal V2C investors. Of the formal V2C investors three were classified in the category of seed venture capitalists, two in the category of advisors, and one in the category of incubators. All of the informal V2C investors were classified as business angels. However, the range of knowledge-intensity in the investment activity of the business angels interviewed was extremely varied; from almost zero capital investment to only marginal knowledge investment. To secure comparative research data a structured interview exercise was undertaken. The interviews were recorded and the formal sessions lasted for an average of 45-60 minutes. The interview process comprised both qualitative and quantitative sections, an open space section, as well as an informal, non-recorded discussion session.

The interviews were followed by analysis and comparison of the investment decision process between formal and informal V2C investors. Naturally, given the small size of the sample, no rigorous statistical analysis could be performed on any of the quantitative data. Hence, the study is distinctly vulnerable in terms of any efforts at generalisation, regardless of how intuitively convinced the researchers are of the validity of their findings. The same holds for any research adventure of an inductive, hermeneutic, and holistic nature.

RESULTS

The final aim of the study is to construct one concluding proposition for a new theoretical framework to increase our understanding of differences in investment decision criteria between formal and informal V2C investors and, in general, between VC and V2C investors. The construction of the concluding proposition took the form of scrutinising each of the six initial propositions under three sections entitled Deal Flow, Investment Decision Criteria, and Perception of Risk.

Special attention was paid to the effect of knowledge-intensity on the investment decision criteria in a given V2C investor’s investment activity. Therefore the investors were placed into a two-by-two matrix based on the knowledge-intensity vs. capital-intensity of their operation. (See Figure 3.)
Deal Flow
As predicted, direct approaches from entrepreneurs and investors’ own activity were the dominant sources of deal flow to formal investors. Surprisingly, informal investors reportedly have more variation in the sources of their deal flow; they seem to value all three – personal friends, direct approaches from entrepreneurs, and their own activity, to the same extent. Nevertheless, they found personal friends to be more important as a source of deal flow than formal investors did. We also found that seed venture capitalists as capital intensive investors stress their own activity, whereas other formal V2C actors as more knowledge intensive investors get more direct approaches from entrepreneurs. Still further, knowledge intensive formal V2C actors also consider personal friends an important source of deal flow. We may therefore conclude that our findings partially support the following:

Proposition 1: Personal friends and formal business associates are the dominant source of deal flow to informal V2C investors, whereas direct approaches from entrepreneurs and own activity are the dominant source to formal V2C investors. The higher the knowledge-intensity, the more important role personal and formal networks play.

Formal investors typically generate a deal flow from 50 to 300 ventures, whereas informal investors only generate a deal flow from 5 to 30 ventures. However, the amount of investments made was more or less similar, ranging typically from 1 to 3. Of formal V2C investors seed venture capitalists seemed to generate more deal flow than advisors and incubators. This indicates that capital intensive investors have a greater pool from which they make investments as the amount of investments made is similar to that among knowledge intensive investors. Therefore we may conclude that our findings support the following:

Proposition 2: Formal V2C investors generate and maintain greater deal flow than informal V2C investors. The higher the knowledge-intensity, the smaller pool of deals from which investments are accomplished.
**Investment Decision Criteria Used by V2C Investors**

**Investment Decision Criteria**

In addition to the conventional open-ended interview questions, the investors were also asked to rank several investment decision criteria into order of importance (see Table 1). It was interesting to see how unanimous the interviewees were about the management team being the most important investment decision criterion. Further, for all investor groups the ranking appears to be 1) team, 2) market, 3) product and 4) deal characteristics. When asked about the importance of the team vs. the business plan, most of the investors would make the investment decision based on the team. However, some of the capital oriented investors indicated that they also review the options to reform the team and may, in such cases, make their decisions based on the business plan. Thus, we may conclude that the following is only partially supported:

Table 1 Average ratings of the investment selection criteria

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>Formal Seed VC</th>
<th>Formal Other</th>
<th>Formal Both</th>
<th>Informal V2C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur / Team</td>
<td>1,7</td>
<td>1,3</td>
<td>1,5</td>
<td>1,1</td>
</tr>
<tr>
<td>Enthusiasm / Commitment / Attitude</td>
<td>2,0</td>
<td>1,3</td>
<td>1,7</td>
<td>1,7</td>
</tr>
<tr>
<td>Trustworthiness / Recommendations</td>
<td>2,7</td>
<td>2,7</td>
<td>2,7</td>
<td>1,7</td>
</tr>
<tr>
<td>Track record / Capabilities / Skills</td>
<td>1,3</td>
<td>2,0</td>
<td>1,7</td>
<td>2,6</td>
</tr>
<tr>
<td>Product / Technology</td>
<td>2,7</td>
<td>2,7</td>
<td>2,7</td>
<td>2,9</td>
</tr>
<tr>
<td>IPR status / potential</td>
<td>2,0</td>
<td>2,7</td>
<td>2,3</td>
<td>2,6</td>
</tr>
<tr>
<td>Your own related expertise</td>
<td>1,7</td>
<td>2,3</td>
<td>2,0</td>
<td>1,9</td>
</tr>
<tr>
<td>Readiness of the product</td>
<td>2,3</td>
<td>1,0</td>
<td>1,7</td>
<td>1,6</td>
</tr>
<tr>
<td>Market</td>
<td>2,0</td>
<td>2,0</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Expected market share</td>
<td>3,0</td>
<td>2,7</td>
<td>2,8</td>
<td>2,4</td>
</tr>
<tr>
<td>Market growth rate</td>
<td>1,3</td>
<td>1,3</td>
<td>1,3</td>
<td>1,6</td>
</tr>
<tr>
<td>Competitive situation</td>
<td>1,7</td>
<td>2,0</td>
<td>1,8</td>
<td>2,0</td>
</tr>
<tr>
<td>Deal Characteristics</td>
<td>3,7</td>
<td>4,0</td>
<td>3,8</td>
<td>4,0</td>
</tr>
<tr>
<td>Syndication</td>
<td>1,7</td>
<td>2,7</td>
<td>2,2</td>
<td>2,6</td>
</tr>
<tr>
<td>Lead vs. co-investor</td>
<td>1,3</td>
<td>2,3</td>
<td>1,8</td>
<td>2,4</td>
</tr>
<tr>
<td>Involvement in business development</td>
<td>3,0</td>
<td>1,0</td>
<td>2,0</td>
<td>1,0</td>
</tr>
</tbody>
</table>

**Proposition 3:** Whereas all V2C investors emphasise the quality of the management team, formal V2C investors are likely to put more relative weight on the quality of the business plan than do informal V2C investors. The higher the knowledge-intensity, the less relative weight is put on the business plan.

Of team skills seed venture capitalists seem to value track record, capabilities and skills, whereas other V2C actors value softer characteristics such as enthusiasm, commitment and attitude. All investors seem to emphasise market growth rate, but in addition, capital intensive seed venture capitalists seem to weight the competitive situation in the market to the same extent. Out of the deal characteristics for informal V2C investors, advisors and incubators, the most important appears to be their own “involvement in business development”, whereas seed venture capitalists weight syndication and their own status as lead vs. co-investors. These findings further support our thinking that knowledge intensive V2C actors are after someone to work with, whereas more capital intensive seed venture capitalists are more after someone to make money with. Hence, we may conclude that our findings support the following:
Investment Decision Criteria Used by V2C Investors

Proposition 4: Informal V2C investors emphasise the personal investor-investee relationship and shareholder chemistry more than formal investors. The higher the knowledge-intensity, the higher is the importance of shareholder chemistry.

Perception of Risk
When analysing the deal flow and investments from the past year we found that formal investors typically made one investment per 50 proposed deals, whereas, informal investors typically made one investment per 10-15 proposed deals. This indicates that formal investors put more weight on pre-investment activity than informal investors.

Further, as noted in the previous section, V2C actors with high relative knowledge intensity tend to look for deals where they can be involved in business development; this also indicates the relative importance of post-investment activity. Seed venture capitalists, on the other hand, seem to weight the more pre-investment related characteristics of the deal. (See Table 1) Again, we may conclude that our findings support the following:

Proposition 5: In relative terms, formal V2C investors put more weight on pre-investment activity than informal V2C investors. Conversely, informal V2C investors put more relative weight on post-investment activity than formal V2C investors. The higher the knowledge-intensity, the less weight is put on pre-investment activity and the more on post-investment activity.

In the sample there was one informal investor who described himself as a capital investor; he was also by far the most risk averse of the whole sample – actually the only one who weighted risk control over return potential as investment criteria. All the others were willing to accept more risky investments and weighted the return potential over risk control. Further, formal investors were slightly more risk averse than informal investors. We also found that the greater the relative share of invested knowledge vs. capital, the more risk investors were willing to accept. Thus, our findings seem to support the following:

Proposition 6: The perception of the risk-return ratio related to an investee venture is closer to that of the investee entrepreneur’s for informal V2C investors than for formal V2C investors and, hence, informal V2C investors are likely to accept riskier investments than formal V2C investors. The higher the knowledge-intensity, the closer the risk-return perception is to that of the entrepreneur.

CONCLUSIONS
“During the last couple of years we have, indeed, clearly transformed from capital investor to knowledge investor.” (formal V2C investor interviewed)

Due to the nature of the present study, the investigation is not amenable to generalisations. However, we find convincing, case-based support for the V2C argument – that those who primarily invest knowledge are emerging to challenge the role of those who primarily invest capital as key enablers of economy. This is not to suggest that knowledge investors are about to replace capital investors, quite the contrary. Knowledge investments without capital investments to follow will often be
Investment Decision Criteria Used by V2C Investors

as useless as ever before. Instead, knowledge investors may be emerging as the factor that makes the difference for the success of capital investors. Although not irrefutably proven here, the above notion is in full conformity with the general perception related to knowledge society development, that value is increasingly created by chains, if not networks, of companies, rather than individual players.

The evidence of the study, however case-specific, suggests a trend from capital investment to knowledge investment on the level of an individual V2C investor, as marked by the above quotation from one of the interviewees.

According to the concluding proposition of this study, illustrated by a simplistic two-by-two matrix, the differences in investment decision criteria between formal and informal V2C investors are concerned with the knowledge-intensity of their operation. In the matrix, besides the formal vs. informal status, V2C investors are divided by whether they primarily invest capital vs. knowledge. In short, our findings formally suggest the emergence of knowledge investors (referred to as V2C investors) on the side of capital investors (referred to as VC investors). If shared by researchers and subsequent research this may ultimately lead to the acknowledgement of a new profession, that of professional owner or co-entrepreneur, in the context of the venture capital process, on the side of investors and entrepreneurs (let alone consultants).

In particular, our evidence demonstrates how the investment decision process and perception of risk are affected by the knowledge-intensity of the V2C investor. The new knowledge about V2C investors’ investment decision process is expected to benefit entrepreneurs seeking growth-financing. In addition, it is likely to benefit V2C and VC investors themselves by increasing the understanding of each other’s business dynamics, as well as researchers studying the phenomena at hand.

We also trust that the study will be of value to policy makers, as entrepreneurial growth companies, and their facilitators, both VC and V2C investors, are the central building blocks of economic wealth and job creation in any economy. Entrepreneurs are readily entrusted by capital providers with the decisions of how to select raw material and other means of production, refine it all into final products or services, and sell for maximal profits. But when it comes to decisions on how to select the best potential among growth companies, build their business, and realise value added, trust is not as readily placed in entrepreneurial actors, at least by governments.

REFERENCES


Investment Decision Criteria Used by V2C Investors


Investment Decision Criteria Used by V2C Investors


Knowledge Fund

Knowledge Fund – A Structural Proposition for the Emerging V2C Industry

Marko Seppä and Hannu Jungman


INTRODUCTION

The importance of ambitious entrepreneurs and their ventures to economic wealth and job creation is, by any measure, unarguable. Thanks to:

(i) the collapse of communism in Europe, in 1991, and the subsequent rise of appreciation of entrepreneurship throughout the world, and
(ii) the emergence of ICT enabled business concepts – that followed the end of the Cold War – which rapidly convert start-ups, and business in general, from capital intensive to knowledge intensive,

both mental and physical barriers to start new business ventures are lower than ever in the whole world. Since 1995, these developments accumulated an unforeseen rise in the demand for venture capital financing – and an unforeseen rise in the supply of the same. (Seppä 2000)

However, according to the basic observations that triggered this research, in 2001, the unforeseen growth in both the demand and supply of venture capital financing, in the go-go years of 1995-2000, yielded a long-lasting paradox. Whereas the average size of a venture capital fund (and the size of a minimum investment) has grown exponentially, the ventures seeking for financing have, at the same time, transformed from capital intensive to increasingly knowledge (hands-on) intensive. While there for once has been no shortage of capital, there is – paradoxically – a shortage of small (and knowledge intensive) enough doses of it. (Murray 1999; Sohl 1999; Seppä & Näsi 2001; Rasila 2004)

The effects of the VC spiral, depicted by Seppä (2000), were already noted as a potential future concern by Bygrave and Timmons (1992) in their landmark book: Venture capital at the crossroads. In result, aside of the classic Capital Gap (originally labelled as the Macmillan Gap in 1931), Knowledge Gap has emerged between new venture activity and the venture capital industry. (Seppä & Näsi 2001; Rasila, Seppä & Hannula 2002; Rasila 2004; Bartlett 1999). This development owes to the transformation of kin to industrialisation – referred to as electronisation, digitisation and knowledgeisation – which is under way in the society: A transformation marked by, e.g., conversion from capital intensive to increasingly knowledge intensive business models and transition from value chains to value networks in the creation of economic value added. (Eliasson 2001; eBRC 2001-2004)

Industrialisation, the conversion from agricultural to industrial economy, was marked by the Capital Gap, a shortage of financial capital. Knowledgeisation, the ongoing conversion from the industrial economy to knowledge economy, is marked by Knowledge Gap, a shortage of knowledge capital. Whereas the Capital Gap became
bridged by financial capital investors referred to as business angels and venture capitalists – or the venture capital (VC) industry – the Knowledge Gap is being bridged by knowledge capital investors referred to, in this research, as knowledge angels or co-entrepreneurs and venture knowledgists – or the venture-to-capital (V2C) industry.

THE RISE OF THE V2C INDUSTRY AND THE NEED FOR STRUCTURAL SOLUTIONS

The observations of the Knowledge Gap and of the innovative ways to bridge ventures and capital – that led to the conceptualisation of venture-to-capital (V2C) activity – derive from E-Forum, the EU (FP5) funded research project that also marked the launch of eBRC, one of the six sub programs of eTampere, in 2001. E-Forum, coordinated by Technology Centre Hermia Ltd. in Tampere, Finland, and involving partners from six different countries, analysed and sought for new solutions for the matching of (early stage) ventures and (venture) capital in different parts of Europe. In the context of E-Forum, a seminal typology of V2C actors was constructed. (Seppä & Näsi 2001)

Most recently, V2C players have become classified as knowledge capital investors who by aligning the interests of entrepreneurs (the ultimate knowledge capital investors) and venture capitalists (financial capital investors), as co-entrepreneurs or venture knowledgists, bridge the knowledge gap by pushing ventures to capital. Whereas financial capital investors, in the private equity arena, have become classified as formal VC investors or venture capitalists and informal VC investors or business angels, knowledge capital investors are being classified as formal V2C investors or venture knowledgists, and informal V2C investors or knowledge angels or co-entrepreneurs. (Harrison, Jungman & Seppä 2004; Jungman & Seppä 2004)

Through its seminal conceptual evolution, culminating in the proposition for a new paradigm for growth venturing by Rasila (2004), V2C has conceptually remained a mainly European concern. In America, the more traditional value chain – comprising entrepreneurs, family and friends, business angels, and venture capitalists – continues to more efficiently bridge both the Capital Gap and the Knowledge Gap, than in Europe, excluding the UK. It is rather safe to assume that start-up entrepreneurs are, on average, better equipped in America than Europe, both by experience and mentality, to face the challenges of young, rapidly growing companies. Also, the level of private savings and supply of business angel financing assure a dynamic, market-based, and market-driven upbringing to young ventures. In Europe, the process has to be compromised by public sector intervention, starting from the go/no-go decision. Instead of fellow principal operators, entrepreneurs have to interact with government officers and/or consultants operating as government agents.

In this light, Europe, particularly Finland, is only a logical home for the conceptualisation of V2C, and the call for informal knowledge investors, as well as a formal V2C industry. Finland boasts top ratings in world rankings in terms of ICT, innovation activity, R&D investments, and knowledge intensity (World Economic Forum 2005). From one hand, it is safe to assume, Finland has a world class environment to spur prospective ventures. From the other hand, due to cultural issues, historical confrontations, and tax policies, Finland suffers from extremely low level of business angel activity. According to GEM 2002, Finland is among the countries with
Knowledge Fund

lowest rate of informal investment as a percentage of GDP (Reynolds, Bygrave, Autio, Cox & Hay 2002; see also Bygrave, Hay & Reynolds 2003; for more detailed documentation on business angel activity in Finland see Lumme, Mason & Suomi 1998). To utilise the country’s obvious potential, the government sector has been very active in the early stage arena, both on national, regional, and local level. Government leadership, topped with apparent shortcomings in the entrepreneurial culture, in appreciation of go-gettedness, market-aggressiveness, and associated drive for wealth creation, have a constituted for a lock-up where good intentions – the ways and forms, by which growth resources are being offered – paradoxically, only prevent success.

It has been proved in several studies that business angel financing is an invaluable phase before formal venture capital financing. In particular, the non-financial contributions of business angels are greatly valued by entrepreneurs. (Harrison & Mason 2000; Madill, Haines & Riding 2005) The non-financial contribution can be divided into six categories: advice, contacts, hands-on assistance, boards of directors and advisors, market and business intelligence, and credibility/validation (Madill et al. 2005). In short, V2C (or knowledge investing) deals with the investments of only (mainly) the non-financial contribution and defining it as knowledge capital. Knowledge capital – and herein also Knowledge Gap, knowledge investment and Knowledge Fund – refer to both explicit and tacit knowledge. Into knowledge are, herein, also embedded individual experience, personal beliefs, perspectives, and values. (Nonaka & Takeuchi 1995) In this study knowledge can also been as synonym to businessman wisdom including entrepreneurial capacity, which underlines companionship and the intensity of the relationship between entrepreneur and knowledge investor.

At any rate, Finland, suffering from a lack of business angels has had a need to find alternative ways to channel similar contributions to young start-ups. Madill et al. (2005) found three alternative sources for the non-financial contributions of business angels: (i) doing it self, (ii) paying for the contribution, and (iii) from boards of directors. At least in the case of Finland, it seems that these means are not sufficient enough. Namely, in European and global comparisons, Finland still lags behind in the relative number of growth companies that truly break through to international markets (see e.g. Hyrsky & Lipponen 2004). According to many indicators, such as EU’s Innovation Index, the Finnish innovation environment ranks among the top of the world. (European Commission 2004) Yet only few ventures emerge as truly successful growth companies. It is being argued that this is due to lack of related business know-how. (Paasivirta & Valtonen 2004). By 2004, as a sign of conceptual acknowledgement and awareness, the development and support of “V2C activity and co-entrepreneurship” were referred to as key means to improve the matching of ventures and capital, in a government report, in Finland (Ryynänen 2004).

Instead of financial capital, V2C players primarily invest knowledge capital in order to build ‘prospective’ entrepreneurial ventures ‘investable’ in the eyes of the venture capital industry. Interestingly, informal knowledge capital investors are emerging even in Silicon Valley (Komisar 2001; Rasila 2004). Harrison et al. (2004) find case-based support for the rise of knowledge angels and V2C to complement business angels and VC. At present, the V2C field comprises a diverse group of actors operating from a fragmented set of structures and offer no concept of industry to their key stakeholders. Similarly, in the late 1970s and early 1980s business angels formed
Knowledge Fund

“an informal, word-of-mouth network dominated by ‘lone wolf’ chequebook angels” making ad-hoc investments. From those days the angel investing scene has changed a lot and today there is a huge amount of business angel clubs, structured groups and networks operating around the world. (May 2002)

In this research, the four key stakeholders of the growth company process are referred to as venture, V2C, capital, and government – as depicted in Figure 1 below (Jungman, Kankaala, Rasila & Seppä 2004).

(i) VENTURE: entrepreneurs, ideally serial entrepreneurs, who invest all of their knowledge capital in a single venture for a given period of time

(ii) V2C: venture knowledgists, who primarily invest knowledge capital, either on a professional (full-time) or hobby (part-time) basis in a limited number of ventures,

(iii) CAPITAL: venture capitalists, who primarily invest financial capital, either on a professional (full-time) or hobby (part-time) basis in a limited number of ventures,

(iv) GOVERNMENT: The policies and politics (fiscal, legal, structural, and cultural) that influence the dynamics of growth company process and resource market.

San José, Roure & Aernoudt (2005) argue that one of the biggest obstacles for individuals not getting involved in entrepreneurial process is the lack of understanding of the investment process and this prevents them taking advantage of the emerging investment opportunities. As a solution they propose a new form of invention, business angel academies. It can be assumed the situation to be similar in knowledge investing and this supports the need for new more formal model to channel knowledge capital into entrepreneurial ventures. One of the main functions of this model should be support in investment process. This favours the need for professional management team similar to a venture capital management company.

It has also been argued, by Oakey (2003), that the key problem in early stage financing is the lack of commitment. Especially, this is the case in university spin-offs with long development lead-times. One side of the problem, as introduced earlier, is the shift in venture capital from hands-on to hands-off approach. This further verifies the need to develop a business model that from the beginning emphasises long term commitment.
Knowledge Fund

All of the above shows that there is a need and opportunities in the early stage market for experimentation and new innovative structures. Further, existing success stories, like the structured business angel group to be introduced later, can be used as basis when creating new hybrid organisations. This paper reports seminal results from an ongoing study and introduces a structural proposition for the emerging V2C industry – a Knowledge Fund.

RESEARCH MISSION AND RESEARCH STRATEGY

The research underlying the present paper was triggered, in 2001, by observations of post-hype changes in VC investment activity and ambition to make scholarly sense of the phenomena at hand. Regardless of progress in conceptualisation and paradigm building, in the V2C space, the research is still primarily inductive and exploratory by nature.

The fledgling attempts, referred to above, are only the first efforts to conceptually define and establish the V2C phenomenon. Furthermore, the practical activity is still just as unorganised and heterogeneous as was the case with the VC industry 50 years ago or with business angel activity 25 years ago. (Seppä 2000; May 2002)

Research mission

The grand mission of the research underlying this study is to increase our understanding of the dynamics of creating successful growth companies as a partnership activity between entrepreneurs, knowledge investors, capital investors, and government. The business and strategy logic, and the interaction and dynamics of the different players and stakeholders of the V2C phenomenon are investigated, in order to build new conceptual foundations that bridge research on strategy, entrepreneurship, venture capital, and knowledge management.

At present, V2C players operate from a fragmented set of structures and offer no concept of industry to their key stakeholders. Based on existing wisdom on strategy logic of the venture capitalist, this conceptual paper provides a structural proposition for the emerging V2C industry. The primary mission, herein, is to share a social innovation, refine core concepts, and propose directions for empirical research in the V2C space.

The main research question, addressed in this paper, is the following: How could the V2C players utilise the limited partnership fund vehicle, the dominant VC industry structure, for the systematic channelling of knowledge investments to early stage ventures? As sub questions, we ponder upon: What would be the effects of the structural proposition to the key stakeholders of the V2C process, namely (i) entrepreneurs, (ii) venture knowledge (and co-entrepreneurs), (iii) venture capitalists, and (iv) government?

Research strategy

Based on existing wisdom on strategy logic of the venture capitalist, the study seeks to design a business structure for the venture knowledge (and co-entrepreneurs): The concept of a Knowledge Fund. The study dives deep into the structural development of the limited-life limited-partnership based fund vehicle of the VC industry in its search for a structural proposition for the V2C industry.
The first task is to construct a guiding framework based on earlier VC and V2C research. Based on the basic understanding, a proposition for a Knowledge Fund is constructed for initial conceptual probing from the perspectives of the key stakeholders of the activity. The proposition will be a product of synthesis of existing literature constructed in the context of the empirical research phenomenon, embedded in the researchers’ own role as active knowledge investors (or co-entrepreneurs) in early stage companies.

Importantly, the authors derive from their own efforts, as (part-time-based) practitioners, to design and set up a Knowledge Fund to bridge university based innovations and growth resources.

THEORETICAL FRAMEWORK
Over a short period of time, during 2001-2005, the V2C field has become defined as an emerging industry of ownership operators who, by bridging ventures (entrepreneurs) and capital (venture capitalists), build business aside of entrepreneurs. Thereby, the V2C players join a chain of active owners who build businesses from the entrepreneurial (foundation) stage to the public quotation.

These are market players whose business is to convert private equity to public equity and to earn profits by realising the value-added. This is a fragmented industry where one segment serves more the interest of the entrepreneurs, another the interest of the venture capitalists, and a third the interests of the government, and/or, in effect, their very own.

Normatively, the grand mission of the V2C industry is to align the interests of the parties. In particular, to align the interests of entrepreneurs and venture capitalists, whose matching has, to large extent, converted from the intimate partnership building of the good old days – due to bidding competitions, extensive due diligence procedures, etc. – to more sterile financial transactions.

In the view of this study, V2C, in particular, is an ownership profession, not a consulting, management or investment profession. Normatively, a V2C professional is closest to “professional entrepreneur” and, at the same time, very different from professional consultant, professional manager, and professional investor.

Since the seminal contributions by Tyebjee and Bruno (1981, 1984), Bygrave and Timmons (1984), and MacMillan, Siegel & Narasimha (1985), research on the growth company process has largely geared around the popular conceptualisation of the venture capital process, i.e., fund raising, entering, value adding, and exiting. The basic notion of the VC process underscores ownership, and its ability to reflect the value-added, as the primary economic vehicle of building business from venture to capital. The classic role of venture capitalists has been to refine investable ventures listable in the eyes of the consumers of the stock market (investors in IPOs and parties to trade sales) generating profits from the margins of sale and purchase prices of equity stakes in portfolio companies.

The discovery and widely spread commercial application, since the late 1970s, of the limited-life limited partnership (LP) fund vehicle, in America, has significantly
influenced the growth company process. The LP vehicle has proved to brilliantly serve the grand idea of the VC process: active temporary ownership of ambitious entrepreneurial ventures. The LP structure (i) enables those who (only) have financial capital to empower those who (only) have knowledge capital as independent venture capitalists (by granting them full “powers of attorney”), (ii) puts pressure on the empowered capitalists to act decisively, due to the limited life of the mandate, and (iii) creates significant incentives for the empowered capitalists to perform at the very best level, due to the carried interest element. (Seppä 2000)

In his study of the strategy logic of the venture capitalist, Seppä (2000) defines venture capitalism more as an ownership than a finance related phenomenon. He concludes, however, that VC is by no means a homogenous industry. Instead, he urges three fundamental questions to be addressed, when seeking to understand VC as a business (see Figure 2):

(i) WHO is the venture capitalist (the true principal of the undertaking),
(ii) WHY is he/she in business, and
(iii) HOW is he/she (legally and structurally) organised.

Seppä (2000) finds six archetypes of strategy logic. In short, the archetypes are products of different combinations of answers to the three questions above: (i) The identity of the venture capitalist is classified either as entrepreneurial, corporate, or governmental; (ii) the missions either as direct financial or indirect strategic; and (iii) the structures either as single (one investment corporation) or a dual (management company – separate L.P. funds) structures. Consequently, the different archetypes put differing weights to the different phases of the VC process. One emphasises fund raising, another entering, a third value-adding, and – interestingly enough – only the normative one emphasises exiting.

In the present study, the normative archetype, referred to as Interim (or Professional) Owner, is assumed as the norm also for the V2C players. Hence, only entrepreneurial operators (not corporate or governmental) seeking for direct financial returns (instead of indirect strategic gains) via the dual structure (instead of the single corporation) are within the scope of this study. The five other archetypes are referred to as Asset Manager, Venture Banker, Empire Builder, Bounty Hunter and Caretaker.
**Knowledge Fund**

**Figure 2 Strategy logic of the venture capitalist (Seppä 2000)**

Besides the framework of venture capitalist strategy logic by Seppä (2000), the outline of the business concept of the normative V2C actor by Rasila (2004) is used as the underlying theoretical framework of the present study (see Figure 3). According to Rasila (2004), the investment fund should be complemented by a brain fund, or vice versa (for the first reference to a Knowledge Fund, in the context of the V2C phenomenon, see Seppä 2002).

**Figure 3 Outlining the business concept of the normative V2C actor (Rasila 2004)**

In terms of defining the pool of V2C investors, the ongoing conceptual research by Rasila (2004) was used as key reference (see also Rasila et al. 2002). In general, V2C players fall into six categories: (i) business angels, (ii) incubators, (iii) advisors, (iv) corporate venturing schemes, (v) seed VC investors, and (vi) emerging V2C concepts.

The third framework for this study is the structured business angel group. For the best results also the angel investment process requires synchronisation of different components. The stakeholders involved are entrepreneurs, advisers, intermediaries and angels, all with different characteristics and personalities. An important factor for success is the management of the whole investment process, including both...
entrepreneurial and interpersonal skills as well as the provision of capital. (San José et al. 2005)

In the centre of structured business angel groups is a knowledgeable manager identifying and screening the deal flow, managing the group, and discovering co- and follow-on investors. Typically, these structured groups are organised as limited liability companies (LLCs) where the individual angels are members and the leader or manager is the general partner. In addition to financial reward, the members also look for camaraderie and status. For example, Dinner Clubs process builds on monthly meetings where entrepreneurial teams – pre-screened by the manager – give their pitch followed by discussion and hand count voting for due diligence. If the consensus is clear yes, the meeting is followed by due diligence and a report by the team led by the manager. (May 2002)

In summary, we follow the strategy logic framework of the venture capitalist, crafted by Seppä (2000), which puts the emphasis on understanding the linkages between ownership of a venture capital company and its strategy logic. The framework depicts a product-market system comprising two primary types of products (funds and divestee companies) and three dominant types of markets (investors, entrepreneurs, and consumers of the stock market). The two other frameworks more close to the one to be depicted are the business concept of the normative V2C actor and structure of a structured business angel club.

**KNOWLEDGE FUND DEPICTED**

In our depiction, a team of growth venturing professional gets together driven by shared insights and values, and a joint vision for a defined window of opportunity: A deal flow of businesses where the founders are committed to building business from venture to capital – to rapidly building an entrepreneurial company from a growth prospect to investable (in the eyes of the venture capital industry) and, ultimately, to listable: From private equity to public equity. The synergy of the team may point at, e.g., a specific sector of economy or technology or a region or a stage of development. The window may be narrow and short as well as wide and long. The shorter and narrower the window, the faster the team needs to push for the opportunity.

The depicted model heavily stresses post-investment risk control over pre-investment risk control i.e. instead of exhausting due diligence the risks are controlled with active hands-on involvement in investee companies similar to business angels (see e.g. Van Osnabrugge 1999). Obviously this also emphasises the importance and quality of the knowledge investors’ non-financial contribution, which, by definition, is seen more important than the financial contribution.

The structure of the Knowledge Fund is depicted below in Figure 4 and the stages of the investment process explained in some detail in the text below.
Knowledge Fund

1. Individual growth venturing professionals discover the potential of their combined (i) venture deal flow and (ii) associated brain pools (networks of prospective knowledge investors)
2. Entrepreneurial initiative is taken to formally establish a VC2 partnership – typically a limited liability firm – giving birth to new professional venture knowledgists
3. Fund raising is commenced by offering LP stakes in the limited-life vehicle to members of the combined brain pool (the venture knowledgists’ pool of knowledge investors) by the venture knowledgists and their company serving as general partners
4. Commitment of knowledge investments to the Knowledge Fund by the members of the combined brain pool – giving birth to a new V2C industry structure and a group of professionals referred to as co-entrepreneurs (the limited partners)

Entering
In the concept, the individual venture knowledgists, co-entrepreneurs, and portfolio entrepreneurs, comprise the key sources of deal flow.

5. Connection with a prospective entrepreneur and the venture takes place
6. Common interest, insights, values, and vision are established, and individual co-entrepreneurs selected from Knowledge Fund by venture knowledgist for knowledge investment discussion with the entrepreneur, and the venture knowledgists
7. Final deal negotiations are undertaken between the three parties, and the formation of the new ownership base completed by having the individual roles of each party, as well as a joint agenda established
Knowledge Fund

Value adding
In the concept, value is built by a value network composed by the entrepreneur, the venture knowledgist, the selected co-entrepreneurs, and – later on – by the venture capitalist. Together the four parties build target company value for the benefit of the consumers of the stock market – either investors in an eventual IPO of the target company or the acquirer in an intervening trade sale situation.

8. Ownership arrangements are executed; the Knowledge Fund becomes a new shareholder in the prospective venture, aside of selected few co-entrepreneurs – and the set-up of the new governance structure serves as the first element of value-adding
9. Value adding from prospective to investable phase commences
10. Connection between the venture, the venture knowledgist and a venture capitalist
11. Entry of venture capitalists (further expansion of ownership base); only partial, reasonable exit of the venture knowledgist and co-entrepreneurs materialises
12. Value adding from investable to listable phase commences; at this stage of the process, the VC takes over as the coach of the target organisation – grooming it towards public quotation.

Exiting
In the concept, the ultimate profiting and revenue generation of each of the parties, in the value network, is tied to the final exit. Thereby, the introduction of the Knowledge Fund concept is largely aimed at bringing the interests of the entrepreneurs and the venture capitalists in full alignment.

13. Successful joint sale of equity by the entrepreneur, the V2C operators, and the VC players to consumers of the stock market (either following an IPO or a trade sale to an already quoted industrial acquirer) in an exit arrangement, complete the growth company process and fulfil the profiting interests of the key parties (partners).

There are several important issues to be addressed or covered, with regard to cash flows, target venture valuations, and profit sharing schemes. All issues, on the other hand, that different operators may choose to solve with differing principles, thereby contributing to differences in competitive positions and, at best, accruing competitive advantages.

STAKEHOLDER PERSPECTIVES
There are four main stakeholder groups to the Knowledge Fund, namely the entrepreneurs, the venture knowledgists and co-entrepreneurs, the venture capitalists, and the government. These stakeholders have also been identified as the most important ones when analysing the performance of V2C actors (Jungman, Okkonen, Rasila & Seppä 2004). Of these stakeholders entrepreneurs are the first customer group or market segment to be interacted with, but the ultimate customers are the consumers on stock markets and corporate acquirers – venture capitalists fall in between. The products offered are knowledge capital for prospective companies, investable companies for venture capitalists, and listable companies for the final
Knowledge Fund

customers. As distinction to the venture capitalists strategy logic, co-entrepreneurs i.e. (knowledge) investors and the fund vehicle are seen to be within the organisation. Next, we shall analyse the operation of the Knowledge Fund from each of the stakeholders’ perspective.

Entrepreneur
To the entrepreneur, the Knowledge Fund represents a systematic pooling and channelling of the scarce, secretive, and intimate resources that are vitally critical to new venture success. The Knowledge Fund catalyses the birth of a new profession and industry, an industry of co-entrepreneurs and venture knowledgists that serve as a sort of extension of the classically lonely role of the entrepreneur.

The entrepreneur should make certain that there is chemistry between the venture knowledgists, to begin with, as well as with each of the selected co-entrepreneurs. Also, there should be detailed discussions between the three parties as to what is expected from each player.

Venture knowledgist and co-entrepreneur
The Knowledge Fund is primarily the vehicle of the venture knowledgist. Hence, the venture knowledgist has the greatest responsibility of the functioning of the structure. Whereas the Knowledge Fund marks a profession (full time business and livelihood) to the venture knowledgist, it marks a hobby to the co-entrepreneurs. Nevertheless, the Knowledge Fund represents an important element of risk sharing and professional development also to the co-entrepreneurs.

The venture knowledgist, in order to solve the day-to-day financing problems, needs to raise each Knowledge Fund with such financial commitments that cover for reasonable management costs. Three partners combined require an absolute minimum of 300,000 euros per year for management expenditures, including modest salaries, in most parts of Europe. To survive in operation for ten years, the financial commitments of the limited partners (co-entrepreneurs) should be, in total, at least 3 million euros. A Knowledge Fund targeting a total of 30 limited partners (co-entrepreneurs), should seek commitments – besides their knowledge capacity – in cash also, at least 100,000 euros from each. Given the picture, both the venture knowledgists and the co-entrepreneurs – and the whole idea of the Knowledge Fund – would greatly benefit from the participation of separate financial investors. For any financial investor, 3 million euros is peanuts. For most knowledge investors, 100,000 euros is a lot.

Venture capitalist
To the venture capitalist the Knowledge Fund bears the promise of improved deal flow and ability to enter prospective ventures earlier than would be the case without such members of the relay team of building business from venture to capital. The venture capitalist should embrace the independence of the venture knowledgist and resist temptation to control (even own) this player, in order to support the dynamism of the market.

The venture capitalist should appreciate the venture knowledgist’s confidence in the venture capital process – i.e., the leading role of the VC in realising the ultimate capital gains in an exit arrangement – by allowing a partial exit to the V2C player
Knowledge Fund

upon entry of the VC. A partial exit would serve two purposes: (i) payment for work done and role completed and (ii) prevent dilution of the founding entrepreneur or whoever is to be raised in top managerial positions for the final stretches before an envisioned IPO.

**Government**

For the government, the concept of the Knowledge Fund represents potential for a new delivery channel of growth resources. As according to Rasila (2004), a certain combination of investment fund and Knowledge Fund (or brain pool) is required to cover for the day-to-day costs of the venture knowledgists. The fact that the venture knowledgists serve distinct groups of co-entrepreneurs serves as insurance to a necessary financial investor, which role could well be suited to governments whose market environments are insufficient in the V2C space, such as is the case with Europe and, in particular, Finland.

The government could not, by definition, as a venture capitalist, offer anything but financial investment. Any hands-on involvement would come from agents of the government – either officers on payroll or assigned consultants. Such individuals would be difficult to motivate to invest businessman wisdom (or entrepreneurial capacity) into their portfolio companies. Instead, the Knowledge Fund offers a perfect possibility to co-invest financial capital along entrepreneurially invested knowledge capital.

In conclusion, the value adding chain – or the value network – of the growth company process can be depicted as follows (see Figure 5). The depiction underscores the importance of responsibility and commitment of owner operators – which should be supported by government policies, financing programs, and incentive schemes – in building business from venture to capital.

![Figure 5 The value adding chain of the growth company process](image)
DISCUSSION AND CONCLUSIONS

Ventures faced with the knowledge gap (or the business wisdom gap) have the problem that the knowledge they need cannot be bought on the market in the classic meaning of the word. On the other hand, such ventures would only in rare case have the financial means, to begin with.

Hence, in the acquisition of such knowledge, expansion of owner base may be a working solution. Creative, professionally managed structures that encourage interim ownership participation by relevant representatives of the different sectors of the society – business, university, and government – could be the missing link between venture and capital in the growth company process. Needless to say, completion of the value chain between venture and capital would have a significant impact on the economy at large. Naturally, such a crossing of borders and boundaries would require a wide discussion and acceptance – and appreciation – across the entire society.

After an era centred on venture capitalists, as the key providers of external growth resources to entrepreneurs and the private enterprises, venture knowledgists appear to be emerging as the newest rain maker and the enabler of economy in the 21st century.

With the general rise of ICT enabled – and enforced – business models and concepts and, consequently, the transformation from value chains to value networks, and from capital intensive to knowledge intensive new venture activity, the most critical role in an economy, referred to above, may be shifting from those who invest (financial) capital to those who invest knowledge in ambitious entrepreneurial ventures to build them investable in the eyes of the financial investors. In the language of this study: In the knowledge society, the role of the key enabler of economy is shifting from VC to V2C.

Borrowing and amending the classic words of Brophy (1986): It is unlikely that a country or a region can be competitive without a dynamic and vibrant V2C community. By deciding, on behalf of the society at large, which new ventures are to go forward and which not, knowledge capital investors – such as venture knowledgists via Knowledge Funds – will play the almost godly role in an economy which classically has belonged to financial capital investors: First to Kings and Kaisers, then bankers and industrialists and, finally, throughout the Cold War era, to venture capitalists.

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