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A Case Study of Board Control and Governance in a Venture Capital Portfolio Company 1980–1997

ABSTRACT

Contracts in venture capital have been examined most often through the lens of agency theory. From this perspective, the venture capitalist sits on the board of directors of portfolio companies in order to monitor the behaviour of the entrepreneur as chief executive officer and agent of the investors. The governance provided by such a board is different, however, from that provided by the boards of larger corporations. The role of the board, in small corporations, is more involved than that of their larger brethren. In this paper, the governance provided by the board of a new start-up venture is examined in detail. The case follows a single syndicated technological investment undertaken, originally, at the seed stage and followed through to merger and public listing. The case demonstrates the intensive involvement that early stage venture investors have in their portfolio companies showing the difficulty of trying to describe the complex interactions that take place in a dynamic system under a single static theoretical mold. The growth and success of this venture was due, in large part, to the contribution of the non-executive directors.

Key Terms: *venture capital, case study, agency theory, board of directors, entrepreneur*

Section I: Introduction

A key descriptor of venture capital, for many, stresses the involvement of the venture capitalists with their portfolio companies and the fact that portfolio companies are assisted with *more* than capital. The suggestion that management advice and assistance are an integral part of venture capital operations and, indeed, the definition of venture capital is outlined by researchers from Admati (1994) to Zutshi (1999) as well as a number of international and na-

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tional organizations (BIE, 1987; EVCA, 1997; IVCA, 1996–97). Whatever definition is used, undoubtedly, both venture capitalists and entrepreneurs play a significant, crucial and mutually complementary role in the success of the ventures so funded. The relationship between venture capitalists and entrepreneurs is a close one that, despite the legal documentation involved, is based on trust, understanding and commitment. This relationship is collaborative.

Despite this understanding of venture capital, agency theory has been the primary theoretical tool used in analysing the relationship between venture capitalists and entrepreneurs. This has been particularly true when modelling the contracts between the two parties. For example, both Bowden (1994) and Cooper and Cornelius (1994) discussed the bargaining disparities (game) between parties to the contract and the impact of information asymmetries on the (usually better) outcomes for experienced venture capitalists over less experienced entrepreneurs at the outset of their relationship. Bergemann and Hege (1998) go further, summarising research into the staging of financing rounds and model the implications of information asymmetry on both the security instruments used and the timing for the replacement of the entrepreneur. Markman, Balkin and Schjoedt (2001) discuss the role of boards of directors in monitoring the development of new ventures, with particular emphasis on the composition of the board of directors and their immediate impact on innovation in the firm. Yoshikawa, Phan and Linton (2004) discuss contingent payment and other methods of aligning interests between investors and entrepreneurs (or managers of new high technology ventures) in order to secure high payouts at the end of the investment process. While, finally, Lerner (1994) empirically examined the influence of venture capitalists on the timing of new venture public offers and who benefited from these.

This paper is used to examine the agency perspectives, presented above, following the development of a single new technological venture from its inception to public listing. Agency explanations for events, particularly those inaugurated by the board of directors and documented contractually are contrasted to alternative theoretical perspectives that, perhaps, offer a deeper understanding of events as they occur throughout the various stages of this venture's development.

Outline of this paper

The following section provides information on the sources used to gain information for a longitudinal case study where the author was not continuously present. The next, and longest section of this paper is descriptive. It outlines the history of a high technology firm from conception through to public listing. The case covers a period of seventeen years in less than 3000 words, hence much detail is lost. The case is presented chronologically, highlighting the changes in ownership that occurred and the role adopted by the board at various crisis points in the development of the firm. When covenants were imposed on the entrepreneurial team, these are mentioned although the decision making, from the time of the venture capitalist's entry, appears to have been dominated by the board. Following Hillebrand *et al*. (2001, 653) the case can only be generalised through logical analysis, not statistics. The analysis follows the presentation of the case, demonstrating at what points agency theory usefully contributes to our understanding of the behaviours of

participants and at what points it fails to do so. The paper is then concluded with a summary of what has been learned from the case study and possible lessons for Finnish venture market participants.

Section II: Data

The case is traced through documents made available by the lead venture capital investors. These ranged from a single page agreement to sizable (354 pages) legal documents. Some background information has also been made available through interviews with two of the major players in the enterprise, both venture capitalists.

Multiple legal agreements from the company covering the period between 1980-1997 were analysed. Included are descriptions of the securities to be used, the valuation of these securities, and where applicable, the collateral supporting debt. Other elements of the agreements, including the specification of particular covenants, are tailored to the needs of the venture capitalist and the entrepreneur negotiating the agreement. These agreements demonstrate that the venture capital contract evolves over time with agreements reached piecemeal and in stages during each new round of financing. Sub-deals also occur in between financing rounds.

The case concerns a manufacturer of hardware and software to control particular aspects of industrial robotic computer systems. The documentation demonstrates that, while having gone through both positive and negative phases, the firm reached public offering through a merger. Considering that venture capitalists ideally strive to create companies that can eventually go public, one could submit that the case represents a successful venture.

The names of the portfolio company, venture funds and their representatives have been altered to ensure participant confidentiality. Information about the dates and purposes of meetings between parties has been taken from diaries maintained by investors. The actual working agreement, closing documents including stock purchase agreements, representations and warranties, financial statements, articles of incorporation, articles of memorandum (by-laws), opinion of council, employee agreements and written communications were all made available by the lead investors.

Section III: The Case of Advanced Systems

Entrepreneurs

John Roberts (inventor) was a computer consultant working both with hardware and software. The concept that became the basis of Advanced Systems was developed during the period he was employed as a consultant with GSRI (a government sponsored research institute). Much of the work on the system was undertaken in Roberts' own time and, after unsuccessfully attempting to persuade GSRI to build the proposed system, Roberts took the concept to his partners in another small enterprise, Michelle Green and Gene Francis. Francis (CEO) agreed to add the system to their product line.

Francis, while a full time employee with GSRI, had also founded and was president of a small manufacturing company. This company had two part time employees, Michelle Green (marketing) and John Roberts (consultant). Francis had previous entrepreneurial experience building and profitably selling another small manufacturing concern which had been backed by SBIC Ltd, a venture capital fund.

DISCUSSION

Negotiators

Numerous venture funds were involved with Advanced Systems during its development. The lead investors were SBIC Limited Partnership and Private Capital Associates. Later, three subsidiaries of the mega fund, Kingsgrove Partners and Central Mega Fund also invested in the enterprise. Two additional venture funds, Rainbow Venture Capital and Corporate Venture Capital, made small investments during the final round of capital infusion[1]. The representatives of these firms were all experienced venture capitalists and negotiators with an average of between ten and fifteen years apiece in the industry. All had previous experience as senior managers in large corporations.

Getting Acquainted: Autumn 1980

Preliminary discussions took place between John Roberts (inventor and entrepreneur) of Advanced Systems and Tim Marshall of SBIC Limited as well as between Gene Francis (entrepreneur) and Greg Dean of Private Capital Associates. Both entrepreneurs went to venture capitalists that they had known from previous encounters, to examine the potential their project had for this type of investor. It was determined that, once the project was beyond the conceptual stage, investors would be interested. More importantly, the entrepreneurs became convinced of their need for the skills as well as the capital input available from investors.

The parent enterprise, with Gene Francis as President, had nine shareholders some of whom were interested in subscribing to an investment in the new technology. Discussions between the entrepreneurs and potential venture capital investors touched on such issues as whether these existing shareholders could supply sufficient capital for development, the time schedule for development, and legal problems which might arise out of Roberts' and Francis' association with GSRI. No one, including the president of GSRI, really knew who owned the technology as no patents existed and development appeared to be simultaneous, with both Roberts and a colleague at GSRI working off each other's ideas.

Pre-Investment Negotiations: February 1981

Roberts believed that technical problems were resolved and allowed Francis to begin serious negotiations with potential investors. The first set of discussions took place at a demonstration meeting. Those present were the entrepreneurs, Richards and Marshall from SBIC Limited and Dean and Lucy from Private Capital Associates. The venture funds had co-invested on previous occasions. Their representatives had been kept familiar with the venture's development and found that the enterprise and their firm's investment criteria were well matched. Both investor groups were interested in unique technologies and were willing to invest at this early level of development provided the entrepreneurs were willing to consent to a fairly high level of external direction.

First Investment Round: July 1981

A valuation of the ongoing parent enterprise was agreed. The entrepreneurial team owned 65% while six additional shareholders held the remaining 35% of the company. The two-man board of directors consisting of the lead entrepreneur, Francis, and General Richard Baker (an external shareholder) was enlarged to three dropping General Baker and substituting two representatives of the venture capital investors. The venture capital contribution purchased 24% of the company (with five year warrants repre-

senting another 10% available at a reduced cost) and provided them with board control. Membership on the board was specified for one year, i.e., neither investors nor entrepreneurs could change their representatives.

The new capital was to be drawn on by Roberts, as needed, for costs, including wages on an hourly basis. Roberts was to build a demonstration machine (prototype) at home. This took him about 7 months. The capital was provided with the understanding that the demonstration/development period would be no longer than one year. When the prototype was completed the investors would cover a second round in conjunction with other venture capitalists. During the development period each venture investor contacted between 10 and 15 other players nationally with six expressing interest in co-investment.

New Stakeholders – Second Investment Round: April 1982

SBIC Limited, Private Capital Associates, Kingsgrove Partners and Central Mega Fund purchased another 23.5% of the company, reducing the entrepreneur's ownership from 40% to 30.5%. While SBIC Limited and Private Capital could not exercise their warrant rights without lowering the entry cost for the two new venture groups; they did retain their warrants and gain an additional right to further shares. The new venture investors also obtained 5 year warrants giving the syndication of investors a potentially much greater hold on the company (They now held 47.5% of the company).

The board of directors was expanded with SBIC Limited, Private Capital and Central Mega Fund each taking a seat. Kingsgrove Partners were given a permanent right to attend meetings but no voting board position. The original company was given two seats on the board and chose to again use General Baker, whose 15% ownership in the original firm had now been reduced to under 2%. His re-entry was welcomed by the venture capitalists, who saw in him not only dedication and intelligence but also a link with a large potential (government) market for the product. He, too, was given future ownership rights through 10 year options.

Covenants included an agreement requiring Francis to pool his personal shares with those of the three venture capital investors in any votes for board membership. Two other covenants, salary restrictions and capital spending limitations, were also put in place.

Recruitment and Expansion: 1982

Advanced Systems, in June of 1982 leased larger facilities and began to expand considerably. They employed technical specialists, many of whom took a portion of their recompense in the form of options. Green and a number of the original manufacturing firm investors split off from Advanced Systems, preferring to avoid the risk associated with the new developments. A new marketer, replacing Green, encouraged programmers to concentrate their energies on the needs of customers whose projects were interesting and appeared to be potentially profitable. By October of 1982, however, it became apparent that these customers could not afford to purchase the final product.

Additional technical difficulties were also arising and were laid at the feet of Francis. The board began to look for an alternative manager, better able to understand the requirements of software development. In December of 1982 they began negotiations with Adrian Johnson. Johnson had a reputation as a successful entrepreneur. He had founded, and eventually sold,

a business manufacturing data systems that, as a measure of his success, had made him a multi-millionaire. For joining the company, Johnson received options for 2% of the company. He replaced Francis as chairman of the board. His was given ten year options and additional option bonus plans were also created for other key employees.

The board now consisted of Adrian Johnson – chairman, Tim Marshall, George Lucy, Geoff Kennedy, Gen. Richard Baker and Gene Francis. Francis maintained his position as President while Roberts, the inventor, became Director of Research. This board was maintained throughout the next round of financing, despite an increase in the number of venture investors.

Third Investment Round: December 1983

The third round of fund raising took place in the end of 1983. The value of shares and options continued to rise. Employees, Johnson and previous shareholders all participated in this round of financing. Additionally, two pension funds came in at this stage as follow-on investors. They imposed no new conditions on the operations of the business. One of the pension funds, Private Pension, was newly formed and making its first venture investment. State Pension Ventures had co-invested with one or more of the professional venture capitalists in the past. Both were satisfied to leave control in the hands of the venture capital lead investors. Other Investors, trusts and individuals, purchased shares in this and the next round (the information available does not allow a distinction to be made).

Corporate Restructuring: April 1984

Francis recognised that his forte lay in the early developmental stages of new companies as did the investors who knew him. When the board finally asked Francis to step aside in favour of Johnson he stayed on only another three months, until another new venture opportunity arose. There was no acrimony in the decision and he remained a shareholder.

Johnson, while willing to take on the presidency, wanted a guaranteed percentage of ownership in the company in perpetuity. He settled for 8% through the next round of fund raising. He also received shares of restricted stock that were to be repurchased by the company should Johnson leave its employ.

Upon Johnson taking control many of the problems in the company were ameliorated. Johnson also sought larger customers and additional investors, finding both. Two of these new clients, together, represented 70% of the world market for such goods. Based on their interest, Advanced Systems expanded again.

Fourth Investment Round: December 1984

Due to Johnson's efforts, a fourth round of funding took place in December of 1984. Two manufacturing companies purchased shares which had increased in value from an original $2.00 to $9.00 apiece over the 3 year involvement of venture capital investors. Both companies took seats on the board of directors, now expanded to eight men. Company B also received five-year warrants exercisable at $12.00. This gave Company B the potential of owning 30% of the venture should they exercise their warrants.

Conditions on this investment included an agreement, by Company B, that the technologies developed by Advanced Systems for Company B would remain the property of Advanced Systems. Advanced Systems, however, agreed they would not sell the technology to any manufacturer in a similar line of business for a period of three years.

Two new covenants were also included in the investment agreement. The first was an anti-dilution provision for all shareholders participating in this and the previous financing round. The second offered shareholders registration rights at such time as 51% preferred public listing to another private offering and provided a minimum level of capital was to be raised.

Concurrently with Company B's agreement with Advanced Systems, it invested in four other competitors. Company B then ranked the development companies giving each a development contract that would stretch their capacity to its limit. At the next round of funding for Advanced Systems, Company B was asked to either exercise its warrants or allow for dilution of its interest in the venture. Company B declined to exercise the warrants and was diluted.

Retrenchment: June 1985

Up to this point, the value of Advanced Systems had been growing progressively. Throughout the early part of 1985 manufacturing accelerated to try to satisfy the needs of the two large customers found by Johnson. These two firms, however, ran into difficulties of their own and both withdrew their support from Advanced Systems. Given that nearly half the people working for the firm had been committed to research for these two customers, their withdrawal created financial distress for the venture. By September, Advanced Systems was running out of capital.

Fifth Investment Round: September 1985

Another round of fund raising took place in September of 1985 raising $1,000,000 (one million dollars) from existing shareholders through notes with warrants. The notes were for $6.00 apiece with attached warrants at $0.01. Companies A and B waived their warrant rights and, as with all other non-participating shareholders, signed waivers of their rights to maintain their equity and voting interest. No registration rights or rights of first refusal (anti-dilution rights) were created with this contract. All venture firms participated as did Marshall personally. Interest on these notes was payable monthly at 12% per annum. Adrian Johnson maintained his 8% interest in the company through this interim financing round.

The one million dollars raised was placed in an escrow account by investors. Approval for any capital expenditure had to be obtained by management through the remaining venture fund directors from State Pension, Central Mega, Private Capital and SBIC.

Bridging Finance: December 1985

Toward the end of the year it was necessary to raise more capital through two small rounds of bridging finance. These rounds raised $100,000 and $120,000 respectively. Investors included: Private Capital Associates, Central Mega Fund, Company A, State Pension and SBIC Limited. The bridging loans, along with the September 1985 notes from these holders and from Marshall and Kingsgrove were rolled over into convertible debt financing in February of 1986.

Second Restructuring & 6th Investment Round: February 1986

All previous holders of company debt surrendered their notes in return for new debentures plus warrants of equivalent value. Company B became re-engaged, exercising existing warrants. Company A contributed new capital as well as converting previous bridging finance from the previous round to the new debentures.

Kingsgrove Partners Inc., previously holding no debt, contributed. Out of the total fund raising ´just over half was new capital. Debenture conversion would be automatic if the company went public at $3.00 per share or more or if a private placement took place and 51% of the debenture holders agreed to the conversion. Warrants could be exercised at any time up to a ten-year limit. In the event of a share price increase or decrease, the number of shares purchasable would be varied to maintain the value at $1.10. All previous investors would be diluted by this round of financing if any of the new debentures were converted or warrants exercised.

At this point the authorised capital stock consisted of 7,000,000 preferred shares (none issued) and 15,000,000 common shares of which 2,609,520 were outstanding. A total of $1,507,264.62 was held as equity.

Forced Conversion – Seventh Investment Round: November 1986

Nine months after the last fund raising an extremely dilutive round took place with convertible preferred shares selling at $0.52 per share for new shares. In order to obtain new funds, current debenture holders were forced to convert their debentures to stock at $0.82 per share. As warrant rights were also associated with each debenture, these were allowed to be exercised for preference shares at the new $0.52 preference share price. The low price set for new, preferred shares, resulted from a reticence on the part of the majority of investors, to continue to place new funds with the company. Only three debenture holders, Private Capital Associates, State Pension Ventures, and Phil Richards (rather than SBIC Ltd.) participated. Tim Marshall also purchased shares at the new rate.

As Johnson was unable to maintain his pro-rata ownership in the 1986 round, he quit and was replaced by George Lucy (from Private Capital Associates) as acting President while Richards (from SBIC Ltd.) became Chairman of the Board. Marshall, while maintaining his investment in the firm, withdrew from the board to open his own venture fund. The company was forced to repurchase Johnson's restricted common stock at $2.50 per share (the basic warrant price established with Company B in the earlier 1986 round of financing).

Participating, voting, convertible preference shares were issued in two categories, both having identical rights apart from their liquidation value and conversion price. The conversion prices for both types of preferred shares were adjustable, with discounts, depending upon the underlying common share price. All rights previously provided to shareholders, registration rights and anti-dilution provisions applied to this issue.

Emergency Eighth Investment Round: May 1988

The company's lowest point came in May of 1988 when a new fund raising round was required and capital could only be raised, for preferred shares, at $0.0875 per share. Long standing investors agreed to retire some debentures as well as purchasing new shares in order to keep Advanced Systems going through one more fund raising. The round was meant to raise $1,000,000 of new funding as well as to convert $500,000 in debentures and interest. Two new venture companies, Rainbow and Corporate Venture Capital agreed to enter, but the offering was under subscribed by $65,000.

SBIC Limited, coming to the end of the term of its limited partnership, declined to in-

vest. At the end of 1990 the shares held by SBIC Limited were picked up by three individuals within that fund for $2.00 per share. The issue of 16,575,338 preference shares was made possible by an amendment to the company's articles of incorporation authorised by its board of directors. The amendment authorised Advanced Systems to issue 105,000,000 shares with a par value of $0.01 per share, divided into two classes: 65,000,000 shares of Common Stock and 40,000,000 of Preferred Stock. The board of directors could prescribe relative rights associated with any issue of preferred stock. These rights remained the same as in previous issues with only the liquidation and conversion price altered to reflect the $0.0875 cost per share.

Shortly after the under subscribed funding round, four other companies, representing the only competition for Advanced Systems, went out of business. Company A and B as well as the clients of competitors turned to Advanced Systems. Advanced Systems broke even in 1990 with sales of $4,000,000. Projected Sales, in 1991 of $6,000,000 were exceeded. The company had a reverse stock split converting all shares to common shares at a rate of one new share for ten old shares of any kind. By 1993 revenue of $10,000,000 and a profit of $1.1 million had been achieved. Profit for the company continued to grow, reaching $1.5 million in 1994 and $2.6 million in 1995. During 1996 a merger agreement was negotiated with Listed Company with a share exchange valuing Advanced Systems' shares at $15.50 each. Before the merger could be confirmed, Advanced Systems' sales dropped and Listed Company's value increased. A new agreement, drawn up in November 1997, was negotiated and consummated on December 1, 1997. Each share of Advanced Systems stock was traded for 0.3046 shares of Listed Company's stock providing a value of $12.42 per share.

Section IV: Analysis

Agency

Agency theory began with Coase's transactional theory of the firm (Coase, 1937). Alchian and Demsetz (1972) extended this work incorporating the problems associated with monitoring and controlling behaviour. Jensen and Meckling (1976) extended it further and incorporated concepts of agency cost. The prime consideration of agency theory is the relationship between a principal and an agent.

The legal conception of agency is expressed in the maxim 'Qui facit per alium facit per se' (he who acts through another is deemed to act in person) and an agent is a person who is able, by virtue of authority conferred upon him to create or affect legal rights and duties as between another person, who is called his principal, and third parties. (Latimer, 1997, 778)

The term 'principal' and the term 'agent', as used here, are drawn from the law and issues involved in property rights and do not necessarily represent the meanings of these terms as used by modern agency theorists. However the agency relationship, as theorists do apply the term is usually governed through a legal contract that specifies the actions to be taken by the agent *on behalf of* the principal. That is, while the authority to bind the principal (usually shareholders) contractually is not given to the agent in the corporate context there remains the authority to act in ways that impact upon the principal, creating what has been termed "moral hazard". A vital component of the relationship, if agency exits in venture capital/portfolio company dyads, is that the venture capitalists can be seen to have granted authority to the

entrepreneur. Authority is critical it is the essence of agency (Fridman, 1990, Carvan, Goolely and McRae, 1998). Authority must flow from the principal to the agent, that is, in a single direction and vertically from the top down. Once authority is granted the principal becomes a passive player who, apart from monitoring the appropriateness of the agent's actions, has little to no other involvement. Because of their lack of direct involvement, a risk arises of "information asymmetry" between the principal and the agent.

Advanced Systems and the early relationship: Unlike corporate non-executive board members, the investors in advanced systems were not simply monitoring activities to guard against potential mis-use of shareholder funds, they were actively involved in raising further funds through their own networks. The original non-executive board members legitimised the activities of the entrepreneurs. Their experience and reputation drew other investors into the fold.

Their investment was made at a very early stage in the development of the enterprise, prior to any actual prototype being available. This was possible due to previous relationships existing between the investor groups and the entrepreneurs. That is, both had developed an understanding of and trust in the other. The entrepreneurs were willing to take external direction because they had experienced this direction as beneficial in the past. The investors were willing to give the inventor time and capital for development without much restriction or any oversight because they had previous experience with him and with his CEO. Similarly, as the prototype was developed and the company matured, the investor syndicate was willing to leave many operational concerns in the hands of the lead investors because they had previous experience and knowledge of their judgment and abilities.

Thus, in the early stages of this venture's development, relationships rather than covenants were important. Past interactions, recognition of ability or competence and shared goals are all considered antecedents to trust (Brower *et al*., 2000) and trust between the parties reduces relational risk and associated transaction costs, including prospective agency costs. *Active* non-executive directors, sitting on the new firm's board, contributed to its early development through their networks and through their advice. An exchange of resources, investors and entrepreneurs each contributing to the venture in areas of their own expertise, better describes activities than does the top down oversight of developments upon which agency theory is predicated and modelled in venture capital.

The expanding company

As the company grew the role of the non-executive directors, the venture capitalists in particular, expanded. According to Barrow (2001, p.34) non-executive directors in high technology small enterprises, have key roles that correspond to the value adding framework provided by Sapienza *et al*. (1996, 440) as: 1. strategic involvement (eg budgeting, preparing the venture for harvest), 2. interpersonal relations (eg resolving internal conflicts) and 3. networking (eg links with external experts). These expanded roles were pursued by the non-executive directors in Advanced Systems. None of these roles, however, are key operational ones and inefficiencies such as work on particular customer projects, projects that could not be paid for, increased. Relationship financing,

dominated according to Bergemann and Hege (1998, p.723) is undertaken to reduce venture inefficiencies and "transfer[s] substantial control rights to the venture capitalist". As information asymmetries grew, the need to monitor activities and to align the interests of key employees and managers with those of shareholders resulted in an increased use of restrictive covenants, in incentive options and in the replacement of personnel. All of which are commensurate with the agency perspective.

As the company grew a settlement was negotiated with Green for her departure and the spin-off of the new venture from the parent manufacturing firm. Francis, the CEO, was replaced by a board-recruited appointee more able to manage a growth company. No conflict arose over this appointment. Francis had never seen himself as a manager of a growth company; he liked and was good at starting up new firms. The process was open and seen by the entrepreneurial team to be procedurally just. Francis kept his shares in the firm. However, the introduction of corporate shareholders to the board and the relative independence of Adrian Johnson during this period did limit the role of non-executive external directors to the traditional one of monitoring management activities.

Crisis and Retrenchment

The crisis in the development of Advanced Systems is related to the pursuit, by Company B, of its own interests over those of Advanced Systems. Determined to have a window on the developing technology, they bought an interest in all five entrepreneurial ventures that were working on it. As indicated by Markman, Balkin and Schjoedt (2001), these external directors spurred innovation but to the detriment of the firm. Self-interest (a moral hazard) was also evident on the part of the recruited CEO. When the firm ran into difficulties, he departed on beneficial terms that he had previously negotiated, again to the detriment of the firm. Thus, despite the application of theoretically sound principles, as described by Yoshikawa, Phan and Linton (2004) and meant to align the interests of hired management with those of shareholders, as well as a myriad of introduced covenants, the firm was nearly bankrupted.

The failure of the governance applied to Advanced Systems at this point had a great deal to do with individual self-interest but also with external factors beyond the control of the board or management. The firm was evolving in a competitive market where many players were attempting to achieve the same outcomes. The company was receiving lower and lower valuations in every funding round. Many investors lost faith and withdrew, others attempted to hold their interests steady while the original two investor groups continued to invest despite the losses already entailed in the project.

The behaviour of investors, during the crisis in the development of Advanced Systems, is theoretically closely aligned to prospect theory as developed by Kahneman et al. (1991). The reference point for determining losses/gains by each investor group can be assumed to be the cost at which they purchased their original equity. Those who bought shares at $9.00 were reluctant to participate when further equity was possible to obtain for warrants costing $6.00. However, the original investors, having entered Advanced Systems at only $2.00 per share participated readily, despite having experienced the same downturn in company expectations. Further, the original investors, perhaps having committed more individually or having more of

their reputation and esteem tied to the venture, were reluctant to write it off and continued to support it as it's value was reduced even further. The strength of this loss aversion or "disposition effect" is explained in behavioural finance studies of investors' decisions. That is, investors hate to lose even more than they like to win.

Survival

The need for capital, and with Johnson's departure the need for strategic management, blurred the distinctions between members of the board of directors and company executives. While almost all major investors were participating on the board, operations were being supervised by two of the previously non-executive directors.

The venture survived due to a combination of luck and stubbornness on the part of long-term board members. Their networks were sufficiently large to continue to bring in sufficient funds to keep the firm operating until the competition collapsed. At that point, being the only firm with a unique capacity and due to the reputation of the investors, a merger led to the public listing of the company. Roberts and other early employees continued in the employ of Listed Company.

The timing of the listing was not preplanned by the investors. They had long been seeking a means of exiting the venture and grasped the opportunity when it arose. The terms of the agreement were good due to the skills of the negotiators – all of whom had been through this before.

Conclusion

Ultimately, this case underscores the difficulty of trying to describe the complex interactions that take place in a dynamic system under a single static theoretical mould. The changing position of participants to the original agreement can be used to demonstrate the existence of relational exchanges between participants based upon social capital. The role of trust and the need for procedural justice are highlighted in the early stages of the firm's development. The agreement between the original parties was formalised with "(1) mutual respect for the capabilities of the other, (2) the anticipation of deepening reciprocal trust with the other and (3) the expectation that interacting obligation [would] grow over time" (Schriemsheim, 1999, 77–78).

Equally reasonable explanations of the development of the venture can be made from an agency perspective as the board expanded and a new manager was brought into the venture. Agreements were continuously used to provide more and more equity to participants in the firm. Goals were not congruent and the firm experienced distress. At this stage, the choice to participate or withdraw and the incentives for doing so are better explained by the behavioural finance literature than by any other theoretical perspective.

The board of Advanced Systems was small and, throughout much of its pre-merger incarnation, intimately involved in the operational decision process. The entrepreneurs sought out venture capitalists they trusted, with whom they had had previous profitable relations and who, most importantly from the entrepreneur's perspective, could be expected to provide the skills and (capital) networks required for success. The investors were able to draw on established networks to restructure the firm and substitute key players at key points in the firm's development, thus not only advising but replacing management as and when necessary.

Contracts between investors and entrepreneurs managing Advanced Systems were not

coercive. While they were used to regulate the exchange relationship in terms of ownership and financial control, they were not, originally, used to differentiate between the parties to the exchange. Instead, both entrepreneurs and investors relied on their mutual respect and trust to strive for an increase in the value of their investment. When the firm got into strife, it was the investors, primarily those who had been with the venture from the beginning, who found the means to support the firm and stave off economic collapse. Given the lack of passivity in the lead investors, given their constant and involved support throughout the life of the venture, agency theory does not seem to be a realistic perspective from which to view the majority of the developments in this case. Instead, elements of trust, relational leadership and resource exchange categorise the early periods of the venture's development, agency theory seems appropriate throughout the expansion phase but the final crisis and survival as well as the timing of the exit all seem to be better understood when viewed from the perspective of behaviourists.

This case highlights the fact that the most common theoretical perspective used for examining venture capital/portfolio company relations, agency theory, limits our understanding of the industry forcing it to fit the neo-classical financial economists' mode of thinking. We should, instead, examine the various stages of venture capital involvement with portfolio companies without a preconceived theoretical lens.

For market participants, particularly those in Finland who have traditionally taken minority positions in expanding rather than start-up firms, this case demonstrates the difficulties that can be faced when dealing with very early stage companies who require managerial as well as financial assistance. The investor cannot simply rely on monitoring the activities of entrepreneurs but must become involved with their portfolio companies. Persistence, networks, good communication skills and some degree of luck are all required if an idea is to be guided through all potential pitfalls that may confront the developing firm. ■

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• Appendix A: Venture Capital Company Characteristics

SBIC Limited Partnership:
founded: early 1970's
number employed: 8
capital under management $30,000,000
usual size of investment $100,000-300,000
investment preferences: first stage, second stage later stage, LBO or acquisition,
investee must be within 2 hours reach of main office
extra charges: closing fees, service fees

Seed Company Inc.:
founded: mid- 1970's
number employed: 2
capital under management $10,000,000
usual size of investment $100,000-150,000
investment preferences: seed and start-up,
investee must be within 2 hours reach of main office
extra charges: founder's shares for services

State Bank Inc.:
founded: early 1960's
number employed: 3
capital under management $3,000,000
usual size of investment $100,000-$150,000
investment preferences: seed,
start-up, early expansion
extra charges: none

Rainbow Venture Capital Corporation:
founded: early 1980's
number employed: 3
capital under management $3,000,000
usual size of investment $300,000
investment preferences: early expansion
extra charges: none

Corporate Venture Capital Co.
founded: early 1980's
number employed: 2
capital under management $2,000,000usual size of investment $250,000
investment preferences: supplier to the company, racial minorities
extra charges: none

Private Capital Associates
founded: late 1960's
number employed: 6
capital under management:$100,000,000
usual size of investment:1,000,000
investment preferences: start-up, early and late expansion, buy-out or acquisition
extra charges: none

Kingsgrove Partners, Inc.
founded: early 1970's
number employed: 30
capital under management (with associated companies) $400 million
usual size of investment: $300,000-$1.5 million
investment preferences: start-up, early and late expansion, buy-outs
extra charges: none

Central Mega Fund
founded: early 1960's
number employed: 20
capital under management: $270 million
usual size of investment: $750,000
investment preferences: start-up through leveraged buy- outs, prefer geographical proximity
extra charges:none

Private Pension Ventures
founded: mid 1980's
number employed: 2
capital under management: $3,000,000
usual size of investment: $250,000
investment preferences: co-investment with other lead investors only
extra charges: none

State Pension Ventures
founded: early 1980's
number employed: 6
capital under management:$50,000,000
usual size of investment:$500,000
investment preferences: start-up through leveraged buy-outs, prefer co-investment with other lead investors
extra charges: none