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Title: Issues in the Venture Capital Investment Process: The Investee Perspective

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Abstract: Venture capital came into increased prominence in the 1980's as records funds became available for start-up companies. While investment has dropped off in recent years the topic remains relevant for engineering managers, particularly as many founders of venture-funded companies come from engineering backgrounds. Accordingly, this paper examines the venture capitalists, equity dilution during financing rounds, and the role of the venture capitalist in management of the venture. These are studied with the help of previous research and direct input from venture capitalists and investees. Findings from the research are described and their implications for the entrepreneur discussed providing a comprehensive look into the investee's role and activities in the investment process.

Issues In The Venture Capital
Investment Process: The Investee Perspective

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EXECUTIVE SUMMARY

Issues in the Venture Capital Investment Process: The Investee Perspective

Venture capital came into increased prominence in the 1980's as record funds became available for start-up companies. While investment has dropped off in recent years the topic remains relevant for engineering managers, particularly as many founders of venture-funded companies come from engineering backgrounds. Accordingly, this paper examines the venture capital investment process as seen through the entreprenuer's eyes. Important issues for the investee include: determining the suitability of venture capital firms, the characteristics of funded business plans, evaluation criteria used by venture capitalists, equity dilution during financing rounds, and the role of the venture capitalist in management of the venture. These are studied with the help of previous research and direct input from venture capitalists and investees. Findings from the research are described and their implications for the entreprenuer discussed providing comprehensive look into the investee's role and activities in the investment process.

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1. INTRODUCTION

The rise in venture capital investment in the 1980's along with the spectacular success stories of some notable venture-funded companies has garnared the topic of venture capital much attention in recent years. While only a small percentage of new companies are funded by venture capital firms [1,2], the special characteristics of venture capital have attracted business researchers' interest. Venture capital plays an important role in commercializing new products and ideas and as a result influences economic and cultural change. Venture capital investments favor high technology enterprises thus contributing to scientific advancement and the U.S.'s global competitive edge. Venture capital symbolizes for many how private enterprise can operate to simultaneously benefit society and reward the enterprising. These issues and others also make venture capital a topic of importance to the engineering manager.

On a broad level, venture capital impacts the engineering manager through its overall contribution to technological, economic and social change. This influence is due largely to venture capitalists' proclivity towards investments in innovative enterprises. Innovative companies are selectively targeted by venture capitalists because their state-of-the-art technology or know-how offers the kind of a competitive advantage that results in accelerated growth. These growth enterprises not only provide jobs for communities, but the products they produce can have a significant impact on society. Apple Computer comes to mind as an example of a venture capital financed company which has influenced society's thoughts and working practices.

The venture capital industry impacts engineers through its seeking out and support of leading edge technology. This process encourages basic research, technological transfer, new product development, and entrepreneurilism. All of which can lead to new and exciting opportunities for engineers. The venture capital process involves many activities which engineering managers are familiar with. These include: technology assessment, resource allocation, strategic planning, and project management.

On a more direct level the topic of venture capital holds an interest for the engineering manager because it is very likely that the entrepreneur receiving venture capital will come from the engineering or scientific fields. High-technology firms attract a disproportionate share of investment commitments from venture capitalists. Founders of high technology firms more often list engineering or R&D as their primary background [3]. For many engineering managers their exposure to venture capital will be as investee or as an employee at a venture funded company. Accordingly, this paper looks at the topic of venture capital from the perspective of the investee.

A review of the literature on venture capital reveals that there was increased research activity in the field throughout the booming 1980's. The majority of these studies are descriptive in nature and focus on venture capitalists and their activities. A 1988 summary of venture capital research lists the main subtopics covered as follows: the portfolio of venture capital firms, the investment decision, venture capitalists' operations, investment strategy, impact on the entrepreneur, and the relationship of public policy and venture capital [4]. Data for this research has come mainly from venture capitalists. The research has not specifically targeted investees leaving a multitude of questions cess.

This paper proposes to address these questions by examining the investment process from the investee point-of-view. This will hopefully, increase understanding between investees and venture capitalists, and aid in both parties' decision-making.

The issues facing fundseekers can be studied by accompanying the investee through the venture capital investment process. From the investee's perspective this process is as follows:

1)	Search for capital	-venture founder(s) search for start-up or expansion capital
2)	Evaluation by Venture Capitalists	-venture's potential for success evaluated by venture capitalist(s)
3)	Negotiation	-terms and structure of the investment are negotiated by investee and venture capitalist(s)
4)	Management	-investee manages growing venture, works with venture capitalist to meet venture goals
5)	Liquidation of venture capitalist's investment	-invested company goes public, gets aquired by another company, buys out investors, or has assets liquidated

(modified from Tyebjee and Bruno [5])

This paper discusses the first 4 of these phases, focusing on entreprenuers involved in start-up ventures. This paper looks at each of these investment phases and examines the issues unique to venture capital investment. Previous research is presented and its implications for the investee discussed. For simplicity, discussion is oriented towards individual entreprenuers rather than entreprenuerial teams, though nearly all issues discussed are relevent to both.

2. THE SEARCH FOR CAPITAL

Entreprenuers turn to a variety of financial sources to fund their enterprises. These include, personal savings, family and friends, private individuals, venture capital groups, state-funded investment corporations, Small Business Investment Companies, commercial banks, and public stock offerings. Development contracts and corporate partnerships are another potential financing means. The decision to seek venture capital as a funding source as an alternative or in addition to these other resources is just one of the decisions confronting the entreprenuer as he looks for capital for his new enterprise. Once he makes the decision to go after venture capital, he then must ready his business plan for evaluation, and then select and contact the venture capital firms best suited for his venture. Several questions come up when discussing these activities: Why seek venture capital rather than other sources of capital?, How should a business plan be written to maximize a venture's fundability?, On what basis are venture capital firms deemed suitable for a company?, What other means can investees use to increase their chances of receiving capital?

-The venture capital decision

The choice of venture capital over other sources of funding depends on a complex set of interrelated factors. Among these are: amount of capital needed and time frame, personal characteristics of venture founders, and the development stage of the enterprise.

One reason why entreprenuer's turn to venture capital is that they simply can't get funds from anywhere else. Start-ups' lack of assets and proven cash flow makes them ineligible for conventional bank loans. The entrepreneur's personal funds may not be adequate for his venture's requirements. Capital from friends and family may not be forthcoming and private individual investors may be difficult to find.

The amount of capital needed may determine if the entreprenuer contacts a venture capital firm or not. Start-up companies facing serious product demand need expansion capital of this magnitude to set-up production facilities and assemble marketing and sales staff. Companies in high technology businesses require substantial funds for product development and may go years before turning a profit. In general, entreprenuers' can obtain greater amounts of capital from venture capitalists than from other sources [1,3]. Additionally, funds from venture capital firms will, in a bandwagon effect, help attract other investors to the venture.

Entreprenuers' also recognize that well-funded companies can pursue opportunities in ways that less-advantaged ones cannot. Thus, the decision to seek venture capital over other sources may be a strategic one. Entreprenuers are willing to relinquish equity in the belief that the large capital amounts received in exchange will give them a better chance in achieving their strategic goals. This belief is supported by Bruno and Tyebjee's 1985 study whiched looked at venture performance as a function of the source of capital and amount of equity relinquished. It was revealed that large capital infusions through equity exchange led to higher sales and employee growth in comparison to companies which recieved little or no outside investment.

This relates to venture capital 's essential appeal for many: the opportunity to make a great deal of money. The venture capital received by a company in its early stages offers the it the opportunity to achieve a growth rate not otherwise possible. When liquidated, the venture is then worth many times its original value. The entreprenuer gives up some portion of ownership, but does so with the expectation of receiving returns far beyond what he could have without the venture capital investment.

The personal characteristics and background of the entreprenuer play a role in the decison to seek venture capital. A small study by Roberts [1] indicated that entreprenuers who value "independence of action" are more likely to shun outside investment in favor of maintaining majority control of their enterprise. Venture founders with significant commercial work experience started their companies with a greater proportion of outside capital than inexperienced ones. Experienced entreprenuers may be more likely to seek out venture capital than novices due to their familiarity with the financing process.

Venture capital is attractive to some new companies for the "value-adding" services provided by venture capital firms to their investments. These services include, recruiting key personnel, arranging additional financing, securing consultants, and networking with potential customers and suppliers. For a new company with few resources this kind of assistance can be very valuable.

Entreprenuers also have strong reasons for rejecting venture capital as a funding source. Companies may recognize that they are not good candidates for venture capital due to their lack of growth potential. Some simply don't need funds of the magnitude venture capitalists are willing to offer. Entreprenuers with a strong desire to remain free of outside investors can often gear their enterprises to keep costs low. For example, a physician/entreprenuer with several strong product ideas, focused his efforts on his simplest product, a die-cut paper strip. In this way, he was able to develop and market the product with his own money and could use the profits to support development of his other product ideas.

Timing is another important aspect in the decision to seek venture capital. In recent years the bulk of venture capital has gone to companies undergoing second and later stage financing rather than brand new ventures. First-round financing of start-up companies made up only 27% of all venture capital investment last year, down from 35% in 1989, 42% in 1988, and 56% in 1981 [6]. Venture capitalists preference for later-stage companies coupled with an already high rejection rate (roughly 95% of all deals are turned down [2]), means start-up entreprenuers may be wasting their time going after venture capital. Entreprenuers deciding to seek venture capital need to consider whether being turned down will jeopardize ongoing efforts to attract additional investors.

-Writing the business plan

If after weighing the advantages and disadvantages of venture capital the entreprenuer decides to go ahead, his next step is to ready a business plan for the venture. For the entreprenuer his business plan is the primary medium for selling potential investors on his company. In it he must convince venture capitalists of the soundness of his product idea, while also offering market growth and financial projections which meet venture capital firms' high standards. Additionally, he must show why he and his team are the right people to make it all happen. The challenge facing the entreprenuer is to assemble and present this information in the most effective manner possible.

Research has shown that fundseekers can increase their fundability by following certain guidelines in writing their business plans. Macmillan, et. al., compared the characteristics of funded plans versus ones that had gone unfunded. They found several factors which differed consistently between the two types. Among their results:

- -funded plans' forecasted performance measures were on average lower than those of unfunded plans
- -funded plans featured more balance between functional sections (marketing, product, financial, etc. areas)
- -funded plans demonstrated a preferred level of detail in financial statements and a preferred number of adjectives per noun [7]

Plans with exceptionally favorable forecasts indicated to venture capitalists that the entreprenuer did not fully appreciate the business realities of the venture. The researchers advised business plan writers to compare forecasts with others in their industry and be prepared to explain any discrepancies. Equal attention to all areas of the business plan. The study also indicated that largest items in the income statement be 5 x the smallest and that there be on average one adjective per noun in the plan's text. Plans that are too flowery don't recieve serious consideration, while those with too few adjectives soon lose readers' interest.

-Venture capital firm screening

Once the business plan is ready the entreprenuer must determine which venture capital firms to contact. In choosing a venture capital firm or firms to work with investees list several criteria they evaluate, geographical location, reputation for interity, working style, support services offered, commitment, and expertise in business area [8,9]. From both the investee's and venture capitalist's viewpoint a close geographic location is preferred. Investees usually begin their search for a venture capital in their own area where their banking, accounting, and legal contacts are strongest. Local ventures are more likely to be funded by local venture capital firms as venture capitalists prefer the convenience and lower expense of having their investees nearby. Recognizing this, potential investees further the trend by actively courting close-by venture capital groups.

Investees also look at the working style of the venture capital firms they contact. Macmillan describes 3 different levels of venture involvement by venture capital firms, Laissez Faire, moderate, and close tracker involvement [10]. For entreprenuers who feel strongly about independently managing their own ventures working with a close tracker-type of venture capitalist would not be a good choice.

A venture capitalist's expertise in certain areas along with other types of support services he may offer can be important to an investee, especially in a very new venture where key management positions may not yet be filled. Investees look for venture capitalists who are knowledgeable about the market the investee plans to enter.

Investees often mention "long-term commitment" as a quality they seek in a venture capital firm [8]. Investees look for assurance that the venture capitalist will not cash out too quickly. They also want investors who are willing to back their venture through any rocky periods they may encounter. Investees want to know if the venture capital firm can be counted on for additional expansion capital in the future.

Start-up companies often look at a venture capital firm's record with previous start-up situations. Is the venture capital firm experienced in taking a seed stage company and helping to manage its growth into a market leader.

-Venture capitalist contact

A final aspect of the search process for potential investess are the methods used to position a venture for successfully obtaining venture capital. Of interest is what impact the initial contact method has on venture capitalists' view of a venture. Deals come to venture capitalists in three ways, unsolicited cold calls, referrals from sources in the venture capitalist's network, and through active searches conducted by the venture capitalist. As might be expected, cold calls are perceived by venture capitalists to be of lower quality on average than referrals [5]. The impact of this on the actual funding decision has not yet been studied, nevertheless this indicates potential investees may be able to increase their chances for funding by relaying their proposals to venture capitalists through a well-respected third-party.

Factors Influencing the Venture Capital Decision

-personal funds insufficient
-bank loans, other conventional sources unavailable
-venture capital investors provide larger sums
-venture capital attracts additional investors
-strategic aims require large initial capital base
-venture capital offers substantial capital gains at liquidation
-venture capital firms offer business expertise and other services

Start-ups' Venture Capital Firm Screening Factors

-funds availability
-close geographic location
-reputation for integrity
-working style
-degree of specialization
-record for commitment
-record with start-ups
-involvement with competing companies
-types of assistance offered

2. EVALUATION BY THE VENTURE CAPITALIST

The evaluation phase begins once the entreprenuer submits his business plan to a venture capital firm. Most of the activity during this phase consists of the venture capital firm evaluating the venture for its growth potential. Activities for the would-be investee over this period include, performing due diligence on the venture capital firm, pursuing other funding sources, and of course continuing to manage the venture.

Once the venture capitalist receives the business plan it is screened to see if it meets some basic set of criteria established by the venture capitalist. If it passes the screening process it is then subject to a more rigorous evaluation the venture capital firm's staff. It is estimated that for the 500 deals a venture capitalist may typically receive in a year's time 90% are rejected during the initial screening round. Of the remaining 10%, only 5 or 6 are found to be worth the venture capitalist committing funds to [2]. In addition to analysis of the venture's business plan, the venture capital firm conducts face-to-face interviews with venture principles, goes on site visits, and performs formal due diligence as part of the evaluation process. These activities will overlap with negotiations over venture valuation and deal structure.

The key issue for the entreprenuer during this phase then are exhibiting the characteristics venture capitalists deem essential in a funded venture.

-Screening criteria

The first step for the entrepreneur is to meet the venture capitalist's screening criteria. Among the variables assessed during the initial screening are: investment size, compatibility with the venture capitalist's portfolio, technology and market sector, geographic location, stage of financing, and managerial talent. Depending on the capitalization level of the venture capitalist's investment fund a deal may not get a second look if the magnitude of funds required aren't in line with what the venture capitalist wishes to provide. The venture capitalist's preference for diversifying across his portfolio will impact his decision according to the product sector and development stage of the venture. For the reasons discussed previously, close geographic location is preferred, especially if the venture capital firm will be the venture's lead investor. According to venture capitalists themselves, one of the key ingredients they look at during the screening process is the relative experience of the management team [5].

-Funding decision factors

If a venture clears initial screening it becomes subject of more intense analysis. Methods of evaluation vary with each venture capital firm as a range of criteria and methods are used to pick potential winners. Because of the importance of the the funding decision to both investor and investee, researchers have sought to identify those qualities venture capitalists look at in order to make the funding-decision. While the terminology varies from study to study, the funding-decision factors can be grouped into 4 main categories: management-related factors, market factors, product-related factors, and financial criteria.

Management-Related Factors

Of the four categories, management-related factors appear to have the greatest influence on the funding decision. Macmillian, et al. report that 5 of the top 10 criteria considered essential in a venture by venture capitalists related to managerial capabilities and experience [11]. Bruno and Tyebjee's survey found that venture capitalist's cited deficiencies in venture management as the cause for deal rejection in 1/3 of all cases [3].

Venture capitalists look closely at the personal characteristics of potential investees. As one writer notes, "The talent criteria, perhaps the most important quality a venture capitalist looks for in a portfolio company, is also one of the most difficult areas to assess." [13] Among personal characteristics considered most important were: persistance, leadership ability, and having understanding and acceptance of risk [11,12]. One source cited "the desire for personal wealth" as an important trait [13]. Venture capitalists also look for venture founders who are: self-confident, people-oriented, articulate, enthusiastic and honest.

Obviously, venture capitalists are concerned with the experience and skill level of the venture management team. Familiarity with the targeted market and technical expertise are highly valued. An understanding of finance and manufacturing can also be important. These factors may be less important to the funding decision as long the rest of the deal looks favorable and venture management displays a willingness to hire in order to fill any talent gaps.

Given venture management's importance in the funding decision, what can potential investees do to improve their eligibility for capital? Macmillan notes that ventures' business plans typically feature little information on the entreprenuer's characteristics [11]. Entreprenuers may strengthen their proposals by emphasizing in their business plan their capabilities as venture managers. Along the same lines, the entreprenuer can improve his chances for success if he is willing to take on strong team members, particularly ones with complementary skills and talents.

Another aspect of venture capitalist's regard for the role of management in venture viability is that management-related factors are strongly associated with the perceived risk of a venture[5,11]. Venture capitalists most often cite deficiencies in management as the reason for deal rejection [3]. One conclusion that may be drawn from this is that venture capitalists are more likely to focus on the presence of any negative qualities, rather than the intensity of positive ones. For the potential investee showing a lack of negative characteristics may be more important than having an oversupply of positive ones.

Product-Related Factors

A second group of funding decision criteria are those relating to product characteristics. Product factors considered most important by venture capitalists include: whether the product is an improvement over others, its patentability, whether it has demonstrated market acceptance, whether there is a functioning prototype, and the potential for future spin-off products.

Of these factors, a product's diffentiation and potential for patent protection receive the most attention from venture capitalists. Research in this area has produced mixed results with regard to the degree to which these factors impact the funding decision. Rhea concludes that "The product need not be a major improvement over others in the market for successful negotiations"[14]. In contrast, Tyebjee and Bruno report that having a highly differentiated product had a significant impact on venture capitalists' expected rate of return for a venture [5]. In regards to a product's patentability, Macmillian, et al reported this among the ten factors most frequently rated essential to a venture, where in Tyebjee and Bruno's study patent protection was not evaluated in 30% of the cases [11,5].

Less important to venture capitalists is whether there is a functioning prototype or a manufacturing plan for a venture's product. These are viewed as resolvable issues as long as other key elements are in place. Also in this category, is a product's potential for spin-off products. This may be an important characteristic, as spin-off products can help sustain future growth. But again, is given less weight than having a highly differentiated, protectible product.

Product-related criteria have a special impact on entreprenuers as they are often convinced that all that is necessary for success is to get their product into the marketplace. This is in conflict with the typical venture capitalist attitude that product factors rate below management and financial ones as predictors of venture success. Rhea offers that product-related factors may not receive as much attention from venture capitalists due to their background in finance. This contrasts with the technical orientation held by the majority of entreprenuers. This situation can lead to dissatisfaction for the entreprenuer who may feel that his product is not given the regard it deserves.

Differing expections between investor and investee regarding a product and its technology can lead to strategic miscalculations. Venture capitalists may to easily dismiss product development and design issues as resolveable only to experience frustration when goals aren't met. Another danger is that a venture capitalist's lack of interest in a product's technical aspects combined with the entreprenuer's enthusiasism for them leads to a situation where both misjudge the market's acceptance of the technology. Venture capitalists failure to rate the existence of a manufacturing plan as an mportant criteria may indicate a lack of appreciation for the impact an innovative manufacturing process can have. These factors are why many entreprenuers seek out venture capital firms who specialize in certain technologies.

Market Factors

Of the market-related factors, venture capitalists place the most value on the potential growth rate of the venture's targeted market. A high rate of growth must be present if the venture capitalist is going to meet his investment horizon and offset any poor performances by other portfolio companies. Venture capitalists prefer an identifiable market niche of $50-$100 million, markets in this size range will support the high rate of market share expansion required by venture capital funded companies [4].

Besides a high rate of growth venture capitalists have several other market-related criteria. Venture capitalist prefer venture products have "demonstrated market acceptance."[11] Venture capitalists like to see proof in the form of a market survey or by other means that the venture's product will be accepted and valued by the targeted customer. Venture capitalists attempt to assess how secure the venture's market niche is. They evaluate the risk of competition or other forces limiting the venture's ability to reach and sustain a high rate of growth. Venture capitalists also look for the existence of built-in barriers to competitive entry. These barriers may be based upon a product's technology, development time, manufacturing process, or regulatory status.

Financial Factors

The last group of criteria employed in the venture funding decision are those related to the financial returns venture capitalists look for in ventures they fund. For venture capitalists the key financial considerations are, the potential return on investment, the timeframe this can be accomplished within, and the potential liquidity of the venture vehicle.

Venture capitalists typically look for a 5 to 10 times ROI within 5 to 10 years of the first disbursement of funds to a venture. Overall, they aim for at least a 30% rate of return on their portfolio investment. In order to maintain this rate, venture capitalists set high standards for individual investments.

Another important financial criteria looked at is the cash-out potential of the venture. Venture capitalist's evaluate ventures for their future liquitidy via merger, buy-out, or stock offering. Despite the direct link between these financial criteria and ROI, venture capitalists appear to give more weight

SCREENING →	EVALUATION →	DUE DILIGENCE →	NEGOTIATIONS
-availability of funds	-management considerations		-valuation
-portfolio diversification	-staying power		-terms of investment
-geographic location	-leadership ability		
-venture management experience	-acceptance of risk		
	-product considerations		
	-significant improvement		
	-patent protection		
	-market acceptance		
	-market considerations		
	-fast growing market		
	-secure market niche		
	-demonstrated product acceptance		
	-financial considerations		
	-5 to 10 times ROI in 7 years		
	-cash-out potential		

to management experience and talent when making the funding decision [4].

Given that venture capitalists look at these various factors when making their funding decisions, which ones truly indicate venture viability? Macmillian, et al. attempted to answer this by having venture capitalists describe the salient characteristics of funded companies which were successful. The two factors found to be the best predictors of success were: 1) the extent to which the venture was isolated from competition, and 2) the degree to which there was demonstrated market acceptance of the venture product [15].

4. NEGOTIATIONS

Negotiations typically begin during the evaluation phase. They fall into two areas, valuation of the venture and spelling out the terms of investment. Valuation determines what percentage of the company the venture capitalist buys with the money invested. The investment terms refer to the rights and provisions associated with the venture capitalists stock ownership.

Investors use a variety of methods to determine the price they will pay for a portion of equity. This price is a function of:

- -the amount of money invested over the life of the venture
- -the amount they will receive as returns in the future
- -the dates on which the money was invested and returns received, and
- -the probability that things will go as planned[21].

Some venture capitalists compare the investment opportunity to similar ones they are familiar with to help determine the equity split [5].

Valuation is often a breaking point in negotiations as investees try to protect their ownership while venture capitalist seek to maximize their return of investment. For the investee the challenge is to plan ahead for equity dilution in order to maintain a significant equity share after all financing rounds. On average investees give up approximately 50% of ownership to outside investors [3]. Tyebjee and Bruno's survey found that in the first round investees gave up an average of 31.5% of ownership, in the 2nd round 19.7%, and in the 3rd round an average of 10%. The researchers concluded, "Even after several rounds of financing the typical entreprenuer continues to hold a substantial equity position in his venture."[3]

The investment terms are the other concern for investees during negotiation of the venture deal. The investment terms safeguard control of the venture for the venture capitalist and liquidity should the venture turn sour. Typical terms of investment include: stock registration rights, liquidity preference for preferred stock, antidilution provisions, protective covenents, dividend provisions, rights of information, rights of first refusal, and conversion provisions. Venture capitalists further safeguard control by insisting on 2 to 1 voting rights for preferred stockholders, extra representation on board of directors during the first 2 years of the company, and mandatory redemption rights for preferred stock [16].

Kozmetsky remarks, "The only time the structure of a deal truly matters is when the company heads south--when everybody is heading for the exits." [13] Accordingly, a deal's investment terms are not as important to the investee or venture capitalist during negotiations as is price-per-share. Nevertheless, it is these provisions which give the venture capitalist the power to remove venture management if the venture stalls, and if certain conditions prevail, force liquidation of the venture.

5. VENTURE MANAGEMENT

This phase covers the investee venture capitalist relationship as the work together to meet the goals set for the venture. Venture management spends this time heavily involved in the day-to-day operations of the company. They will be assisted by the lead investor who serves as principal monitor of venture progress. If things go as anticipated for the venture, this period is characterized by explosive growth and the pressures it creates. Feeding this growth requires additional rounds of financing, where the entreprenuer must negotiate with more investors for shares in the venture. This time, however, the investee is assisted by his venture capitalist.

The types of assistance venture capitalists offer and their impact is one of the issues of concern to the investee during the management phase. Venture capitalists often talk about the value they add to ventures. For the investee, it is a question of what kind of help he can expect, and whether this involvement actually adds value to the company or detracts from it.

Researchers have identified several types of assistance venture capitalists typically provide to their ventures. Chief among these are: helping to obtain additional financing, strategic planning, management recruiting, operational planning, introductions to potential customers and suppliers, and resolving compensation issues [18]. Others included: serving as the entrepreneur's confidant, introductions to consultants and other professional services, and recruitment of board members. Among activities with the least venture capitalist involvement Macmillian, et al list: selecting vendors and equipment, developing production and service techniques, developing actual product or service, selecting customers or distributers, and testing or evaluating marketing plans [10]. To coordinate these activities, lead investors typically visit a venture 1.5 times a month and spend an average of 5 hours [18].

From these findings it is clear that venture capitalists are not heavily involved in day-to-day operations of their ventures. For independent-minded entreprenuers this is a welcome situation. On the other hand, the communication requirements between investees and their venture capital investors run high. The time and energy required to maintain good levels of communication can disrupt the investees management of his company. If quality communication is not maintained, the investee/venture capitalist relationship is susceptible to misunderstanding and misconceptions. Regarding whether venture capitalists' non-financial types of assistance add value to a venture, findings are mixed. In Macmillan's study of venture capitalists levels of involvement in their ventures it was found that for different levels of involvement, various assisting activities had different correlations with venture performance. Depending on whether the investor was a close tracker, moderate, or laissez-faire type, certain types of assistance may be more suitable than others in benifiting venture performance. Another measure of the value venture capitalists add to their ventures is the stock market performance of venture funded companies. Cherin and Hegbert compared venture capital funded companies versus unfunded companies on the basis of their stock performance following IPO. They concluded that the value added by venture capitalists was negligible when looked at with this measure [19].

Another issue of importance to the investee during the venture management phase regards the types of conflicts which can develop in the investee/venture capitalist relationship. Their relationship illustrates a situation where two parties' goals are alined, but their motivations are different. The typical entreprenuer desires to build a company based on his vision of what an organization should be. He wants his company to be recognized for the cleverness and quality of its product. And, he values his independence. For the venture capitalist, while he may be motivated by the excitement of the work itself and the lifestyle it offers, he is primarily driven by the capital gain represented by a venture opportunity. Examples of how these different motivations manifest themselves during the relationship include: disagreements over resource allocation and strategy, where the entreprenuer desires to build an organization while the venture capitalist is interested in building sales; misunderstandings over product development time due to their respective orientations towards technological versus financial issues; divisions over liquidity timing, venture management is concerned with maturity of their company while the venture capitalist has to consider the overall performance of his portfolio; and finally, differences over strategies for saving a troubled venture, the entreprenuer is intent on survival of his company while the venture capitalist's main concern is salvaging his investment [18].

As long as the venture is meeting the milestones set for it, there is little cause for these conflicts to come out in the open. It is when the venture stagnates that the relationship can often become adversarial. One sign of this is that when ventures are in trouble, venture capitalists point to venture management as the most important contributing factor [18]. This, not infrequently, leads the venture capitalist to fire senior management through his position on the board of directors and the provisions of the venture agreement.

How can investees minimize the potential for disharmony in the relationship? The entreprenuer must recognize that by agreeing to the deal he has joined the venture capitalist in the shared goal of liquidating the venture at a substantial capital gain at some future date. The entreprenuer has to accomodate his personal goals for the company within the framework of this agreement. As discussed earlier, quality communication is the other key to heading-off controversies over venture management.

6. CONCLUSION

The venture capital investment process presents a number of questions for the novice entrepreneur, these include:

- Why seek venture capital rather than other types of funding?
- How do you find the right venture capital firm for your venture?
- What do venture capital firms look for in ventures they will commit funds to?

-What is negotiated in the investment agreement?
-How much interference from the venture capitalist can be expected regarding management of the venture?

In order to answer these questions the venture capital investment process has been looked at from the point the investee makes the decision to seek venture capital through investee/venture capitalist management of venture growth. The various issues confronting investees have been described. Researchers' findings on these issues have been presented along with their implications for potential investees.

From an Engineering Managment perspective, clearly, there are numerous aspects of the venture capital process that are particularly well-suited for engineering managers' involvement and application of EM methodologies. Engineering managers have the combination of management skills and technological backgrounds to become excellent venture managers or even venture capitalists. Venture evaluation is a fertile area for the application of decision-making tools and resource allocation programs. Engineering Management skills could be used to develop systems for investee/ venture capitalist communication. Lastly, there are opportunities for the field of engineering management in the creation of technology commercialization models which incorporate venture capital principles.

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Telephone Interviews

Keith Carson		Interven Partners
Herb Shaw		Shaw Management Company
Alan Dishlip		Shaw Management Company
Fred Dotzler	Managing General Partner	Medicus Venture Partners
Les Fehey		Peat, Marwick, and Main
Wayne Embree		ORTDC
Jim Hurd	President	Planar Systems, Inc.
Pearl Tratenberg	Corporate Secretary	Metheus Corporation
Craig Swanson	Chief Financial Officer	Protocol Systems
Jay Watkins	President	Origin Medsystems, Inc.
George Hermann	General Manager	Fogarty Engineering

Financing Stage	Product Development Stage	Need For Funding
Seed Stage	concept	-prototyping, development -technical personnel salaries
Start-up	prototype under evaluation	-product development -assembling marketing team -manufacturing set-up
2nd Stage	product ready, may be in production	-manufacturing equipment -build sales force
3rd Stage	product in production follow-up products under consideration	-increase manufacturing capacity -more operating personnel
Bridge Stage	established product follow-up product underway	-product diversification -capital restructuring prior to IPO