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ANGEL INVESTMENT CRITERIA

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ABSTRACT

Start-up businesses often need external financing to grow. These new ventures frequently turn to business angel investors for capital. Angels, who are often wealthy individuals, provide early stage financing, called seed capital, for these start-up ventures. This study examines what a group of angel investors in Southern California consider when reviewing an investment opportunity, and how they prioritize their investment criteria. The study utilizes a two-phase approach consisting of a qualitative first phase and a quantitative second phase. The results of this study show that trustworthiness of the entrepreneur, quality of the management team, enthusiasm of the lead entrepreneur, and exit opportunities for the angel are the angels' top criteria.

INTRODUCTION

This study examines what business angel investors consider when reviewing an investment opportunity, and how they prioritize their investment criteria. Angel investors, who are often wealthy individuals with experience building a business, provide early stage financing, called seed capital, for start-up ventures. Venture capitalists (VCs) typically provide later stage financing, after the angels' investment.

Many start-up businesses need external financing to grow (Tyebjee & Bruno, 1984; Hisrich & Jankowicz, 1990). If these new ventures anticipate quick and aggressive growth, they often turn to angel or venture capital investors for capital. Angels invest more funds in more firms than any other source of outside financing (Freear, Sohl, & Wetzel, 1992). Although it is hard to estimate the exact size of angel investment due to its highly fragmented nature, in 2004 it was reported to total $22.5 billion (Sohl, 2005). This estimate puts total angel investments higher than formal venture capital investing for 2004 (Sohl, 2005).

Angel investing has provided seed capital for some famous U.S. businesses such as Bell Telephone in 1874, Ford Motor Company in 1903, and Apple Computer in 1977 (Van Osnabrugge & Robinson, 2000). Entrepreneurial ventures dramatically affect the U.S. economy and are the primary job-creating engine of our economy, providing three out of four new jobs (Ojala, 2002). To put this in perspective, it is estimated that new business start-ups averaged approximately 550,000 per month between 1996 and 2004 (Kauffman Foundation, 2005). The Small Business Administration estimates that 51 percent of private sector output is from small business (Van Osnabrugge & Robinson, 2000). Between 1995 to 1999, the *Inc.* 500 (the 500 fastest growing privately held companies in the U.S. reported by *Inc.* magazine) created 6 million of 7.7 million new jobs (Van Osnabrugge & Robinson, 2000). Clearly entrepreneurial businesses are a powerhouse in the U.S. economy.

LITERATURE REVIEW

Most of the literature which addresses the start-up investment decision process has focused on how VCs make investment decisions. (Elitzur & Gavious, 2003; Mason & Harrison, 2002). There has been little attention given to angel investors in the literature due to its private fragmented nature. In fact, to the author's knowledge, this is the first empirical study addressing U.S. Angel investment criteria. It has been difficult to locate and survey angels (Mason & Harrison, 2002). However, since the late 1990s, angels have started to form organizations that help coordinate their efforts (Kauffman Foundation, 2002). Also, we can draw from the venture capital literature for angel investors due to some similarity of the investment process by angels and VCs. However, let us start with the differences between angel and VCs.

An important difference in the process between how angels and VCs invest is that VCs perform more due diligence than angels: "a recent study found that 71 percent of venture capitalists, but only eight percent of business angels, take three or more references, with the two groups averaging around four and one respectively" (Van Osnabrugge, 1998). Angels perform less professional due diligence than VCs, invest more opportunistically, rely more on instincts, and do not calculate internal rates of return (Timmons, 1990; Baty, 1991; Mason & Harrison, 1996; Van Osnabrugge & Robinson, 2000). VCs may have a staff of people to perform due diligence or may hire professional firms to perform all or portions of the due diligence process (Van Osnabrugge & Robinson, 2000). Since angel investors invest their own money (Benjamin & Margulis, 2000), they are less accountable than VCs, and their lack of rigor can lead to poorer investment decisions.

Angels and VCs also differ in their motives, their entrepreneurial experience, and their expected involvement (Van Osnabrugge & Robinson, 2000). In general, angel investors are much more involved with the companies in which they invest than VCs, and are often involved more in day-to-day operations than VCs (Benjamin & Margulis, 2000). In the U.S., 87 percent of Angels have operating experience (Freear and Wetzel, 1991), while a typical VC has little or no operating experience (Van Osnabrugge & Robinson, 2000). Angels typically have more entrepreneurial experience than VCs; research has shown that 75 to 83 percent of angels have start-up experience as compared to approximately 33 percent for VCs (Van Osnabrugge & Robinson, 2000). Often, angels will work part-time, with periods of full-time commitment, to help entrepreneurs through challenging issues (Van Osnabrugge & Robinson, 2000). In fact, some angels are looking to work on a regular basis at their investments, whereas VCs rarely have the intention of being involved in operations (Benjamin & Margulis, 2000). For these reasons, the angel investment often becomes more personal to both the investor and the entrepreneur. An angel investor is typically motivated beyond return on investment (ROI) (Benjamin & Margulis, 2000; Van Osnabrugge & Robinson, 2000), while VCs primary reason for existence is ROI. VCs are in business to return a profit on the partners' investment, while angels enjoy helping another entrepreneur build a business and giving back to the entrepreneurial community (Benjamin & Margulis, 2000; Van Osnabrugge & Robinson, 2000). In summary, VCs are more objective with regards to financial return, less emotionally attached, and more interested in ROI.

The literature suggests that the entrepreneur is the most important factor when evaluating a start-up (MacMillan, Siegel, & SubbaNarasimha, 1985, MacMillan, Zemann, & SubbaNarasimha, 1987; Van Osnabrugge & Robinson, 2000). Arthur Rock, a legendary venture capitalist, once said, "Nearly every mistake I've made has been in picking the wrong people, not the wrong idea" (Bygrave & Timmons, 1992, p. 6). Both angels and VCs feel that the entrepreneur and the management team (Van Osnabrugge, 1998; MacMillan et al., 1987; Van Osnabrugge & Robinson 2000) are the two factors that attracts them to most deals. Macmillan, et al., (1985), for example, found that for VCs the quality of the entrepreneur ultimately determines the funding decision. Some literature suggests that angels are more attracted to the entrepreneur while VCs might be slightly more attracted to the idea (Van Osnabrugge & Robinson, 2000). VCs, for instance, often feel they can attract better management to a deal if the deal is fundamentally sound (Van Osnabrugge & Robinson, 2000; Ehrlich, Noble, Moore, & Weaver, 1994; Harrison & Mason, 1992; Freear, Sohl, & Wetzel, 1997; Macmillan et al.). Timmons and Spinelli (2004) stated that the management team can make the difference in venture success.

Some literature suggests the management team is the most important factor (Shepherd, 1999; Dixon, 1991; Macmillan et al., 1987). Carter and Van Auken (1992) found the management team second only to the entrepreneur in a survey of VCs consisting of 27 investment criteria. Clearly, the entrepreneur and the management team are very important criteria for the investment decision for both angels and VCs. Understanding the entrepreneur and the team are important in evaluating how angels and VCs prioritize their investment criteria. Understanding what characteristics angel investors look for in the entrepreneur is the next step to understand the investment decision process.

Carter and Van Auken (1992) found that out of 27 investment criteria, VCs found entrepreneur's honesty ranked first, and entrepreneur's commitment ranked second. Van Osnabrugge and Robinson (2000) performed a study of European start-up investments that showed enthusiasm and trustworthiness were ranked first and second, respectively out of twenty-seven investment criteria for angels—see table 1.

Although VCs are more focused on a ROI for their limited partners, they still rank trustworthiness and enthusiasm higher than ROI. Coveney (1996) found that lack of trust reduces investment by angels. Timmons and Spinelli (2004) stated that the entrepreneur's commitment and determination are more important than any other factor when looking for successful entrepreneurs. Benjamin and Margulis (2000) stated that "Some investors are motivated by the passionate commitment of the entrepreneur. People committed to a venture can be persuasive; they have enthusiasm and solid entrepreneurial vision [p. 95]" Benjamin and Margulis (2000) combined the themes of passion, commitment, and enthusiasm.

The themes of passion, commitment, and enthusiasm are used interchangeably throughout the literature (Coveney, 1996; Timmons & Spinelli, 2004, Benjamin & Margulis, 2000, Van Osnabrugge, 1998). Hence, this study treats them as the same construct relative to characteristics of the entrepreneur.

In addition, Van Osnabrugge and Robinson (2000) found that expertise of the entrepreneur, liking the entrepreneur upon meeting, and track record were important characteristics of the entrepreneur.

INTEGRATION AND RESEARCH QUESTION

With little literature focusing on the angel investment process, and an estimated $22.5 billion (Sohl, 2005) invested in 2005, it

Table 1- Van Osnabrugge Angel Investment Criteria

Selected Investment Criteria	Ranking
Enthusiasm of the entrepreneur(s)	1
Trustworthiness of the entrepreneur(s)	2
Sales potential of the product	3
Expertise of the entrepreneur(s)	4
Investor liked the entrepreneur(s) upon meeting	5
Growth potential of the market	6
Quality of product	7
Perceived financial rewards (for investors)	8
Niche market	9
Track record of the entrepreneur	10
Expected rate of return	11
Product’s informal competitive protection	12
Investor’s involvement possible (contribute skills)	13
Investor’s strengths fills gaps in business	14
High margins of business	15
Low overheads	16
Nature of competition	17
Ability to reach break-even without further funding	18
Low initial capital expenditures needed (on assets)	19
Size of the investment	20
Product’s overall competitive protection	21
Low initial cost to test the market	22
Venture is local	23
Investor understands the business/industry	24
Potential exit routes (liquidity)	24
Presence of (potential) co-investors	26
Formal competitive protection of product (patents)	27

seems important to pursue empirical research in this area. A logical place to start is the understanding of how angel investors make their investment decision. Numerous studies have provided this same empirical research for VC investors, thus, the next step is to provide similar studies in the angel investment area. Therefore, this study will focus on providing empirical data regarding the U.S. angel investor decision process. To the author’s knowledge, this is the first study to provide empirical data on how U.S. angel investors rank investment criteria. Van Osnabrugge (1998) provided empirical insight into the angel investment process in the U.K. Accordingly, the present study builds directly on the work of Van Osnabrugge. As such, the research objective for this study is to identify U.S. angel investment decision criteria. A secondary objective of this study is to understand how U.S. angel investors prioritize their investment criteria. Thus:

[Research Question]: How do U.S. angel investors prioritize their investment criteria?

STUDY OVERVIEW

There has been little research on how angel investors select their investments (Elitzur & Gavious, 2003). Understanding how angel investors rank investment criteria and the relative importance of their perceptions will help us understand the investment process better. The better we understand this process, the more likely we can improve angel investment process.

This study utilized a two-phase approach to understanding how angels make their investment decisions. This two-phase approach consisted of a qualitative first phase and a quantitative second phase. The results of the first phase were intended to help inform the second phase and develop the quantitative instrument. (Miles & Huberman, 1994; Greene, Caracelli, & Graham, 1989). A participant-observer methodology was utilized in the first phase to collect data. In this case, the participant-observer methodology involved the researcher personally observing and experiencing the angel organization as a member. Patton (2002) discussed six key advantages of the participant-observer methodology. First, direct observation allows the observer to understand and capture interaction between people in context. Second, it allows the observer to be open to new information and be more inductive, relying less on prior conceptualizations. Third, one can see things unfold that may routinely escape the people involved in the process. Fourth, the opportunity to learn things while observing that might not be uncovered in interviews: sometimes, people are less likely to discuss sensitive topics in a direct interview that may be observed in the natural setting. Fifth, the ability to gather data that is not biased by an interviewer's selective perceptions. Finally, the process of the observations allows the observer to draw on firsthand experiences during the formal interpretations stage of analysis and discussion.

In the case of the current study, another advantage of the participant-observer methodology was complete access to the angel organization that the investors afforded to the investigator. This allowed a more natural observation versus an outsider to the organization. An outsider's results would not have been as accurate as members tend to modify their comments when outsiders are present. In addition, outsiders are not allowed access to certain portions of organization meetings due to legal issues related to disclosure of information. Accordingly the qualitative phase was intended to create understanding of how angels go about their investment process, what they discuss, what seems important in evaluating a start-up, and how they prioritize their investment criteria. Collecting data through this process helped to build the survey for the second phase of the study.

The second phase was quantitative and consisted of surveying angels on what criteria they use to make an investment and how these criteria are prioritized. Existing literature was reviewed to identify any previously used questionnaires on angel investment criteria. This search identified one such instrument (Van Osnabrugge, 1998). Accordingly, in the phase two quantitative investigation, a quantitative questionnaire was developed based on the phase one qualitative results and the Van Osnabrugge (1998) instrument.

METHOD

This study was based on observation and survey of members of Tech Coast Angels (TCA). TCA is the largest angel organization in the U.S. consisting of 173 angels, as of August 2004. TCA is located in Southern California.

TCA members bring extensive and diverse experience and networking resources to the angel investment process. Since most of the members have been entrepreneurs, they can provide more than just a financial perspective to start-up companies. As an example, many can offer operating, marketing, sales, and engineering experience to the start-up company.

TCA does not invest as a whole but, rather, each angel decides whether to independently invest. The typical minimum investment per angel is $25,000, although some deals allow for lower amounts. As a whole, TCA typically provides funding in the range of $250,000 to $1,000,000 per venture. This financing garners from 10 to 40 percent ownership of the company. The terms of the transactions vary, but normally include preferred stock, automatic conversion to common stock at IPO, antidilution provisions, voting rights, and a board seat. As of August 2004, TCA had funded 81 companies with $52,707,836. In addition, these companies have received additional financing in excess of $536,633,332 from other sources.

The decision to invest in a company is often affected by the impression the investor forms of the entrepreneur and the company in the initial meeting. This initial meeting is often called a screening. At a screening, the entrepreneur presents their company plan and answers questions for potential investors. The screenings consist of two distinct sections. The first section is the public portion which normally consists of the entrepreneur presenting a PowerPoint slide show for 15 minutes; the next 15 minutes are dedicated to open question and answers. The public section typically consists of four presentations by four different entrepreneurs.

The second section consists of a private discussion where the angels discuss each presentation. This private portion provides the most enlightening observations. The angels effectively let down their guard during this discussion and speak freely about their perceptions of, concerns about, doubts about, and interest in the project. Two-hundred, fifty-nine companies were observed at TCA screenings prior to the survey in August 2004. The qualitative phase was drawn from these screening observations.

The quantitative phase consisted of a survey instrument that was developed to survey TCA members on how they rank their investment criteria. The instrument was developed based on themes that emerged during the qualitative phase and the Van Osnabrugge instrument.

In reviewing the Van Osnabrugge instrument, there were many items that appeared appropriate to retain. Items discussed in the TCA meetings that were already on the Van Osnabrugge instrument were retained.

The next step was to delete items that did not seem appropriate for the TCA instrument. Based on the qualitative phase of the study, items were deleted based on their rarely being discussed in the screenings. In addition, some items were ambiguous, redundant, or did not apply. In addition, item terminology was modified to be more aligned with U.S. angel culture. These items were only edited, not removed.

The last step was to add items that emerged in phase one of the study but were not on the Van Osnabrugge instrument. The most important item that was added was that of the “management team”. In addition, “barrier for entry of competitors”, and “advisors currently involved” were added. The instrument consisted of a Likert scale with 5 being very important, and 1 being not important.

A survey pilot was tested with handful of TCA members in July of 2004. After minor modifications for clarification, the survey was announced by the author at a monthly dinner meeting in August 2004. The survey was handed out to the dinner attendees and 30 members filled out the survey at the dinner and handed it back upon exiting. Two emails regarding the survey were sent to the membership after the dinner to encourage more participation. The total sample size for the survey was 173. In total, 73 members responded, a response rate of 42 percent. One survey was eliminated due to the member not having made any investments, therefore final sample size was 72.

RESULTS

Qualitative Results

The purpose of the qualitative phase was to identify important decision criteria of angels that would be subsequently used in the quantitative phase. Common themes emerged from the observed screenings and associated discussions . The angels consciously focus most of their time and energy on four main themes. These themes are: the passion of the lead entrepreneur; the trustworthiness of the lead entrepreneur; the quality of the management team; and the existence of an exit strategy or liquidity potential for the investor.

Passion

Passion and commitment of the entrepreneur emerged as the most important criterion. Investors look for entrepreneurs who show passion. Entrepreneurs who demonstrated this quality typically received more interest than ones who may have had a better business model or product but lacked passion. If the entrepreneur lacked passion or enthusiasm, investors appeared to be less interested. This may be due to the perception that start-up success is so difficult that entrepreneurs without great commitment and enthusiasm might be less likely to succeed. In the angel's mind, it appeared that commitment and passion would translate into business success.

Angels seemed particularly interested in whether the entrepreneur was passionate and committed to do whatever it takes to work through all of the problems of a start-up to succeed. Angels found entrepreneurs with passion and commitment more engaging and interesting. One entrepreneur that embodied this kind of passion was a financial services start-up that provided prepaid credit cards. While the entrepreneur did not have any actual financial services experience, he showed high energy enthusiasm that impressed the angels. In addition, he had made reasonable money in past careers and had put up most of his money, including mortgaging his house, to start the company. The passion and perceived commitment of this financial services entrepreneur garnered excitement from the investors.

Trustworthiness

From the angels' perspective, each interaction between the entrepreneur and the angels is an opportunity to build or break down trust. The richest content on this point surfaced when the entrepreneurs were out of the room. Some entrepreneurs benefited when they admitted that they did not have an answer to a specific question but would get the answer later. Others appeared to obfuscate, giving the angels sly answers. Generally, the angels agreed that if the entrepreneur was avoiding the question, he or she might not be able to be trusted. The entrepreneur failing to listen to the question was problematic in its own right. In addition, entrepreneurs who appeared to provide contradictory answers lost credibility and trust. Some angels clearly stated they did not trust a particular entrepreneur based on their answers to questions and had no further interest no matter how appealing the business proposition was. A lack of trust would often cancel out any of the business idea's merits, growth potential, or ROI potential in the minds of the angel investors. The entrepreneur has to be trustworthy.

Management Team

In the private portion of the discussion, questions would often emerge as to whether the management team was appropriate for the project. This discussion typically centered on whether all of the pieces of the management team were in place. The entrepreneur was not expected to be able to do everything. However, the angels did expect the entrepreneur to know what the shortcomings of the current team were, and what team members needed to be added.

As they did with the entrepreneur, the angels looked for passion and commitment in the team. A team that appeared to have passion, commitment, and an understanding of their individual roles was a plus. In addition, on a few occasions, a team that was part of a previous successful team was a highly regarded characteristic. For instance, a team that had success building a product and was then acquired by a large company was perceived as a winning combination.

While angels were less concerned about the team being in place for start-ups that were not very far along, they often asked questions to uncover whether the entrepreneur knew what type of team was needed for success. Accepting that the management team is an important attribute, the next step is to understand what characteristics of the management team are important to the angel investor. Coachablity of the team was one primary theme that was discussed. Teams that were perceived as not coachable were less likely to advance to due diligence phase of the process. Another aspect that was commonly discussed was the commitment of the team. This was often described as survivability. Investors liked teams that struggled through hard times and kept pursuing the venture. An example of a team that was considered to have high survivability was one that had been working their venture out of the garage for a long time to keep overhead low. The perception by the angels was that the team would do whatever it took to succeed. As with the entrepreneur, passion was discussed in relation to the team. Investors found that passion was not just necessary in the entrepreneur but in the team as a whole. Other themes that emerged were: experience of advisors, complementary skills of the advisors, track record of the individuals on the team, and experience of the team working together.

Exit

Angels primarily invest to receive a return on their money. Since angel investments usually have a 4-6 year horizon (Mason & Harrison, 2002), and return is typically only attained through an exit or liquidity event, angels seek ventures that will grow and be attractive to acquirers or have the possibility of an initial public offering (IPO). Since IPO's are rare, angels are very interested in learning who the potential acquirers may be for a particular venture. While observing entrepreneur presentations at TCA, it was not uncommon to observe a start-up that had already demonstrated profitability, had a solid business plan, and was led by an entrepreneur with a proven track record but did not garner much interest due to an unclear exit path.

In one example, a company had clearly identified potential acquirers and a potential sale price of the firm. Included in this were the potential returns the investors could receive from various acquirers upon liquidation. In addition, this entrepreneur had been part of a company that was built and sold within the industry, so he understood who would be interested, why they would want to purchase a company, and approximately how much they would invest. Again, since angels can only attain a return on their investment through a liquidity event, there is often a focus on who and why someone would want to purchase the start-up. The main theme for angels was seeing how the start-up reached an exit. The general feeling was if there is good growth in the company and there are likely exit paths, then the ROI will come.

In yet another example, a company did not have any information on exit in their presentation. When the entrepreneur was asked about their exit path, he responded "I believe we can do an IPO". This statement yielded strong feelings in the post-presentation discussion among angels. An IPO is such a rare event, that it caused angels to feel that the entrepreneur had not thought about a viable exit plan. Watching this process helped make it clear that the best business plan or idea might not be perceived as the best investment.

Other Themes Identified

Throughout observation of the screenings, many other themes emerged. These included: barrier to entry of competitors; intellectual property; growth potential; competition; profitability; what advisors were involved; domain knowledge of the investor similar to the start-up; and ROI. However, these themes were not as consistent nor did they carry the intensity of the four themes mentioned above. Also, some investors focused on specific criteria across all screening candidates. For instance, one investor asked nearly every entrepreneur how much of their own money was invested. When this investor was absent from a screening, this question was not consistently asked. Some investors often focused on functional areas of the business such as finance, marketing or on intellectual property. This was often due to their professional background. For example, someone who had a finance background might focus on issues related to the financial projections. In addition, through interviews, it was uncovered that some investors were biased towards certain criteria based on previous investment success or failure. For instance, one investor focused on understanding the competition, since he had previous investments fail due to competitor issues.

Quantitative Results

The results of the quantitative phase confirm the results in the qualitative phase, with trustworthiness (4.81), management team (4.64), enthusiasm (4.63), and exit (4.53) ranking as the top four criteria (5 being very important, 1 being not important). These results were expected based on the qualitative phase, however, there were no significant differences between the top 4 items and the next items in the survey.

With the exception of the "management team" item which was added for the purposes of this study, the results are similar to those of Van Osnabrugge (1998) which found enthusiasm ranked first, and trustworthiness ranked second. This study's results showed enthusiasm ranked third, and trustworthiness ranked first. The management team ranked second in this study. In addition, exit, which emerged as a top theme in the qualitative portion of the study, ranked fourth in the survey. Van Osnabrugge found exit to be twenty-fourth. Table 2 shows the ranking of the survey items.

Most venture capital literature shows the management team ranking high in investment criteria. This study shows the management team ranked second and, thus, is an important investment criterion. The literature lacks detail on which attributes of the management team are important. This study shows passion (4.71), survivability (4.42), and openness (4.33) of the team are the top 3 criteria for the management team. Table 3 shows the items and ranking of the management team.

The sample was predominately male (males=68, females=4). Since there were only four females in the study, no analysis was performed related to gender differences. The mean age of the investors was 53.7 (N=70). Forty-nine angels had started a business with a minimum of five employees and stayed in business for at least three years (N=69). The mean level of education was 2.83 (N=72, 1=high school diploma, 2= bachelors degree, 3=masters degree, 4=PhD). The distribution of the highest degree completed were as follows: 11 PhDs, 41 Masters, 17 bachelors, and three high school diplomas. The mean number of face to face meetings the angels have with the entrepreneurs before making an investment were 6.02 (N=66). Angels were asked what percentage of investments do they have domain expertise. The results show that they have domain expertise in 54 percent of their

Table 2 - Results of Investment Criteria (N=72)

Investment Criteria	Rank of Current Study	Mean	STD	Rank of Van Onsabrugge
Trustworthiness/honesty of the entrepreneur(s)	1	4.81	.399	2
Management Team	2	4.64	.657	N/A
Enthusiasm/commitment of the entrepreneur(s)	3	4.63	.592	1
Potential exit routes (potential liquidity)	4	4.53	.712	24
Revenue potential	5	4.47	.581	3
Domain expertise of the entrepreneur(s)	6	4.44	.603	4
Growth potential of the market	7	4.29	.701	6
Return on Investment (ROI)	8	4.26	.805	11
Barrier for entry for competitors	9	4.19	.781	N/A
Product's overall competitive protection (in market segment)	10	4.11	.815	21
Profit margin of the business	11	4.08	.746	15
Track record of the entrepreneur(s)	12	4.00	.839	10
Competition of market segment	13	3.94	.785	17
Liked entrepreneur(s) upon meeting	14	3.90	.922	5
Product's formal competitive protection (patents)	15	3.56	.933	27
Your personal knowledge of the business/industry	16	3.53	.822	27
Ability to maintain low overhead	17	3.46	1.020	18
Potential of co-investors present	18	3.44	1.033	18
Advisors currently involved	19	3.40	.899	N/A
Niche market	20	3.31	1.121	9
Size of the investment	21	3.26	.769	20
Ability to reach break-even without further funding	22	3.24	1.000	18
Low initial capital expenditures needed (i.e. on assets)	23	3.22	.996	22
Investor's (your) strengths fill gaps in business	24	2.92	1.017	20
Ability for involvement possible (contribute skills)	25	2.85	.914	13

Table 3 - Results of Management Team Criteria (N=72)

Item	Rank	Mean	STD
Passion of the team	1	4.71	.568
Perceived sense of survivability of the team (how persistence they will be without giving up)	2	4.42	.707
Openness of team for mentoring (coachabilty)	3	4.33	.628
Track record of individual team members	4	4.04	.759
How complementary the skills of the team are	5	3.87	.691
Experience of the advisors	6	3.67	.888
How much experience the team has working together	7	3.22	.826

investments (N=66, low=10%, high =100%). The mean number of investments made were 10.54 (N=72, low=1, high=50). Of those investments, 48% had no exit yet, 32% had a negative return, and 20% had a positive return (N=71). Analysis was performed to see if there was a relationship between investment experience (based on number of investments) and criteria rankings. This analysis showed no significant relationship between investor experience and criteria rankings. However, if we group number of investments by least experience (up to 5 investments), medium experience (6-15 investments), and most experience (over 15 investments), "honesty" was rated as very important by 71 percent of least experienced investors, 82 percent of those with medium experience, and 93 percent of those with the most investing experience. Only 58 percent of least experienced investors rated enthusiasm as highly important criterion, compared to 71 percent for investors with more than five investments. The mean year for starting investing was 1991 (oldest 1971, most recent 2004, N=72). The mean total investment amount per angel was $1,610,363 (N=69). However, there were three total investment amounts of $25,000,000, $20,000,000, and $18,000,000, which were angels who also do VC investing. If we remove these investments, the mean total investment amount per investor was $729,015 (N=66). Again, analysis was performed to see if there was a relationship between investment experience (based on investment amount) and criteria rankings. This analysis also showed no significant relationship between investor experience and criteria rankings. The mean years to expected liquidity were 5.25 years (N=72). Angels were asked to weight the importance of motivation based on three categories. The means were 62.85% for return on investment, 21.70% for helping build companies, and 15.45% for mentoring entrepreneurs (N=71).

DISCUSSION

The primary focus of this study was to identify US angel investment decision criteria. Secondary focus was to understand how U.S. angel investors prioritize investment criteria. There has been little empirical research that provides insight on how U.S. angel investors rank their investment criteria (Wetzel, 1987; Harr, Starr, & MacMillan, 1988).

Confirming the results of the qualitative phase of the research, the most important findings in the quantitative phase were that TCA Angel investors rank trustworthiness, enthusiasm, and the management team high in their investment criteria. As such, this study showed results similar to the Van Osnabrugge (1998) survey. Greater understanding of how investors prioritize their investment criteria will allow us to build better due diligence processes and potentially improve the overall investment process and resulting outcomes.

This study brings new information to light with regard to how important the management team is to the investor. There is much research which has focused on the entrepreneur. It seems logical that the entrepreneur may be the single most important member of the management team. However, the team is usually very important to the success of a new venture. Understanding more about how investors perceive a good management team will help us understand the investment process in more depth. This study showed that the combination of passion and commitment was the most important ingredient for the management team from the investor point of view. This result makes sense since enthusiasm of the entrepreneur ranked third in the investment criteria. Clearly, investors feel that passion is necessary to attain success. This can be explained by the often grueling and difficult process entrepreneurs go through to build a company. A management team without strong passion may not have enough drive to go the long haul. The second attribute for a management team is survivability. This goes hand-in-hand with passion. A successful management team of a start-up needs to have passion for what they are doing and strong drive to survive the challenges they will encounter. This finding supports the need to further understand the soft side of the investment process. Trustworthiness, enthusiasm, passion of the team, and sense of team survivability are all qualitative aspects of investment criteria.

The results of this study differ from the Van Osnabrugge (1998) survey in a number of ways. Since there is little literature comparing US and U.K. angel investors, we cannot draw any clear conclusion regarding the distinctions. However, a few differences between this study and the Van Osnabrugge (1998) survey should be noted. Although this survey consisted of only 72 angels from one angel organization, it is the first U.S.-based angel investment criteria survey. It might not be possible to generalize this organization to all U.S. angels; however, since the angels of this organization invest independently of each other and are from diverse backgrounds, some generalizabilty may be suggested. Two items which were rated near opposite ends of the scale by U.S. and U.K. angels were "Potential exit routes" and "Liked entrepreneur upon meeting". U.S. angels rated "Potential exit routes" at fourth, while U.K. angels rated it twenty-fourth. A potential explanation for this may be a focus by U.S. investors on success in the investment process. If a new venture does not have a clear exit path, it is unlikely to be successful and bring any return to the investor. This may also explain why U.S. angels rated "Liked entrepreneur upon meeting" fourteenth, while U.K. angels rated it fifth. The perception of TCA investors is that almost all of the deals funded are expected to need venture capital investment. The venture capital model typically allows for the entrepreneur to be replaced. It is possible that TCA investors are not concerned whether they like the entrepreneurs but whether they can be trusted and if the venture is likely to be successful. In addition, angels who are part of a formalized investment association may be more likely motivated by ROI rather than mentoring entrepreneurs or building companies. Additional, albeit weaker, support for this assertion is that this study showed ROI ranked eighth by U.S. angels and eleventh by U.K. angels.

There are many potential logical steps beyond this study. First, a larger sample could be attained to verify the findings here. Second, the top criteria could be studied in more depth. Understanding how investors form their perceptions of these top criteria may allow us to develop a better process in evaluating these constructs. Third, a longitudinal study could be initiated that tracks investments and how investors rank these criteria to see if there are any correlations with the investment criteria and success in the venture. Due to many external forces that may lead to start-up failure such as market shifts, government regulations changes, and unanticipated competitor moves, developing a high correlation between investment criteria and success may prove to be difficult.

PRACTICAL IMPLICATIONS

There are practical implications for both entrepreneurs and investors in this study. First, entrepreneurs need to realize that a good idea alone is not enough to obtain funding. How an entrepreneur manages the presentation to investors, answers questions, and facilitates the relationship through the process will have an impact on securing funding. Second, entrepreneurs need to build a management team that investors are willing to trust and invest in. It is important that the entrepreneur communicate about the team to the investors. Third, entrepreneurs need to clearly communicate an exit strategy for investors so that they can see an eventual return on their investment. Fourth, investors need to be aware how faulty first impressions can be in the initial stages of meeting an entrepreneur. Jumping to conclusions on how trustworthy and passionate the entrepreneur is needs to be evaluated through the due diligence process. Angels tend to spend most of their time in the due diligence process evaluating the quantitative side of the deal; more time spent on the qualitative side, or soft side, might lead to better investments. Angel investors should consider utilizing new techniques to evaluate the soft side of the deal rather than just their gut feeling. Effective human capital assessment tools appear not to be prevalent in the start-up area, therefore, more rigorous interview techniques and entrepreneur background reviews may be helpful.

LIMITATIONS

The major limitation of this study is the fact that only one angel investing organization was surveyed. Although TCA is one of the largest angel organizations in the country and, therefore, may be a good sample for predicting the behavior of the U.S. angel population, extending the survey to other organizations and individual angel investors would increase the power of the study. Also, inherent in any self-reported survey is the issue of accuracy and bias. It is possible that some investors may have biased their answers to a more socially acceptable orientation. As with any self-reporting survey there is no opportunity to verify the accuracy of the responses. In addition, the participant-observer process utilized in the qualitative phase can be susceptible to bias, inaccurate perceptions, and selective perceptions.

CONCLUSION

This study addresses an important gap in current academic literature on angel investors. This study surveyed U.S. angel investors to help understand how they evaluate and prioritize their investment criteria. This study highlights the importance of the passion of the lead entrepreneur, the management team, trustworthiness of the lead entrepreneur, and a reasonable exit strategy as the most important ingredients for angel investors. This study takes the next step in understanding what angel investors are looking for from the management team. Passion, survivability, and openness to mentoring are the top three ingredients for the management team.

A greater understanding of how angel investors make their investment decisions will allow them to review how their due diligence processes align with their investment decisions. This in turn will lead to a better investment process. Additionally, entrepreneurs will have a better understanding of what angel investors are looking for.

REFERENCES

Baty, G.B. (1991). *Entrepreneurship for the 1990s*. Englewood Cliffs, NJ: Prentice Hall.

Benjamin, G.A. & Margulis, J. (2000). *Angel Financing: How to Find and Invest in Private Equity*. New York: John Wiley & Sons.

Bygrave, W.D. & Timmons, J.A. (1992). *Venture Capital at the Crossroads*. Boston, MA: Harvard Business School Press.

Carter, R.B. & Van Auken, H.E. (1992). Effect of professional background on venture capital proposal evaluation. *Journal of Small Business Strategy, 3*(1): 45-55.

Coveney, P. (1996). *Informal Investment in Britain: An Examination of the Behaviors, Characteristics, Motives and Preferences of British Business Angels*. Unpublished doctoral dissertation, Univeristy of Oxford.

Dixon, R. (1991). VCs and the appraisal of investments. *OMEGA International Journal of Management Science,19*, 333-344.

Elitzur, R. & Gavious, A. (2003). Contracting, signaling, and moral hazard: a model of entrepreneurs, angels, and venture capitalists. *Journal of Business Venturing, 18*, 709-725.

Ehrlich, S.B., Noble, A.F., Moore, T., & Weaver, R.R. (1994). After the cash arrives: a comparative study of venture capital firms and private investor involvement in entrepreneurial firms. *Journal of Business Venturing, 9*, 67-82.

Freear, J. & Wetzel, W.E. (1991, April). *The informal venture capital market in the year 2000*. Paper presented at the Third Annual International Research Symposium on Small Business Research, Florida State University.

Freear, J., Sohl, J.E., & Wetzel, W.E. (1992). *The truth about angels more than a myth*. Working Paper, Center for Venture Research, University of New Hampshire.

Freear, J., Sohl, J.E., & Wetzel, W.E. (1997). *The informal venture capital market: milestones passed and the road ahead*. In D. Sexton and R. Smilor (eds) Entrepreneurship 2000 (Chicago: Upstart Publishing Company), 47-70.

Greene, J.C., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11*(2), 255-274.

Harr, N.E., Starr, J., & MacMillan, I.C. (1988). Informal risk capital investors: investment patterns on the east coast of the U.S.A. *Journal of Business Venturing, 3*, 11-29.

Harrison, R.T. & Mason, C.M. (1992). International perspectives on the supply of informal venture capital. *Journal of Business Venturing, 7*, 459-475.

Hisrich, R. & Jankowicz, A. (1990). Intuition in venture capital decisions: an exploratory study using a new technique. *Journal of Business Venturing, 5*, 49-62.

Kauffman Foundation. (2002). *Business angel investing groups growing in North America*. Retrieved April 10, 2006, from http://www.kauffman.org/pdf/angel_summit_report.pdf.

Kauffman Foundation. (2005). *Kauffman index of entrepreneurial activity*. Retrieved April 10, 2006, from http://research.kauffman.org/cwp/ShowProperty/webCacheRepository/Documents/2005.Fairlie.KauffmanIndex.pdf.

MacMillan, I.C., Sigel, R., & SubbaNarashimha, P.N. (1985). Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing*, *1*, 119-128.

MacMillan, I.C., Zemann, L., & SubbaNarashimha, P.N. (1987). Criteria distinguishing successful from unsuccessful ventures in the venture screening process. *Journal of Business Venturing, 2*, 123-137.

Mason, C.M. & Harrison, R.T. (1996). Why 'business angels' say no: a case study of opportunities rejected by an informal investor syndicate. *International Small Business Journal, 14*(2), 35-51.

Mason, C.M. & Harrison, R.T. (2002). Is it worth it? The rates of return from informal venture capital investments. *Journal of Business Venturing, 17*, 211-236.

Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks, CA: Sage.

Ojala, M. (2002). Researching Small Business Concerns. *Online, 26*(6), 55-57.

Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage Publications.

Shepherd, D.A. (1999). Venture capitalists' assessment of new venture survival. *Management Science, 45*(5), 621-632.

Sohl, J. (n.d.). *The angel investor market 2004: the angel market sustains the modest recovery*. Retrieved April 8, 2006 from University of New Hampshire Web site: http://www.unh.edu/news/docs/cvr2004.pdf

Timmons, J.A. (1990). *Planning and Financing the New Venture*. Acton, MA: Brick House Publishing Co.

Timmons, J.A.& Spinelli, S. (2004). *New Venture Creation: Entrepreneurship for the 21st Century*. New York, NY: McGraw-Hill/Irwin.

Tyebjee, T. & Bruno, A. (1984). A model of venture capitalist investment activity. *Management Science, 30*(9), 1051-1066.

Van Osnabrugge, M. (1998). *The Financing of Entrepreneurial Firms in the UK*. Unpublished doctoral dissertation, Univeristy of Oxford.

Van Osnabrugge, M. & Robinson, R. J. (2000). *Angel investing: matching start-up funds with start-up companies: the guide for entrepreneurs, individual investors, and venture capitalist*. San Francisco: Jossey-Bass.

Wetzel, W.E. (1987). The informal venture capital market: aspects of scale and market efficiency. *Journal of Business Venturing, 2*, 299-313.