CRITERIA USED BY VENTURE CAPITALISTS TO EVALUATE NEW VENTURE PROPOSALS*

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EXECUTIVE SUMMARY

A questionnaire was administered to one hundred venture capitalists to determine the most important criteria that they use to decide on funding new ventures. Perhaps the most important finding from the study is direct confirmation of the frequently iterated position taken by the venture capital community that above all it is the quality of the entrepreneur that ultimately determines the funding decision. Five of the top ten most important criteria had to do with the entrepreneur's experience or personality. There is no question that irrespective of the horse (product), horse race (market), or odds (financial criteria), it is the jockey (entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all.

The question is if this is the case, then why is so much emphasis placed on the business plan? In a business plan there is generally little to indicate the characteristics of the entrepreneur—it is generally devoted to a detailed discussion of the product/service, the market, and the competition. To us, the implications are obvious—such content is necessary, but not sufficient. The business plan should also show as clearly as possible that the "jockey is fit to ride"—namely, indicate by whatever feasible and credible means possible that the entrepreneur has staying power, has a track record, can react to risk well, and has familiarity with the target market. Failing this, he or she needs to be able to pull together a team that has such characteristics and show that he or she is capable of leading that team.

Factor analysis of the results indicate that venture capitalists appear to assess ventures systematically in terms of six categories of risk to be managed. These are: risk of losing the entire investment; risk of being unable to bail out if necessary; risk of failure to implement the venture idea; competitive risk; risk of management failure; and risk of leadership failure.

Finally, three clusters of venture capitalists were identified: those who carefully assess the competitive and implementation risks; those who seek easy bail out; and those who deliberately keep as many options open as possible.

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THIS ARTICLE REPORTS A FORMAL STUDY OF THE CRITERIA USED BY VENTURE capitalists when they evaluate venture proposals. The objectives of study were threefold. First, it was intended as a follow up and replication of the study reported by Tyebjee and Bruno (1981), but for a broader group of venture capitalists and at a later period in time.

Second, it is hoped that the results will provide members of the venture capital community (as well as other institutions providing funds for new ventures) with an aggregate picture of what the most common current criteria are and what current weights are being attached to each criterion by their peers. Finally, the results should provide those seeking funds with an idea of what the critical criteria are. They can then assess how their ventures compare with these criteria and take the steps necessary to resolve any major flaws in their proposals before submitting them. Given that most venture capital firms are operated with lean staff, the fact that they are inundated with proposals becomes a significant bottleneck in their operations. Two disadvantages result—first the venture capitalist's time is consumed with the processing, evaluation, and subsequent rejection of flawed proposals, which unneccesarily distracts them from more productive activities; second, some viable proposals are rejected because they have flaws that could have been removed if the entrepreneurs were alerted to them before they were submitted to the venture capitalist.

By expanding venture capitalists' awareness of the weights being attached to various criteria by their peers, and by alerting those seeking venture capital funds to potential flaws that can be rectified before submission, it is hoped that enhanced knowledge of evaluation criteria will help make the venture capital market a little more efficient.

METHODOLOGY

First, fourteen venture capitalists in the New York metropolitan area were interviewed in order to establish what criteria they use in evaluating venture proposals. Twenty-seven such criteria were identified, collated, and assembled in Table 1. The criteria were classed into six major groups. In Table 1 were group I, those to do with the entrepreneur's personality; group II, those to do with the entrepreneur's experience; group III, those to do with the characteristics of product/service; group IV, those to do with characteristics of the market; and group V, those to do with financial considerations. In Table 2 was group VI, those criteria that had to do with composition of the venture team.

These criteria were then assembled into a questionnaire. The first 24 criteria were scaled on a four point scale, as per Table 3. In this questionnaire, a four point scale was deliberately chosen in such a way that each advance up the scale represents a distinct and clear increase in the importance of the criterion.

As a check on consistency, we also asked the respondents to specify the five most important criteria. These selections should correlate highly with the criteria that had been rated highest in the first part of the questionnaire. This turned out to be the case.

The questionnaire was mailed to all members of the National Venture Capital Association, and all members listed in Venture Magazine's 1983 Directory of Venture Capitalists. A total of 150 questionnaires was sent out, and 102 responses were received, indicating a very high level of interest in the project.

In the questionnaire we also asked respondents to list any additional criteria that they considered to be important. Only five additional criteria were suggested, none of which were reported by other respondents. We took this as evidence that the additional criteria suggested were not widely used.

TABLE 1 Criteria and Results

	Mean	SD
I. The entrepreneur's personality		
1. Capable of sustained intense effort.	3.60	0.57
2. Able to evaluate and react to risk well.	3.34	0.73
3. Articulate in discussing venture.	3.11	0.71
4. Attends to detail.	2.82	0.69
5. Has a personality compatible with mine.	2.09	0.81
II. The entrepreneur's experience		
6. Thoroughly familiar with the market targeted by venture.	3.58	0.57
7. Demonstrated leadership ability in past.	3.41	0.67
8. Has a track record relevant to venture.	3.24	0.69
9. The entrepreneur was referred to me by a trustworthy source.	2.03	0.62
10. I am already familiar with the entrepreneur's reputation.	1.83	0.71
III. Characteristics of the product or service		
11. The product is proprietary or can otherwise be protected.	3.11	0.71
12. The product enjoys demonstrated market acceptance.	2.45	0.74
13. The product has been developed to the point of a functioning prototype.	2.38	0.90
14. The product may be described as "high tech."	2.03	0.96
IV. Characteristics of the market		
15. The target market enjoys a significant growth rate.	3.34	0.64
16. The venture will stimulate an existing market.	2.43	0.76
17. The venture is an industry with which I am familiar.	2.36	0.78
18. There is little threat of competition during the first three years.	2.33	0.72
19. The venture will create a new market.	1.82	0.83
V. Financial considerations		
20. I require a return equal to at least 10 times my investment within 5–10 years.	3.42	0.79
21. I require an investment that can be easily made liquid (e.g., taken public or acquired).	3.17	0.89
22. I require a return equal to at least 10 times my investment within at least 5 years.	2.34	0.81
23. I will not be expected to make subsequent investments.	1.34	0.52
24. I will not participate in latter rounds of investment (requires my participation in the initial round of investment).	1.20	0.45

Sample size: 100; scale: 1–4, where 1 means irrelevant and 4 means essential (see Table 3).

TABLE 2 Criteria Relating to Venture Team Composition

CIRCLE THE SINGLE ITEM BELOW THAT IS *ESSENTIAL* FOR THE VENTURE TO GO FORWARD

VI. The venture team
25. The venture is initiated by one person with the relevant experience to his idea.
26. The venture is initiated by more than one individual, each having similar relevant experience.
27. The venture is initiated by more than one individual, the individuals constituting a functionally balanced management team.
28. None of the above are essential for the venture to go forward.

TABLE 3 Questionnaire Format

Based upon interviews conducted with a number of venture capitalists, 27 criteria have been identified as being relevant to the decision to fund a venture.

Please weight the importance you attach to each criterion by circling the appropriate number. A four point weighting system is used with each point being defined as follows:

1. Irrelevant—Not a factor in the decision-making process.
2. Desirable—A factor which improves the likelihood of investment.
3. Important—A factor which must be present in order for an investment to take place, unless other factors specifically compensate for this factor's absence
4. Essential—A factor which must be present under any circumstances in order for an investment to take place.

Such a study has all the weaknesses of a self-report study. It is possible that respondents could be influenced by their perception of what is a desirable response or a response that is seen as appropriate to their position as representatives of the venture capital community, rather than the criteria they actually use. There is also a danger that some respondents may not actually use the criteria in the ways that they think they do. This will be tested in a later study. Given these limitations, the results reported below need to be interpreted with some circumspection.

ANALYSIS OF RESULTS

Means and standard deviations of the responses appear in Table 1. From a review of these means and standard deviations, one can make the following observations.

Personality and Experience

The most important personality characteristics are evidence of staying power and an ability to handle risk. Given the low standard deviation of the result for staying power, it is clear that there was high consensus on the need for staying power.

On the other hand, venture capitalists in general claimed they were not much concerned with whether the entrepreneur had a compatible personality. However, the high standard deviation for this criterion does indicate that some venture capitalists do regard it as important, but not essential.

There was high consensus that the key experience requirement was a thorough familiarity with the target market. Almost as important were demonstrated leadership capability and a track record that is relevant to the venture. Of least concern was the need of the venture capitalist to be familiar with the entrepreneur's reputation.

Product and Market Characteristics

The most important product characteristic appears to be some proprietary protection. On the other hand, venture capitalists claimed that the need for the product to be "high tech" was not important. This is a surprising claim, given that about 70% of all ventures are in the high tech category (*Venture Capital Journal* 1984). However, the high standard deviation for this variable indicates that there are many who regard high tech as important.

The critical market requirement is a high growth rate. In general, other market characteristics were not regarded as important.

Financial Considerations

As expected, the key financial concerns are with high upside potential and high investment liquidity. Most venture capitalists recognize that the payout is only likely in 10 years, rather than 5 years, but still expect a handsome return on that investment. Of least concern—generally considered irrelevant—was whether or not they were involved in the first round of financing and whether or not they would be expected to make subsequent investments. In general, personality and experience concerns dominate the financial criteria, which in turn are regarded as more important than product or market criteria.

FLAWED VENTURES

The next issue of interest is the degree to which certain venture characteristics disqualify them for the venture capitalist. To assess this we identified the 10 criteria that were most frequently rated as essential by the respondents. The results are listed in Table 4. Note that a rating of "essential" means that the responding venture capitalist would reject the plan regardless of any other characteristics, no matter how redeeming.

In Table 4, five of the ten criteria most commonly rated as essential have to do with the entrepreneurs themselves—by and large venture capitalists will not back ventures unless the entrepreneur is capable of sustained effort, has demonstrated leadership in the past, evaluates and reacts to risk well, has a track record relevant to the venture, and is capable of articulating the venture well.

What becomes even more interesting is to identify the characteristics of "critically flawed" proposals—that is, proposals that would be rejected by a significant majority of venture capitalists if they had only two flaws. These results are in Table 5, which lists the ten most serious combinations of flaws.

TABLE 4 Ten Criteria Most Frequently Rated Essential

	Percent
Capable of sustained intense effort	64%
Thoroughly familiar with market	62%
At least ten times return in 5–10 years	50%
Demonstrated leadership in past	50%
Evaluates and reacts to risk well	48%
Investment can be made liquid	44%
Significant market growth	43%
Track record relevant to venture	37%
Articulates venture well	31%
Proprietary protection	29%

TABLE 5 Percentage of Venture Capitalists Who Would Reject Proposals Which Fail on Two Criteria

Pairs of criteria	Percentage who reject the proposal
1. Capable of effort Return of ten times within 5–10 years	84%
2. Capable of effort Functionally balanced management team	80%
3. Demonstrated leadership Familiar with target market	80%
4. Capable of effort Demonstrated leadership	79%
5. Able to evaluate risk Familiar with target market	77%
6. Capable of effort Track record relevant to venture	77%
7. Able to evaluate risk Return of ten times within 5–10 years	76%
8. Capable of effort Significant growth rate of market	76%
9. Demonstrated leadership Return of ten times within 5–10 years	75%
10. Capable of effort Proprietary product	75%

The results of Table 5 can be interpreted in the following way. Take item one on the list. If a new business were proposed in which the entrepreneurs appeared to have little staying power and the business did not at least show the potential for delivering a return of 10 times within 10 years, then 84% of all venture capitalists in the sample (a sample that is highly representative of the whole venture capital community) would reject the proposal, however redeeming its other features may be. Such a proposal would be critically flawed, in that it would get an "audience" with only 15% of the venture capital community, who would then still assess it for further flaws. So its chances of being funded at all would be miniscule unless the proposers of the venture could find some way of identifying and compensating for these critical flaws.

In every case in Table 5 the critically flawed ventures had at least one criterion that concerned the entrepreneur's personality or experience. So entrepreneurs seeking funding

TABLE 6 Required Venture Team Composition

	Percent responses
One person with relevant experience essential	20%
Team with similar experience essential	9%
Balanced team essential	42%
None essential	28%

who have any of these personality or experience flaws must realize that they are wasting their time unless they can assemble around them a team of people who can compensate for these flaws.

Table 6 reinforces this point—it shows that just under one-half of venture capitalists will not even consider a venture that does not have a balanced team for the venture. Once again, the venture would be rejected irrespective of how glamorous the industry was or exciting the proposed product was.

FACTOR ANALYSIS

In order to explore whether there was a more general pattern underlying the venture capitalists' responses, the data were factor analyzed. Because many of the criteria were not considered to be important by respondents, only those factors that had a mean score significantly greater than 2.0 were included in the factor analysis. This means that all criteria with a mean score of less than 2.8 were excluded ($t = 1.98$, $P < 0.05$). The results of the factor analysis are reported in Table 7.

In attempting to explain these factors, we fell back on a concept elaborated by Driscoll (1974) who suggested that the role of the venture capitalist goes beyond the mere provision of funds to the venture. He contended that the real challenge to the venture capitalist lies

TABLE 7 Rotated Orthogonal Factor Analysis for Evaluation Criteria

	Factor					
	1	2	3	4	5	6
Little threat of competition	<u>80</u>	16	−9	−11	2	9
Product stimulates existing market	<u>67</u>	8	30	28	7	−7
Proprietary product	<u>56</u>	6	−2	−7	0	49
Investment liquid	5	<u>78</u>	8	−8	−22	6
Venture capitalist familiar with industry	19	<u>67</u>	−6	−9	28	−12
Attends to detail	5	−19	<u>67</u>	5	22	−4
Relevant track record	−15	7	<u>60</u>	0	6	51
Significant growth rate	29	43	<u>59</u>	15	−35	−5
Return > 10 times in 10 years	2	31	<u>48</u>	−21	−7	14
Capable of intense effort	−11	25	−16	<u>78</u>	−6	15
Evaluates and reacts to risk well	2	−20	21	<u>66</u>	6	−19
Familiar with markets	38	−4	0	<u>50</u>	6	21
Functioning prototype	23	4	10	−8	<u>71</u>	−9
Demonstrated mkt. acceptance	−4	−24	−9	−3	<u>60</u>	26
Articulate in discussing venture	−19	22	22	30	<u>57</u>	9
Demonstrated leadership	14	−6	5	9	8	<u>80</u>
Variance explained	1.82	1.66	1.65	1.60	1.53	1.38
Percent variance explained	16.7%	10.4%	9.8%	8.8%	7.8%	6.7%

in managing the risks of the venture. This theme of "managing the risk" is what seems to draw together the evaluation criteria that were loaded onto each factor.

Factor 1 is associated with a concern with *competitive risk*. A venture with a proprietary product that has little threat of competition within 3 years and an existing market is clearly competitively insulated.

Factor 2 reflects a concern with managing *bail out risk*. Venture capitalists who are thoroughly familiar with the industry and have a highly liquid investment in that industry will be confident that they will know when to bail out and be able to do so if necessary.

Factor 3 represents a concern with *investment risk*. Ventures run by meticulous entrepreneurs, with sound track records, in high growth markets, and the prospect of 10 times payback in 5–10 years are relatively insulated from the threat of total loss of the investment.

Factor 4 relates tó *management risk*. The venture capitalist who backs a venture where the entrepreneur is capable of intense sustained effort, knows the market thoroughly, and reacts well to risk will be relatively comfortable that the venture will not be mismanaged.

Factor 5 taps *implementation risk*. Ventures in which the entrepreneurs have a clear idea of what they are doing, who have already developed a functioning prototype, and which product has a demonstrated market acceptance are more cushioned from product and market development failures.

Factor 6 reflects a concern with *leadership risk*. It stands apart from other characteristics of the entrepreneur, such as staying power, experience, ability to evaluate risk, and so on, and addresses the issue of whether the entrepreneur is also able to lead others. If the entrepreneurs cannot do this, then despite their other positive characteritics the venture could still fail. Unfortunately, this is a single item factor. Future research could include more items that tap leadership qualities.

Tyebjee and Bruno (1981) independently developed a questionnaire with the six factors that they identified have a number of areas of high correspondence. First they found a factor that they called uncontrollable risk, which paralleled our competitive risk. Second, their cash out factor paralleled our bail out risk. Next, their quality of management factor was associated with the management risk that appeared in our study; their viability factor approximated the implementation risk that our analysis identified; and their market factor correlates with the investment risk we found.

The major shift that has occurred since Tyebjee and Bruno's study is that venture capitalists in the mid-1980s have reduced their expectation of specific skills (marketing, technical, and so on) on the part of the entrepreneur and shifted these expectations to the venture team.

From the above discussion, the factors that were identified seem to tap all the major risks associated with new ventures. To the extent that the venture capitalists can screen ventures and accept those that have some insulation from each of the above risks, they will have done everything possible to manage the risk of the ventures in which they do invest.

CLUSTER ANALYSIS

The last area of interest is whether there are any broad types of venture capitalists, with common approaches to the overall evaluation of venture proposals. To determine this, we carried out a cluster analysis of all criteria that had a mean value significantly greater than 2.0. The cluster analysis for which the cubic clustering criterion appeared to have a change in slope was not distinct, but occurred between the 3 and 4 cluster solution. In the interest of parsimony, we selected the 3 cluster solution. The results are presented in Table 8.

TABLE 8 Cluster Analysis: Results for Three Cluster Solution

	Cluster 1—purposeful risk managers	Cluster 2—determined ecletics	Cluster 3—parachutists
Entrepreneur's Personality			
Evaluates risk well	−0.99	0.53	0.28
Capable of sustained effort	−0.55	−0.57	1.82*
Articulate in discussing venture	1.04	−2.25**	1.03
Attends to detail	2.46**	−0.08	−2.56**
Entrepreneur's Experience			
Relevant Track Record	0.39	0.38	−0.81
Demonstrated leadership ability	2.58**	−1.06	−1.52
Familiar with market	0.80	0.44	−1.25
Characteristics of Product/Service			
Product protectable	3.86***	−1.93*	−2.32**
Product has market acceptance	2.10**	0.98	−1.68
Prototype developed	3.14***	3.39***	−1.13
Market Characteristics			
Product stimulates existing market	2.69**	0.19	−2.70***
Market has high growth rate	1.59	−1.81*	0.22
Low threat of early competition	3.39***	−2.14**	−2.23**
Venture capitalist familiar	2.08*	−4.65***	1.75*
Financial Considerations			
Ten times investment in ten years	1.33	−0.52	−0.72
Highly liquid investment	1.50	−3.35***	6.49***
Sample size	41	32	27

*$P < 0.1$.
**$P < 0.05$.
***$P < 0.01$.

The first cluster, which represents about 40% of the venture capitalists in the sample, was representative of a group of venture capitalists we called "Purposeful Risk Managers." This group of venture capitalists is inclined to expect several attributes in the venture that assure that the various risks that were identified in the factor analysis are well managed. This group seeks the following: entrepreneurs with demonstrated leadership skills and a product and market with characteristics that clearly reduce the risk to manageable levels. They prefer protectable products, for which a prototype has been developed; there is clear market acceptance in an existing market with which the venture capitalist is familiar and in which the threat of early competition is low. Whereas few ventures will have all of these characteristics, the venture capitalists in this group seek ventures that are high on as many of these as possible—the idea being to manage down the inherent uncertainty of venturing by seeking such risk managing characteristics at the very start of the venture.

The second group of venture capitalists is totally different, so much so that they have been dubbed "Determined Eclectics," because they appear to deliberately impose an absolute minimum number of restrictions on what ventures they will be prepared to consider. Thus they rate most criteria low compared to the purposeful risk managers. This is not a surprising result. A substantial number of venture capitalists take pride in being open to all types of venture proposals and in being prepared to consider any deal. Whether the openness to review deals is translated in equally broad based investment behavior is another issue. They comprised a solid 33% of all the venture capitalists in our sample.

Finally, there is a group of about 25% of the venture capitalists whom we call "Parachutists." They are perfectly willing to support most ventures as long as they feel that they have a high liquidity "parachute" via which to escape with if things go wrong. In fact, they appear to feel that as long as they have an entrepreneur who has staying power, a venture in an industry with which they the venture capitalists are familiar, and a highly liquid investment, they can commit to any such venture, secure in the knowledge that they will be able to spot problems and bail out if necessary.

CONCLUSIONS

Perhaps the most important finding from the study is direct confirmation of the frequently iterated position taken by the venture capital community that above all it is the quality of the entrepreneur that ultimately determines the funding decision. In Table 1, five of the top ten most important criteria had to do with the entrepreneur's experience or personality. In Table 5, every pair of criteria included at least one that concerned the entrepreneur. There is no question that irrespective of the horse (product), horse race (market), or odds (financial criteria) it is the jockey (entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all.

The question is if this is the case, then why is so much emphasis placed on the business plan? In a business plan there is generally little to indicate the characteristics of the entrepreneur—it is generally devoted to a detailed discussion of the product/service, the market, and the competition. Such content is necessary, but not sufficient. The business plan should also show as clearly as possible that the "jockey is fit to ride"—namely, indicate by whatever feasible and credible means possible that the entrepreneur has staying power, has a track record, can react to risk well, and has familiarity with the target market. Failing this, he or she needs to be able to pull together a team that has such characteristics, and show that he or she is capable of leading that team.

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