

**TRADE-OFFS IN THE VENTURE
CAPITAL DECISION**

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TRADE-OFFS IN THE VENTURE CAPITAL DECISION

Muzyka, Birley, and Leleux

INTRODUCTION

By their very nature, new ventures carry high levels of risk for those involved. Moreover, the more complex the business and the larger the levels of investment required, the greater are likely to be the chances of failure. Yet it is in these circumstances that entrepreneurs are less likely to be able to fund the business from their own or their family resources. As a result, they seek external investors, usually from within the Venture Capital community. Here, the people with whom they are dealing are unlikely to be able to draw upon personal knowledge of the entrepreneurial team or upon the business "track record", and so must rely upon other criteria to inform their decision.

Several studies of venture capital investment criteria have been carried out previously, often utilizing traditional Likert-scaled survey methods. They have produced some general findings which indicate that the "human factor" is of utmost importance. However, virtually all of these studies have been undertaken with U.S. based venture capitalists. In addition, they have generally been exploratory and have assumed a single hierarchy of decision criteria in all cases and across all venture capitalists. We do not accept that this latter is a valid assumption. Therefore, this research aims to test this presumption by investigating the "trade offs" made by venture capitalists in Europe.

PREVIOUS RESEARCH

Zopounidis (1994) provides a useful summary of the previous research in this field. He groups the studies into three - descriptive methods, evaluation using linear statistical methods (primarily regression and discriminant analysis), and multi-criteria evaluation. Interestingly, this categorisation clearly demonstrates the evolving nature of the research. Thus, the earliest of the first wave of descriptive studies (Briskman 1966; Sappho 1973; Von Hippel 1973) attempted to ascertain a posteriori criteria which discriminated between ventures on the basis of their eventual success. Subsequent studies, conducted between 1973 and 1991, have sought to ascertain the relative importance of various criteria through some form of counting (Benoit 1975; Tyebjee and Bruno 1984), rating scale (Wells 1974; Dixon 1991) or ranking scale (Poindexter 1976; MacMillan et al. 1985). Zopounidis (1994) concludes that *"the evaluation criteria.....and their relative importance differ from one study to another.."* although *"there are some criteria which predominate....management team, the market..."* On reflection, this conclusion is not particularly surprising to these researchers for two very distinct reasons. First, the industry has changed significantly over

the period in terms of its sophistication and experience base, and in terms on the economic environment within which investments have been made. Second, even were these two circumstances held constant, it is likely that there would be differences in ranking of criteria between venture capital firms as a result of their market positioning.

Two studies best illustrate the second wave of linear models. Interestingly, both emanate from researchers in the first wave. Thus, MacMillan et al. (1987) used multiple regression to predict the success of the 150 ventures evaluated by 67 American venture capitalists. More important from the perspective of this research, factor analysis of their data identified five **groups** of criteria which they concluded refer to five types of risk - management risk, investment risk, competitive threats, viability risk, and cash-out risk. Interestingly, in the second of their studies Tyebjee and Bruno (1984) also constructed five similar groups of criteria using factor analysis - managerial capabilities, market attractiveness, product differentiation, environmental threat, and cash-out potential - and used regression analysis to show their apparent interdependence.

These early studies provided some generally useful ranking of the relative importance of various decision factors derived from scaling methodologies. However, almost all have the inherent limitations of scaling in that there are inevitable differences in discrimination between what is considered important. So, for example, for some respondents, a "3" on a "5" point scale indicates a lower degree of importance while for others only a "1" truly indicates something of lesser importance. The later two venture capital studies, which attempt to rectify these problems, were conducted outside the United States. Zopounidis (1994) cites a previous study of his own (Siskos and Zopounidis 1987) which produced an *"automatic global evaluation model of firms for two French venture capital firms"*. They report the use of MINORA, a computerised system which uses iterative trial and error to model evaluation criteria and which he suggests *"....can be well adapted to express the preferences, the knowledge, the experiences and the judgements of French venture capitalists..."* The paper by Riquelme and Rickards (1992) in the UK was first published during the course of our research. They studied several methods for identifying decision criteria and arrived at the same conclusions as had we: perhaps a new methodology could provide a clearer understanding of the **trade-offs** which usually apply for venture capital investment criteria. They suggest the use of conjoint analysis, the technique we have chosen for our basic methodology.

RESEARCH ISSUES

The purpose of the study was threefold:

1. To address the need for further information on venture capital decision criteria in Europe, as opposed to the U.S.A.
2. To test for national differences, based on investment decision criteria, among venture capitalists in Europe
3. To improve the understanding of these criteria and to determine if there were "decision groups" of venture capitalists who applied similar models.

Thus, the research questions used were:

- * *What are the key factors used by European venture capitalists in evaluating potential investments?*
- * *Are the factors consistently applied by venture capitalists throughout Europe?*
- * *Are there any clusters or groupings of venture capitalists based on the decision criteria applied?*

At the outset, we hypothesized that, given the development of formalized venture capital funds in Europe following the development in the U.S., and the connections which U.S. funds had in Europe, it was likely that the criteria applied by venture capitalists in the U.S. would be similar to those applied in Europe. In effect, we believed that it would be most important to have the correct team rather than the most optimistic initial financial forecasts. In addition, given the pervasive influence of U.S. decision models and the comparatively recent development of this source of funding, we hypothesized that the decision models would not vary significantly by country.

RESEARCH DESIGN

The analytical model: The primary issue when designing the study was the choice of methodology. We wished to move beyond presenting the venture capitalists with a "laundry list" of factors contained in a Likert-scaled survey with the resultant problems noted earlier. Therefore, we decided to use a methodology which has been applied in both research and commerce to explore the decision models of individuals and groups. The methodology employed is entitled "conjoint analysis" (multi-dimensional scaling). It is a technique which has been applied very successfully in marketing research for the purposes of determining the relative importance of product and/or service attributes (see Green and Srinivasan, 1978) and its reliability has been well demonstrated.

The choice of this analytical model more clearly determined the overall design since the objective of the conjoint analysis method is to measure quantitatively the **relative importance** of a list of attributes set **against each other**. The method, which has several variants, is based on requesting the decision-maker to make a series of paired trade-offs determining which of two given factors all else being equal, is the more important. The results of this process are then processed through an analytical model based upon multi-attribute utility theory.

One of the variants used is entitled the "full profile approach". Here, the respondent is asked to look at a set of two objects containing a full range of factors that describe each of the objects. They are then requested to determine which of the two objects is more desirable. This results in the relative ranking of factors through a series of comparisons of such objects. Rather than describing objects with a full set of factors, a second technique involves the trade-off of pairs of individual factors. This approach, which was chosen for this study, has strong advantages when dealing with a number of factors which are not environmentally correlated. It also yields overall higher predictive validity with longer lists of factors (Green and Srinivasan, 1978).

The Factors: When utilizing conjoint analysis, it is most important to be clear in the definition of the factors so that there is little ambiguity in the respondent's mind concerning the tradeoffs they are making. In addition, given that the number of attributes is fixed a priori, it is important to have a complete set of factors so that errors of omission do not occur.

The research approach that we took involved several key stages. We culled the literature to identify those factors previously determined by research which were relevant to venture capitalists in choosing investments. In addition, we conducted 7 open-ended interviews with venture capitalists to capture both their lists of factors considered and the particular language used. This process produced the 35 **individual** factors listed in Table 1. For convenience, they are grouped within the following seven general categories. However, in view of the methodology adopted, it is important to be clear that this categorization was constructed ex-post the data collection in order to facilitate analysis and presentation of the results.

- * **Financial Factors:** Factors related to the apparent financial aspects of the investment opportunity.

- * **Product-Market Factors:** Factors related to market size, maturity, and growth, as

well as the location of the market and its sensitivity to economic cycles.

- * **Strategic-Competitive Factors:** Factors related to the strategic positioning of the investment opportunity in their market place.
- * **Fund-Factors:** Factors related to constraints of the investment fund and ability of investors to influence the deal.
- * **Management Team Factors:** Factors related to the leadership potential and track record of the lead entrepreneur and the management team.
- * **Management Competence Factors:** Factors related to the competencies and/or capabilities of the management team in important functional areas.
- * **Deal Factors:** Factors related to the stage and nature of the investment deal.

Using these 35 factors and some conjoint analysis software which had been developed by one of the authors (see Crittenden, et.al., 1989 and Muzyka, et.al., 1986) and was based on commonly utilized algorithms (Green and Srinivasan, 1978), a preliminary questionnaire was developed. The specific algorithm applied attached "levels" or gradations to the factors. For example, for the purposes of the tradeoffs, the criteria "sensitivity to economic cycles" was graded into "high", "medium" and "low" levels of sensitivity. The questionnaire that resulted from this algorithm was a *multi-attribute, pairwise, trade-off survey with multiple levels*.

The Pilot: The preliminary survey was tested on a sample of 5 venture capitalists to determine whether the language and the instructions were clear and whether the factors represented a complete list. These surveys were conducted in person so that the respondents could be observed. No additions or deletions occurred in the list of factors as a result of this process, although some language describing the factors was modified.

The Questionnaire: Based on these modifications, a new series of questionnaires was generated. The questionnaires were translated into languages which were appropriate to the various groups of entrepreneurs in order to facilitate completion by the venture capitalists and to preserve the general "sense" of the factors.

As noted above, the survey was designed to be analyzed using a multi-attribute, pairwise conjoint analysis algorithm. A sample of one page of the survey is shown in Table 2. Two

separate tradeoff boxes were included on each page and were presented to venture capitalists in random order.

In addition to the information provided in the tradeoffs, various elements of demographic information were collected concerning the respondents and their funds.

The Data Collection: As the methodology was different from that generally employed in questionnaires, and also being aware of the venture capital community's attitude toward surveys, we decided to allocate a significant time span for person to person interviews since we were aware that the questionnaire would take between 45 minutes and an hour to complete. We contacted the chosen venture capitalists by telephone, solicited their general consent to participate in the survey, and scheduled a time to visit them to deliver and describe the survey. At the interviews, we described the survey, its purpose and how to complete it. Respondents were encouraged to begin filling out the questionnaire during the interview. Most surveys were completed after the interview by the respondent and mailed or faxed to us.

The Analysis: The survey data was transferred to the conjoint model in order to compute the relative rankings of the investment decision factors. These individual rankings were then averaged to determine the overall ranking of the individual respondent factors, providing some general insight into the overall importance of the various investment decision factors in the European context.

The rankings by individual were then correlated (spearman rank-order correlation) to test for similarity among respondents and as input to an unweighted pairwise cluster analysis algorithm. This cluster analysis would show whether any groupings of venture capitalists based on decision criteria existed.

The Sample: Our research objective was to sample approximately 20% of venture capital funds within Europe (60 surveys). In the event, we gathered 73 questionnaires. In our design, we attempted to ensure a broad cross-section along the lines of geographic distribution (most of the venture capitalists are located within 10 countries in Europe), round of investment (e.g., first round versus expansion capital), and scale of fund (e.g., small "boutique" funds versus "mega" funds). We used the credibility of our networks and personal contacts in order to gain access. Since we received returns from more than 90% of those who initially agreed to participate, we feel comfortable that we have achieved our aim.

Table 3 shows the distribution of responses by country and is a reasonable reflection of the

magnitude of venture capital provision in each country.

A Caveat: As a note to researchers, we would like to make it clear that within the European context, survey research of this kind is very difficult (see, for example, Birley et al. 1994). Unlike the U.S.A., where there is a relatively well-established tradition of providing information, no such tradition exists within European countries, possibly with the exception of the U.K.. European norms concerning privacy vary by country but are very well established. In addition, there is a general reluctance by any group to discuss what they may view as trade-secrets. Moreover, at this time, European venture capitalists are somewhat "burned out" by questionnaires mailed to them from the U.S. and by surveys which have recently been conducted by various institutes in Europe, including their own organisation, the European Venture Capital Association. This feeling of annoyance, particularly with comparatively un-informed researchers, has recently been exacerbated by pressures generated by industry concerns over venture capital returns and investment exit barriers.

We were aware from the outset that these issues would work against us in realizing our sampling objectives, particularly as the questionnaire required significant time and personal concentration. However, we had only a few refusals to participate in the study and no "non-response" problems. Therefore, we would suggest that it is important in the European context to be well-informed in approaching the venture capitalists, and to meet with them personally since this denotes seriousness of effort. We were also told repeatedly that the novelty of our questionnaire and analytical approach was one reason people agreed to participate. Quite simply, they enjoyed the exercise.

FINDINGS

Overall, the venture capitalists surveyed exhibited a great deal of consistency in the relative importance they attached to factors considered in selection of investments. As part of the analysis, we computed the Spearman rank order correlation between each set of rankings. The correlations ranged from -0.49 to 0.73¹.

Table 4 shows the relative number of factors from each of the seven groups that appeared in each quintile of the overall rankings and the first column of Table 5 the individual factor rankings. An interesting pattern emerges. The Product-Market factors appear to be only moderately important; and the Fund and Deal factors appear at the bottom of the rankings.

¹ For a list of 35 factors, a Spearman Rank-Order Correlation above 0.4 is significant at $p=0.05$ level

All 5 of the Management Team factors ranked were among the first 7, with the leadership potential of the lead entrepreneur and of the management team ranking first and second respectively. Following this, the two most important factors are a product with an ability to sustain a competitive market position and a team capable of delivering this in the market place. The financial factors of "ability to cash-out"(9), "expected rate of return"(11), and "time to break even"(12), demonstrate the urgency with which the venture capitalists view their investments. By contrast, the issues around the nature of the potential deal, such as the "ability to syndicate"(31), and the "fit with the fund"(28) are, clearly, second order issues in Europe.

This latter is an important finding. Received wisdom has been that entrepreneurs should take care to seek and approach only those funds which fit their business. Yet venture capitalists will seemingly work with most deals, even if they do not fit particularly well with the rest of their investment portfolio, or even if the nature of the financing (e.g., round of investment) is not appropriate for the fund. The ability to syndicate the deal, the structure of the deal, and the scale of the deal do not appear to make a lot of difference in initial screening. Possibly, the venture capitalists feel these are unimportant or, alternatively, that they can find a way to restructure the deal to overcome such barriers. Clearly, these data suggest that the priority for the venture capitalist is a good "business deal".

A second piece of "received wisdom" in the European Venture Capital community is that national location breeds differences in the perception of opportunity, and, therefore, the nature of investments. This is possibly due to the fact that the European Venture Capital Association (EVCA) statistics show that the great majority of funds are raised and invested within a given country (EVCA Year Books). However, this survey suggests that, whilst both fund raising and investment has primarily occurred within one country, there appears to be little in the way venture capitalists perceive opportunity that would lead them to be nationally biased in selecting their investments. As can be seen in Table 5, "national location" of the product-market and the "location of the business relative to the location of the fund" are factors ranked 24 and 35 respectively

Overall, as we had expected. these results suggest that the venture capitalists interviewed would, as a group, **prefer to select an opportunity which offers a good management team, and reasonable financial and product-market characteristics, even if the opportunity does not meet the overall fund and deal requirements.** The obvious, and common sense, logic appears to be that without the correct management team and a reasonable idea, good financials are generally meaningless because they will never be

achieved.

Cluster Analysis: It is clear from the data presented in Table 5 that, whilst there is some overall pattern to the rankings of the criteria, there is also clear variability. Moreover, the technique which we adopted had forced the respondents to make comparative judgements and was selected because we assumed that any overall pattern which emerged would mask different strategic approaches to the investment decision - that not all would conform to this "common pattern". Therefore, we subjected the data to SPSS QUICK CLUSTER analysis. There was no particular guidance from the literature as to the selection of the number of clusters, other than that it should not be greater than $n/30$ (Lehmann, 1979). This would lead us to select two or three clusters. In the event, we ran the analysis for two, three, and four clusters with virtually the same results for the latter- two large clusters and one or two very small clusters. Examining the characteristics of the members of each cluster, it was clear that there was a clear group of four "outliers" who formed the base of the two small clusters. Accordingly, the three cluster solution appeared to be the most appropriate for further analysis. The cluster mean values are shown in Table 5.

The Common Factors: The first important point to note from Table 5 is the high level of agreement amongst the venture capitalists as to the relative importance of many of the factors. Thus, taking a 5% significance level, there is no significant difference between the clusters on 13 (37%) of the factors listed, and a significant difference at the 10% level for a further 5 (14%) of the factors. This was not what we had expected. Interestingly, agreement appears to fall in the middle and low rank of product-market factors and financial factors (Table 6). So, for example, all agree that "ability to cash out" is important, whilst market size, sensitivity to economic cycles and seasonality of product-market relatively unimportant.

The Disputed Factors: There is a third piece of "received wisdom" which states that venture capitalists invest primarily in "management, management and management". Certainly, that was the indication from the initial ranking. Moreover, we had expected this commonality of view to be sustained during the cluster analysis. This proved not to be the case. At a 10% level of significance, there is disagreement about the relative importance of the top eight ranked factors, including the five management team factors (Table 5).

The Clusters: The cluster descriptions below are derived from examining the mean ranks shown in Table 5. A score which is underlined indicates a rank more than half a standard deviation away from the mean; and a score which is asterisked indicates that it is also above the mean.

Cluster 1, *The National Investors*: This group of 18 venture capitalists are less concerned than the rest about -

- * the time to break even
- * the ability of the business to sustain a share competitive position
- * recognised industry expertise in the team
- * the organisational/administrative capabilities of the team

However, they would appear to prefer a national location where they can the more easily interpret the nature and degree of competition. This is consistent with their greater concern about unclear assumptions and their focus upon a particular, though not single, stage of investment.

Cluster 2, *The Dealers*: Overall, this group of 4 venture capitalists are much less concerned about management factors than their colleagues. Moreover, unclear assumptions do not appear to worry them. However, whilst national location relative to fund location is important, their primary focus would appear to be upon the characteristics of the deal, the fit with their portfolio, and of the time to break even.

Cluster 3, *The Main Stream Investors*: By far the largest cluster is the group of 51 venture capitalists which would also appear to define general practice. Indeed, they fall close to the mean scores on **all** the thirty five factors listed. They also conform to our previous description of "received wisdom". When asked to make tradeoffs in their investment decisions, they consistently, **and instinctively**, rank the five management team factors at the top of their list followed by:

- * Sustained share competitive position
- * Marketing/sales capability of the team
- * Organisation/administrative capabilities of the team
- * Ability to cash out
- * Degree of product/market understanding

This is not to suggest that product/market factors are unimportant but, rather, that a good management team can lift a mediocre product but an indifferent management team is less likely to be able to cope with a strong product. This is intuitively acceptable to these researchers.

Clearly, the question which follows from this analysis is whether these clusters have some

relation to locational or fund characteristics, particularly in view of our cluster of *National* investors. Interestingly, this would appear not to be the case. There is no country bias, a conclusion which is sustained if the countries are grouped by physical proximity (the north versus the south of Europe) or by size of the venture capital community, a surrogate for experience. With regard to fund, there is no relationship to the scale of the fund, the typical round of financing, or the apparent network.

IMPLICATIONS

The findings from this research have implications for three different groups: (1) European venture capitalists, (2) entrepreneurs seeking funding from them and (3) research community.

Venture Capital Community: The findings of this research for the venture capital community in Europe are relatively clear, but important. There has been much speculation among national venture capital associations about differences in practice. It is clear from these results that any differences, either in practice or in individual professional development, do not impact the perception of the risk capital opportunity. Thus, it would seem that venture capital in Europe is now a truly Pan-European activity.

Many of the European venture capital funds in Europe make very clear statements in their literature as to their focus upon particular industries or stages of development. However, both our experience and anecdotal evidence had suggested that these rules are only loosely applied. Our results would appear to support this. The venture capital community and, indeed, entrepreneurs, should be aware that its members are willing to be quite flexible in terms of fund and deal constraints if an opportunity shows good promise in terms of the management team and the market opportunity. When asked to make tradeoffs, "stage of investment required" ranked 23; and industry per se was not even listed among our 35 factors! This leads to two pieces of advice:

To the venture capitalists: *Be aware that competition for deals can cut across segments. Do not trust your nominally non-competitive colleagues around a good team and idea.*

To the investors in venture capital funds: *Understand that those you invest in are only somewhat focused on the segments they have promised.*

There is a further argument which has exercised the venture capital community and that is whether those in Europe are relatively more "financially oriented" than their American

colleagues. The research cited earlier had suggested that, whilst there is variety in the nature of opportunity perception and of investment decision-making, the American venture capitalists clearly focus first upon "people issues". This is consistent with our results leading us to conclude that venture capitalists in both communities share a common model of what constitutes a good opportunity.

Entrepreneurial Community: The research has several implications for entrepreneurs. First, the study provides a comprehensive list of the factors venture capitalists feel are important in screening and evaluating opportunities. Thus, the list is very relevant for entrepreneurs to use as part of **their** initial review of an opportunity. Beyond this, they should focus upon the fundamentals of **capturing an opportunity** - build a good management team with strong leadership and appropriate competencies around a clear and reasonable market opportunity. Worry less about "packaging" the financial aspects.

Second, entrepreneurs should "shop around" for an investor who most appropriately fits the strengths of their business opportunity, since the existence of the three clusters suggests some variation in decision model. There are a number of publications available both from national sources and from the European Venture Capital Association which provide detailed information on the nature and structure of firms in the industry.

Third, entrepreneurs should not confine themselves to national boundaries when seeking risk capital. Though venture capitalists have traditionally invested in their home country, and some continue this strategy, the majority are clearly open to opportunities across European borders. Despite national differences in education, financial practices, or legal standards, there is no strong evidence of a particular national bias in the decision model.

Research Community: Our experience reinforces the earlier comments of Riquelme and Rickards (1992) concerning the nature of the analytical models we have chosen for this research. Conjoint analysis appears to be a strong tool for decision modelling research and, we would add, may be very appropriate for investigating the decision models of not only risk capital investors but also, entrepreneurs. The method has the benefit of providing us with a more rigorous understanding of the decision models of European venture capitalists and, we believe, has given us data which was reasonably easy to analyse.

The only exception we take to their comments is that multi-level attribute pairwise tradeoff methods do work, even though they may be somewhat tedious. Our experience suggests that, once engaged, the respondent finds the methodology both interesting and intriguing. To arrive at this point requires good access and a clear briefing as to its relevance and

requirements.

A second implication of the research for the research community comes from our high response rate, access and comments from the respondents. Though research in this field is still embryonic, we believe that it is important to relate the rapidly increasing sense of frustration on the part of the venture capital community to an overwhelming number of questionnaires which, from their perspective, appear to be:

- * less than comprehensive
- * using "inappropriate" [not practitioner-based] concepts and/or language
- * repeating the collection of information which they believe to be in the

literature

These perceptions, which were related to us repeatedly, would appear to have two major implications. First, we must be more careful to build upon existing knowledge in preparing our research questions and instruments. As part of this, we should take care to explain the incremental benefit of the research we are undertaking and the methods we are using. Second, we need to take time to ensure that our variables and concepts have been appropriately vetted with our population, that we do, indeed, conduct and act upon a pilot study. This is self-evident good research practice which our small population of venture capitalists seem to be saying does not always appear to happen. This is a relatively small community, which actively networks. It would be a shame to alienate them completely.

Table 1: Investment Decision Factors, Listed By Category

Financial Factors:

1. Time To Breakeven
2. Time To Payback
3. Expected Rate Of Return
4. Ability To Cash Out

Product-Market Factors:

5. Degree Market Already Established
6. Market Size
7. Seasonality Of Product-Market
8. Sensitivity To Economic Cycles
9. Market Growth And Attractiveness
10. Uniqueness Of Product And Technology
11. National Location Of Business
12. Degree Of Product-Market Understanding

Strategic-Competitive Factors:

13. Ease Of Market Entry
14. Ability To Create Post-Entry Barriers
15. Sustained Share Competitive Position
16. Nature And Degree Of Competition
17. Strength Of Suppliers And Distributors

Fund Factors:

18. Business Meets Fund Constraints
19. Business And Product Fit With Fund Portfolio
20. Ability Of Investors To Influence The Deal
21. Location Of Business Relative To The Fund

Management Team Factors:

22. Leadership Potential Of Management Team
23. Leadership Potential Of Lead Entrepreneur
24. Recognized Industry Expertise In Management Team
25. Track Record Of Lead Entrepreneur
26. Track Record Of Management Team

Management Competence Factors:

27. Marketing/Sales Capabilities Of Team
28. Process/Production Capabilities Of Team
29. Organizational/Administrative Capabilities Of Team
30. Financial/Accounting Capabilities Of Team

Deal Factors:

31. Stage Of Investment Required
32. Number And Nature Of Co-Investors In Deal

33. Ability To Syndicate Deal
34. Scale And Chance Of Later Rounds Of Financing
35. Importance Of Unclear Assumptions

Table 2: Sample Tradeoff Matrix Page

TRADEOFF MATRIX#: 1

ROW "A": IMPORTANCE OF UNCLEAR ASSUMPTIONS [10]

The degree to which the forecast business and/or product/market revenue is based on assumptions that are difficult to evaluate or calibrate.

ROW "B": UNIQUENESS OF PRODUCT & TECHNOLOGY [19]

The degree to which the product and/or service and the underlying technology embodied or used in delivery is unique and can be protected.

A	B		
	High	Medium	Low
Low			
Medium			
High			

TRADEOFF MATRIX#: 2

ROW "A": ABILITY OF INVESTORS TO INFLUENCE NATURE OF THE BUSINESS [25]

The ability of investors to influence the strategy, structure, and/or conduct of the business

ROW "B": NUMBER AND NATURE OF CO-INVESTORS IN THE DEAL [27]

The number and nature of deals [i.e. complex -> simple] other investors have with business

A	B		
	Many/complex	Few	None/simple
Strong			
Moderate			
Weak			

Table 3: Geographic Distribution of Sample

REGION	NUMBER OF RESPONDENTS
United Kingdom/Ireland	23
Germany/Austria/Switzerland	15
Italy	9
Nordic Countries	7
France	7
Belgium/Netherlands	7
Spain/Portugal	5
Total	73

Table 4: Relative Factor Count Versus Rank

	Top Quintile	Second 20%	Third 20%	Fourth 20%	Bottom Quintile
Management Team	5				
Management Competencies	1	2	1		
Strategic-Competitive	1	1		3	
Financial		3	1		
Product-Market		1	3	1	3
Fund			2	1	1
Deal				2	3

Table 5: Cluster Mean Scores

	Rank	Cluster			Mean	SD	SL
		1	2	3			
Financial Factors:							
Time to break even	12	<u>23.2</u>	<u>7.6*</u>	13.6	15.6	9.7	0.000
Time to payback	20	20.1	18.0	18.1	18.8	9.0	0.494
Expected rate of return	11	13.5	22.2	14.6	14.7	9.0	0.212
Ability to cash out	9	12.0	18.6	12.2	12.5	8.1	0.291
Product-Market Factors:							
Degree market already established	19	21.2	15.6	13.9	18.6	8.9	0.320
Market size	29	23.4	17.9	24.1	23.6	7.9	0.258
Seasonality of product-market	33	27.3	<u>15.5*</u>	26.1	25.8	8.2	0.027
Sensitivity to economic cycles	30	26.4	27.9	23.1	24.2	8.9	0.300
Market growth and attractiveness	18	21.8	15.5	17.5	18.5	9.3	0.192
Uniqueness of product and technology	17	19.3	15.1	17.9	18.4	7.7	0.617
National location of business	27	<u>14.2*</u>	<u>10.6*</u>	26.0	22.3	10.2	0.000
Degree of product-market understanding	10	13.0	<u>22.7</u>	14.0	14.2	7.8	0.071
Strategic-Competitive Factors							
Ease of market entry	24	19.5	29.4	21.3	21.3	9.5	0.171
Ability to create post-entry barriers	14	18.3	12.2	16.0	16.3	9.0	0.418
Sustained share competitive position	6	<u>15.5</u>	14.9	9.8	11.4	8.6	0.037
Nature and degree of competition	26	<u>15.1*</u>	25.4	24.0	21.9	7.9	0.000
Strength of suppliers and distributors	25	18.7	<u>17.0*</u>	23.1	21.7	8.3	0.079
Fund Factors:							
Business meets fund constraints	15	16.1	16.0	17.1	16.8	10.3	0.924
Business and product fit with fund portfolio	28	21.5	<u>14.6*</u>	24.7	23.4	9.3	0.065
Ability of investors to influence the deal	21	22.8	<u>23.7</u>	17.4	19.1	8.8	0.047
Location of business relative to the fund	35	22.7	<u>11.2*</u>	28.9	26.3	8.2	0.000

Management Team Factors:							
Leadership potential of management team	2	9.0	<u>20.9</u>	7.9	8.9	7.4	0.003
Leadership potential of lead entrepreneur	1	7.3	<u>18.2</u>	7.9	8.3	7.0	0.012
Recognised industry expertise in team	3	<u>16.2</u>	10.9	8.6	10.6	6.9	0.000
Track record of lead entrepreneur	4	14.5	13.2	9.4	10.9	8.7	0.085
Track record of management team	5	13.2	<u>27.2</u>	9.2	11.2	8.5	0.000
Management Competence Factors							
Marketing/sales capabilities of team	7	11.4	<u>18.9</u>	11.0	11.5	6.5	0.065
Process/production capabilities of team	16	14.5	<u>23.0</u>	18.1	17.5	9.4	0.189
Organisational/administrative capabilities of team	8	<u>16.8</u>	12.5	10.9	12.4	8.0	0.025
Financial/accounting capabilities of team	13	18.6	13.6	15.1	15.9	8.7	0.304
Deal Factors:							
Stage of investment required	23	<u>15.7*</u>	20.0	22.9	21.0	10.4	0.039
Number and nature of co-investors in deal	32	24.1	<u>15.7*</u>	26.4	25.3	8.3	0.036
Ability to syndicate deal	31	21.2	<u>16.7*</u>	26.1	24.4	8.1	0.010
Scale and chance of later funding rounds	34	29.8	<u>17.5*</u>	25.3	26.0	8.6	0.018
Importance of unclear assumptions	22	<u>10.9*</u>	<u>30.1</u>	23.2	20.6	10.3	0.000

1. Underlining indicates more than half a standard deviation away from the mean
2. An asterisk indicates below the mean

Table 6: Agreement by ranking position

	Top quintile	Second 20%	Third 20%	Fourth 20%	Bottom quintile
Agreement	0	4	6	1	2
Disagreement	7	3	1	6	5

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