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# A comparison of business angel and venture capitalist investment procedures: an agency theory-based analysis[1]

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This paper provides a detailed comparison of the investment criteria and procedures of business angels (BAs) and venture capitalists (VCs) across the full investment process. To make the study more robust, a theoretical base is adopted (based on agency theory) to form research hypotheses which propose that BAs and VCs in the UK may use different approaches to limit potential agency risks in their investments (i.e. the risks associated with an entrepreneur's potential misuse of the investor's money). Utilizing data from 40 personal interviews and 262 questionnaire responses, this study empirically supports the main hypothesized notion that, although both investors reduce agency risks at all stages of the investment process, BAs place more emphasis on doing so *ex post* investment (the incomplete contracts approach), while VCs stress doing so more *ex ante* investment (the principal-agent approach).

*Keywords:* agency theory, incomplete contracts approach, investment process, due diligence, monitoring

## Introduction

As job growth and economic prosperity in the UK and the US continue to become less dependent upon large firms (Storey 1994), the economic importance of small firms is receiving increased attention from policy makers, academics, and the media. Since 1979, greater attention has been paid to small firms on account of their potential for generating jobs and economic growth, and the UK has gained one million more small businesses since then (Storey 1994). As a result, it is now accepted government policy that the small firm sector will provide the main vehicle for recovery from recessions and will be the main provider of jobs for the next decade at least (Deakins 1996). Similarly in the US, while Fortune 500 companies lost over four million jobs between 1979 and 1995, over 24 million jobs were created by the entrepreneurial economy as the number of new businesses skyrocketed by almost 200% (Freear *et al.* 1997).

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Although small firms vary greatly in size and function, it is the high-growth minority of 'entrepreneurial firms' which account for most of this economic potential. Entrepreneurial firms are those with a vision for growth, while also being innovative, risk-taking and able to change (Wetzel and Freear 1996). They typically wish to grow into a substantial firm with 50 or more employees within 5–10 years, and are the primary recipients of external equity finance (Wetzel and Freear 1996). In the UK, Deakins (1996) discovered that these high growth small firms are rare, comprising probably only 3–4% of all start-ups, while Storey (1994) found that it is these 4% of all start-ups which will provide 50% of employment out of all surviving firms in ten years' time. Similarly in the US, these entrepreneurial firms represent about 4–8% of the one million start-ups per year and have accounted for 70–75% of net new jobs (Wetzel and Freear 1996). Although these early stage firms are most reliant upon outside financing to foster their growth, once the entrepreneurs' personal savings and investments by family and friends have dried up, they often have difficulty in finding this financial support from institutional investors because of their inherently uncertain and high-risk nature.

Fortunately, there are two types of finance providers, business angels (BAs) and venture capitalists (VCs), which do fund some of these high-growth firms in the hope of generating high returns which will more than compensate them for the funding risks. Business angels tend to be private individuals, who often have started their own successful firms in the past and are now looking to invest some of their money and experience gained into a small entrepreneurial firm. In today's small firm financing arena, BAs are the only investors who invest primarily in those entrepreneurial firms needing less than US$500,000 (below £400,000 in the UK), the troublesome range of funding cited as the equity gap—the range in which most institutional investors will not fund. However, the funding importance of BAs has become even greater in recent years as VCs, professional investors of institutional money, in the US and the UK have started to shift their investment focus away from start-ups and early-stage firms, in favour of safer and more mature ventures (i.e. development finance) (Sapienza *et al.* 1996).

It is now well accepted that the BA market in the UK and the US is the largest single source of risk financing for entrepreneurial firms, exceeding the institutional VC industry (Mason and Harrison 1996). In fact, estimates in the UK and the US suggest that BAs fund an annual amount of two to five times more money to entrepreneurial firms than the VC industry (Wetzel 1987, Freear *et al.* 1997, Mason and Harrison 1993). Since BA investments are, on average, of a much smaller size, it is also 'guesstimated' that BAs fund is between 30–40 times the number of entrepreneurial firms financed by the formal VC industry (Wetzel and Freear 1996). Despite its significant size, the potential of the BA market is significantly greater than current figures suggest (Mason and Harrison 1993). Because of inefficiencies and underdevelopment in the BA market, many firms with growth potential remain constrained by their inability to locate financial support, even though BAs, especially, still have additional financial capital allocated for such investments (Harrison and Mason 1992).

Since many facets of the investment process of BAs and VCs remain unknown, it is hoped that a greater understanding of how and why they choose their particular investments may assist in lessening this funding problem and unleashing some of the BA market's untapped potential (Harrison and Mason 1992). This paper, therefore, conducts a detailed comparison, across the full investment process, of the investment procedures and criteria of these two types of external financiers which are most vital to the survival and growth of early-stage entrepreneurial firms.

## Theoretical framework

The study of small firms in general can be characterized by a lack of theoretical framework, as is evidenced by the many empirically-based studies and the few that utilize theory (Deakins 1996, Bygrave 1989). But the ability to employ theory which can accurately predict may very well increase the robustness of research and render more enlightening results and more insight than *ad hoc* research studies. To formulate a theoretical base for this research study, agency theory will be 'borrowed' from the field of finance and applied to (formal and informal) venture capital investing.

### *Separation of ownership and control*

In most modern corporations and many small and medium-sized firms (primarily those funded with outside equity) there is a 'separation of ownership and control' which is utilized to run the organization. In such an arrangement, one party (the principal) delegates work and responsibilities to another (the agent), who performs that work on the principal's behalf (Jensen and Meckling 1976). This separation of decision and risk-bearing functions is common in such organizations in part because of the benefits of specialization of management and risk bearing.

### *Asymmetries of information*

In such a situation where an agent is contracted to run a firm and make decisions on behalf (and in the supposed best interests) of a principal, information asymmetries are prevalent between the parties. That is to say, there are certain pieces of information, having a material affect on the firm and the contract, which are available to one party and not to the other. This information asymmetry can be of concern if the agent decides to use his/her information advantage for his/her own advantage, rather than for the benefit of the firm and the principal. Since it is often difficult for a principal to ascertain whether the agent is using his/her information advantage for the principal's benefit, a number of problems can arise in the running of a firm (in which a principal has already invested) and in an entrepreneur's attempt to raise outside equity finance from potential investors (potential principals).

### *The role of contracts*

Since an agency relationship consists of individuals with differing preferences trying to engage in co-operative effort, contracts are employed to limit the agency costs which may arise. These agency costs are as real as other costs and their cost level 'depends among other things on statutory and common law and human ingenuity in devising contracts.' (Jensen and Meckling 1976: 357). These contracts (written or unwritten) specify rights of the agent, performance criteria on which the agents are evaluated, and the payoff functions they face (Fama and Jensen 1983). Because principal-agent theory attempts to determine the most efficient contract governing the principal-agent relationship, contracts are the unit of analysis, and any organization is therefore a nexus of contracts (Jensen and Meckling 1976, Hart 1995a).

### *The causes of agency problems*

Unfortunately, contracts cannot be written at no cost and enforced, and this leads to agency problems in the firm. Because of the costs of structuring, bonding and monitoring contracts among agents and principals with conflicting interests, the cost of their full formulation and enforcement may exceed their benefits (Fama and Jensen 1983). Although, the firm's non human assets can be secured relatively easily through simple contracts, this is more difficult for the firm's human assets. This means that the problems associated with asymmetries of information can not be fully contracted away, which leads to the two primary causes of agency problems: (1) conflicts in alignment and verification of goals, and (2) conflicts in risk sharing.

### *Two particular agency problems*

These two conflicts lead to two particular agency problems: moral hazard and adverse selection. Moral hazard occurs when the agent does not put forth the effort originally agreed upon in the contract (Fama and Jensen 1983). Furthermore, since the agent only benefits from returns when the firm is making profit, rather than in a bankrupt state, the agent may decide to take on risky investments of given mean return instead of safer investments (Jensen and Meckling 1976). The agent may also have personal incentives to withhold or modify crucial information. Conversely, adverse selection refers to the misrepresentation by the agent as to his/her abilities. The agent may falsely claim to have certain skills when he or she is hired. Adverse selection arises because the principal can not completely observe and verify these skills or abilities when the agent is hired or whilst in his/her employment.

### *Two approaches to deal with agency problems*

The literature identifies two primary approaches (to investor–firm relations) which can shed light on how to decrease agency problems in

a firm. The first, the principal agent approach, is essentially the 'classical' agency theory and is primarily concerned with determining the optimal contract, between principal and agent (Jensen and Meckling 1976). To formulate such an optimal contract, the approach advocates pre-investment screening and due diligence of the firm so that asymmetries of information decrease and a better contract can be negotiated. However, the second approach, the incomplete contracts approach, states that contracts are always incomplete, therefore it is really the *ex post* allocation of control which is more important, rather than *ex ante* screening and contract writing (Hart 1995a, b). Although both theoretical approaches advocate risk reduction at each stage of the investment process, each places greater emphasis on different stages of this process.

### *The principal-agent approach*

When dealing with the potential effects of moral hazard and/or adverse selection, the principal can limit divergences from his/her own interests by incurring screening costs to reduce the asymmetries of information between the principal and agent. More comprehensive contracts can then be formulated to influence the agent's behaviour. These contracts can either be behaviour- or outcome-based. In the former, the appropriate behaviours of the agent are stipulated to limit any devious behaviour by the agent and the principal will incur monitoring costs (behaviour-based observation) to ensure the agent behaves as was agreed upon. Such contracts are feasible if the principal can observe and verify the agent's behaviour. However, in the latter, the principal may not be able to observe the agent (making the behaviour-based contract not feasible) and so the principal will establish appropriate contractual incentives for the agent, reliant upon the agent's performance (outcome-based contracting) (Jensen and Meckling 1976). These are the two main ways the principal agent approach aims to limit (contractually) an agent's ability to pursue his/her own agenda and so provide important checks and balances on the agent's behaviour. Both these options for controlling agency costs have their advantages and disadvantages, although both involve information gathering and contract formulation. This trade-off (possibly on a continuum) between the costs of measuring behaviour and the costs of measuring outcomes and transferring risk to the agent is the heart of principal agent theory. Thus, there are a number of unavoidable agency costs in the principal agent approach (see figure 1).

### *The incomplete contracts approach*

In the incomplete contracts approach it is assumed that writing a (good) contract is itself costly. Thus, the contract will always be incomplete and therefore the *ex post* allocation of power is what really matters. This is

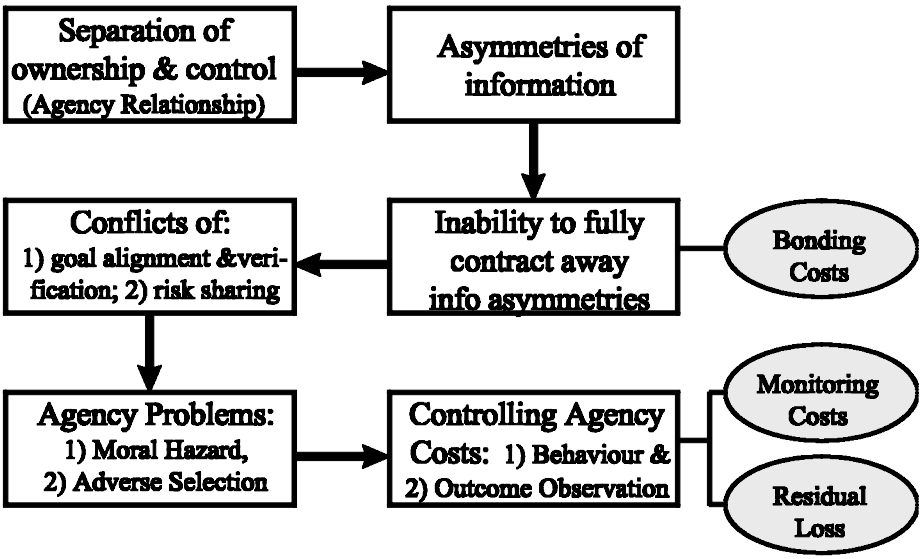


Figure 1. Implications of the agency relationship

different from the principal agent approach which assigns all contracting costs to the cost of observing variables, and assumes that if all these variables are observable by both parties, then they can be contracted on costlessly. However, in reality contracting costs can be sizeable (Hart 1995a). There are three main explanations for why writing contracts is costly, making them incomplete: the presence of transaction costs, bounded rationality, and asymmetric information.

In the transaction cost approach it is argued that the costs of contracting on an unlikely event may well outweigh the benefits, on account of four *ex ante* costs which are particularly important (Spier 1992). First, the cost of thinking about (and planning how to deal with) all the different eventualities that may arise during the contractual relationship. Second, the cost of negotiating with others about these plans. Third, it may be very difficult and costly to write a contract which, when it is violated and in dispute, is clearly verifiable by a third party—such as a judge (Hart 1995b). Fourth, there are *ex post* legal costs incurred, in addition to the *ex ante* writing costs, in actually having this contract verified and enforced by a third party (Spier 1992, Sappington 1991). In fact, because exotic contracts are hard to evaluate and enforce, contracts in reality tend to be simpler and less sensitive to environmental differences.

A second explanation for incomplete contracts, bounded rationality, argues that agents either have only limited ability to evaluate elaborate contingencies or are not able to foresee unlikely contingencies (Spier 1992, Hart 1995a).

A third explanation for incomplete contracts is asymmetric information. This approach argues that a person may refrain from including a certain clause in a contract so as to signal his/her type (Spier 1992). One such example is an athlete negotiating a contract with a particular team.

> The athlete's agent may advise him to refrain from asking for an injury clause, because the team manager would infer from such a request that the athlete is more accident prone and would make the terms of the contract worse (Spier 1992: 433).

As a consequence of these three explanations, the incompleteness of the contracts will lead to renegotiation when new information arises. Although these aforementioned reasons place much emphasis on contract formulation, and their subsequent incompleteness, it pays less attention to the idea that power is important and the implementation of organizational arrangements to allocate that power.

### *The importance of the ex-post allocation of control*

If it was costless to write a contract, then an optimal contract might be written which was fully comprehensive of all future scenarios. In such a situation, power would be irrelevant because the contract would not be breached or renegotiated. Here power refers approximately to the position of each party if the other party does not perform as agreed, such as when one of the parties behaves opportunistically (Hart 1995a). However, Hart (1995a, b) contends that because contracts are not complete and can not specify each party's obligations in every contingency, it is the *ex post* allocation of power and control that matters . Since contracts can not be written on returns, they can only be written on assets (Hart, 1995a). Thus, in his property rights approach, Hart states that one source of this control may be possession of a firm's residual control rights (i.e. assets) (Hart 1995a). In an equity investment, for example, the protection (and source of power) that the equity holders have is their vote to remove and replace those running the firm. This is what gives them a degree of control over the firm's assets.

However, because Hart (1995a) uses large established firms with multiple shareholders and assets as the basis for his analysis, he is able to advocate the possession of a firm's assets as a means to acquiring *ex post* control. But in the small firm environment (especially with small start-up entrepreneurial firms), the possession of a firm's assets may be meaningless because these firms are often highly leveraged and have no real assets. Thus, it is proposed that in the high-risk small-firm environment, the best way to gain *ex post* control and exert power over the investment may, instead, be through active involvement in the investment.

Although both approaches aim to limit agency costs at each stage of the investment, the principal agent approach does so slightly more *ex ante*, while the incomplete contracts approach does so slightly more *ex post* (see figure 2).

Clearly, the principal agent approach places more emphasis on the formulation of an optimal contract, behaviour versus outcome, between the principal and the agent. To form such an optimal contract, which considers foreseeable future contingencies, the use of pre-contract screening and due diligence is especially advocated to reduce asymmetries of information between the principal and agent. With this approach, the contract is the unit of analysis (Jensen and Meckling 1976). The second, the incomplete contracts

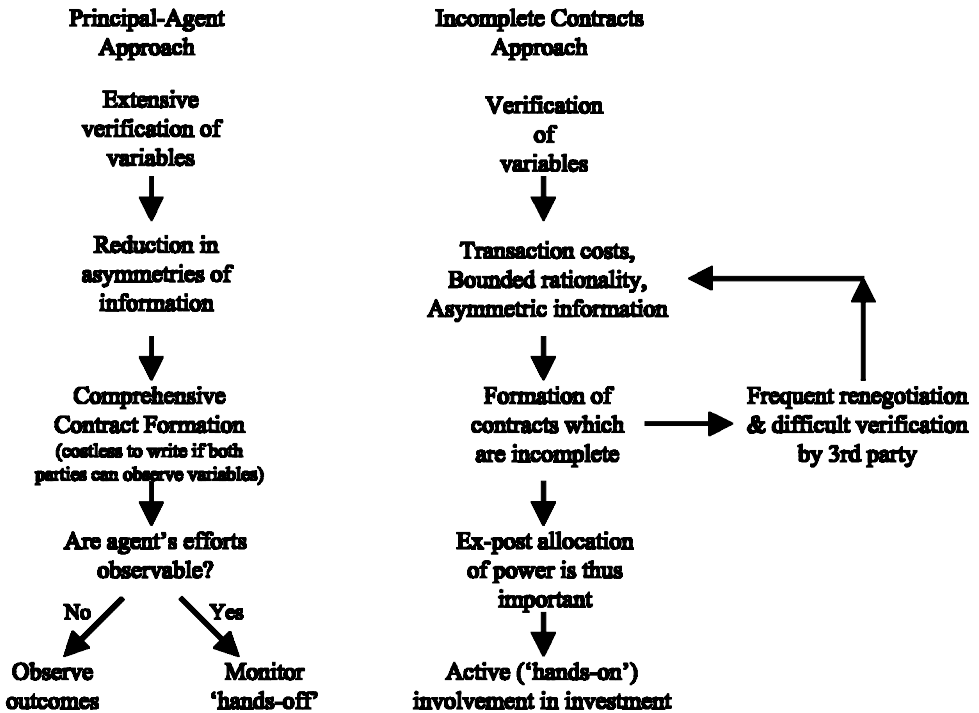


Figure 2. An over-simplified summary of the areas particularly emphasized by the two approaches of dealing with agency problems in the small firm investment context

approach, is based on Hart's (1995a, b) work and concludes that contracts are always incomplete and it is, therefore, the *ex post* allocation of control that matters when investing in a firm. The best way to attain this in the small firm environment may be through active involvement in the investment.

## Application of the two theoretical approaches of dealing with agency problems to the small firm funding environment of BAs and VCs

Faced with these two choices of dealing with agency problems, the question arises: 'Why might two investors in the same environment prefer to employ different approaches to control agency problems?' This question is addressed in the rest of this paper by analyzing a 'real life' example of two different investors who perform similar functions in the same environment, although each utilizes a different one of these approaches to control agency risks. This research hypothesizes that one such an example may be the analysis of BAs and VCs, both of whom are small firm finance providers in a high risk environment where agency problems can be a serious concern. This research study, therefore, undertakes an overview of the structural and agency pressure differences between BAs and VCs to add insight into why BAs and VCs may employ different approaches to

limiting agency risks. In particular it is suggested that BAs may tend to follow the contracts incompleteness approach when investing in high-risk small firms, while VCs may tend to follow the principal-agent approach.

*Limited control of outcomes and superiority of behaviour-based observation*

Small start-up firms operate in a uncertain environment in which the outcomes are uncertain and may only be partly affected by an agent's effort. In such situations where the agency costs can be sizeable and the observation of behaviour (rather than outcomes) is the best monitoring approach, it is also in the best interest of the agent to decrease the asymmetries of information (and concern of agency risk) for the principal. Doing so would procure a less restrictive environment in which the agent can operate and will also keep the principal in the firm. Thus, an agent may establish (and agree upon with the principal) some up-front rules of procedure and behaviour to 'signal' competence so as to ease the principal's conscience and decrease the level of monitoring that the agent would otherwise have to endure.

*Differences between BAs and VCs which influence their choice of approach to deal with agency problems*

Since the ventures that BAs and VCs finance are usually only backed by intangible assets and trust in the ethics and abilities of the entrepreneurial team, the agency costs which could arise may be significant. Indeed, there are structural and agency pressure differences between BAs and VCs which highlight why these two investor types may wish to use different approaches to control these agency problems.

*Structural differences between the investor types*

Because of the agency concerns of their fund providers (i.e. the VCs' principals), VCs must demonstrate competent behaviour to them from the very start of their investment process. This involves competent screening, due diligence and contract formulation before investment is placed in risky portfolio firms (i.e. the principal agent approach is followed). Conversely, since BAs invest their own money, they are not under such pressure to behave professionally and may wish to control agency problems more *ex post* through active involvement (i.e. the incomplete contracts approach). Clearly, this highlights the diversity of their respective investor bases and clarifies the additional level of the agency relationship for VCs to deal with that BAs do not: that of the fund providers. Indeed, in the financing context, VCs take on an intermediary role between the fund providers and the entrepreneurial firms. This raises the question: why should fund providers use an intermediary to invest in entrepreneurial ventures, rather

than invest directly? To address this, the intermediary must convince potential buyers that its information is of a high quality and, therefore, that investment in the intermediary is justified. This is done by signalling *ex ante* to the buyers (fund providers) that the intermediary's information, and the investments made based upon that information, are of a high quality. Since investment outcomes are often still years away and venture capital funds are raised in a very competitive market (Sapienza *et al.* 1996), responsible behaviour on the VCs' part may be the best way to signal to their fund providers that they are a high-quality organization.

### *Agency pressure differences between investor types*

Since it takes time to realise performance results, VCs employ a number of ways to signal to (potential and current) fund providers that they behave in a responsible manner. Some of these ways are: maintaining a good reputation for the VC firm, presenting impressive qualifications of the VCs, presenting up-front rules which to the fund providers that responsible conduct is standard operating procedure, and demonstrating that the most responsible procedures are utilized in choosing investments for the VC fund (i.e. the more 'competent' principal agent approach of emphasizing *ex ante* risk reduction may be used, rather than the incomplete contracts method which emphasizes *ex post* reduction) (see figure 3).

In addition, the increased competition for fund providers' money in the VC marketplace has made it even more important for VCs to behave efficiently to signal their competence and reliability (Sapienza *et al.* 1996).

Because of their structural and agency pressure differences, it is proposed that BAs and VCs will probably utilize different approaches to deal with potential agency problems in their investee firms. Since VCs have pressure to behave competently for their fund providers, it is proposed that they spend more effort controlling agency pressures *ex ante* investment (i.e. through screening, due diligence, and the use of comprehensive contracts), as is advocated by the principal-agent approach. Conversely, since BAs are not under such pressures and in general are not professional investors with research and contracting skills, and often prefer active involvement, we might assume that they elect to control agency problems more so *ex post*, as would be advocated by the incomplete contracts approach. To test whether BAs and VCs do indeed employ these different approaches to limit agency concerns throughout the investment routine, we would expect to see the following throughout the stages of the investment process:

*Hypothesis 1.* VCs generate and maintain a greater deal flow than BAs.
*Hypothesis 2.* VCs are more selective in their initial screening of investment opportunities than BAs.
*Hypothesis 3.* VCs conduct more pre-investment due diligence than BAs.
*Hypothesis 4.* BAs place more emphasis on investment criteria related to *ex post* involvement and vcs place more emphasis on investment criteria related to initial screening.

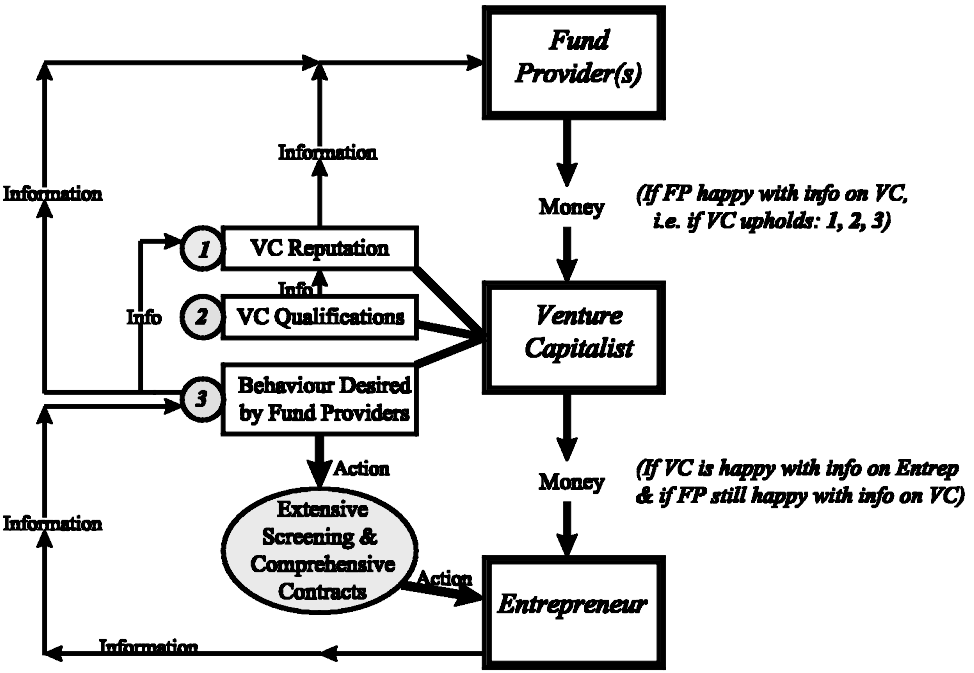


Figure 3. Information signals and agency pressures in a venture capitalist's early investment process

*Hypothesis 5*. VCs have more contractual control over their investments than BAs.
*Hypothesis 6*. BAs monitor more actively post-investment than VCs.
*Hypothesis 7*. VCs are more concerned about exiting their investments than BAs.
*Hypothesis 8*. VCs prefer the principal-agent approach, and BAs prefer the incomplete contracts approach, to agency risk control.

## Data and methodology

The empirical component of this study is based on an extensive review of the literature, 40 personal interviews, and 143 BA and 119 VC questionnaire responses. Firstly, the academic literature was used to aid the hypotheses formulation and interview preparation, before the 40 personal interviews were then conducted (lasting about 60–90 minutes each) with BA and VC investors around the UK, incurring over 3,000 miles of travel. Then, using the interview findings as a guide, a short postal questionnaire was constructed and pilot tested extensively with investors known to the author.

Since BAs usually have a preference for anonymity and are difficult to locate for research purposes, ten business introduction services around the UK were utilized for the questionnaire distribution. These services specialize in matching business angels looking for investment opportunities

with entrepreneurs seeking start-up and early-stage financiers. Since this study was only interested in having respondents focus on actual investments recently made and then answering questions specific to that particular deal, the business introduction services agreed to forward the questionnaire to only those investors who had made an investment within the last three years. Because of the inherent research constraints in the BA field, care was taken to deliberately draw upon a sample from a variety of different sources (Mason and Harrison 1996).

To obtain a representative VC sample, the comprehensive listing of UK VCs in *The Venture Capital Report Guide to Venture Capital in the UK and Europe* was utilized. Out of the 106 VC entries listed, only those 64 firms who stated that they had done at least a few start-up/early stage deals were contacted by postal questionnaire. However, if one includes separately the 17 regional offices of 3i (the largest VC firm in the UK) then a total of 81 different VC firms were reached, with an average of 2.5 VCs contacted per firm. Since all those identifiable VC firms in the UK which claimed to have made some start-up/early stage investments were contacted in this study, it is hoped that the sample used is relatively representative of those UK VCs who sometimes invest at the early end of the investment spectrum.

This study was fortunate to receive response rates of 51.6% for the BAs (n=143) and 58.8% for the VCs (n=119). This makes this study possibly the second largest study conducted on BAs and one of the largest academic studies of VCs in the UK. Indeed, based upon Mason and Sackett's (1996) findings, this study's BA sample may be 'guesstimated' to represent 18% (£7.8 million/£43.3 million) of the total amount funded by BAs through business introduction services in the UK over the last two years, while the VC sample may represent almost 70% (£112.5 million/£161 million) of the total investment VCs have made in early-stage firms over the same period.

To analyze the empirical data, both parametric and non-parametric regressions were conducted, as were multiple logistic regressions to further verify the findings. In addition, it must be clarified that to improve upon some deficiencies of past studies, this study made a point of employing a number of approaches, including: a focus on the full investment process, a theory driven approach, a investment process-based analysis, an investment deal-specific analysis, focus on actual investments made (not just preferences), and a triangulation of research methods. However, because of the natural constraints of academic research, a number of limitations to the methodology and method may also exist, including: possible post-hoc rationalization by the respondents, the self reporting of data, the one-sided view (investors only) of the process collected, and possible limited representativeness inherent of BA samples. Triangulation of the research approaches was followed to lessen the effects of these limitations.

## Results

To test the theoretical hypotheses with the empirical data, a detailed comparison of the BA and VC procedural investment differences is undertaken at each stage of the investment process.

*Deal flow and initial screening*

Analyzing the early stages of the investment process, it was found that BAs and VCs deal with potential agency risk differently. VCs appear to be much more efficient than BAs in the deal origination and initial screening processes. Compared to their informal counterparts, formal VC investors have more structured networks of referrers to render them a greater deal flow that is also of a higher quality. Thus, VCs have more and better proposals to choose from compared to BAs, and, therefore, have a higher attrition rate (after the full due diligence process is completed). To further increase their effectiveness in the initial screening process, VCs also tend to specialize more in certain industry sectors than BAs, which benefits their selection procedures. Since VCs are much more professional and efficient in the deal origination and initial screening processes than BAs, as agency theory predicts, we may conclude that the following are *true:*

*Hypothesis 1*. VCs generate and maintain a greater deal flow than BAs.
*Hypothesis 2*. VCs are more selective in their initial screening of investment opportunities than Bas.

*Due diligence*

The empirical results indicate that for each one of the dozen variables used to measure the due diligence processes of BAs and VCs, VCs conduct significantly more due diligence than BAs. Particularly, compared to BAs, VCs: have more sector experience, invest in larger firms, conduct more sector research, meet the entrepreneur more often before investing, take more independent references on the entrepreneur, analyze the financials more thoroughly, demand a more comprehensive business plan from the entrepreneur, incur more research costs (as a percentage of invested amount), document their investment process more, consult more people before investment, and take longer to invest (see table 1).

Of particular interest, 59% of BAs and 29% of VCs claim to have minimal or no experience in their last investment's industry sector and 50% of BAs conducted minimal or no research in that sector. Furthermore, 54% of BAs and 6% of VCs collected no independent references on the entrepreneurs they funded.

Since the due diligence evidence is clearly in line with what was hypothesized by comparing the two theoretical approaches for dealing with potential agency problems, we may conclude that the following is probably *true*:

*Hypothesis 3*. VCs conduct more pre-investment due diligence than BAs.

Although the literature has assumed that the entire professional careers of BAs have prepared them to conduct due diligence, it is apparent that BAs in the UK tend to be less sophisticated and more *ad hoc* in their due diligence activities than VCs and possibly BAs in other countries. Since, unlike VCs, BAs are not accountable to others for their investment

Table 1 Significant due diligence differences

| | BAs Mean | VCs Mean | BAs S/D* | VCs S/D* | *P* value[b] |
|---|---|---|---|---|---|
| Size of firms funded (corporate value) | £288,819 | £3.2m | 2.346k | 5.505k | <0.001 |
| Sector experience of the investor[a] | 2.83 | 2.2 | 1.05 | 0.93 | <0.001 |
| Sector research conducted by investor[a] | 2.5 | 1.6 | 0.97 | 0.72 | <0.001 |
| Times met the entrepreneur before investing | 5.4 | 9.5 | 5.61 | 7.88 | <0.001 |
| Number of independent references taken on the entrepreneur | 0.96 | 4.2 | 1.80 | 3.49 | <0.001 |
| Calculation of expected rates of return before investing (% yes) | 31.6% | 90.4% | 0.46 | 0.29 | <0.001 |
| Documentation of the investment process | — | — | — | — | More for VC (based on qualitative data) |
| Comprehensiveness of business plan demanded | — | — | — | — | More for VC (based on qualitative data) |
| Cost of due diligence as a % of amount invested (average) | 0.67% | 1.3% | 2.58 | 1.7 | 0.057 |
| Number of people investor consulted before investment decision | 3.0 | 4.4 | 2.68 | 2.44 | <0.001 |
| Time from first meeting entrepreneur to investment decision (in weeks) | 8.8 | 12.3 | 12.8 | 12.9 | 0.033 |
| Total investment process time (weeks) | 14.8 | 19.9 | 15.97 | 13.64 | 0.013 |

[a]These variables were rated on a 4 point likert scale (1=extensive, 4=none)
[b]Significance is based on two tailed *t*-tests
*S/D=Standard Deviation

decisions, they can invest on a gut feeling rather than based on comprehensive research.

### *Ex-post involvement and initial screening criteria*

Although few statistical differences exist for the most important investment criteria, the entrepreneurs and market/product, the interviews showed that BAs may be more influenced by the former, while VCs more so by the latter. Yet, the investment criteria ranked lower in influence overall in importance showed more statistical differences between the investor types. Indeed, some support was rendered to the notion that BAs were more attracted to financial and non-financial variables relevant to potential active *ex post* involvement in their investments, while VCs appeared to prefer

those variables which measured potential financial profits *ex ante* investment (see table 2).

Although both BAs and VCs are very motivated to invest by financial returns, the data shows that this is less relevant to BAs, who often also invest to become active in the entrepreneurial process, and also just for fun. However, some mixed support was received for the notion that BAs use more *ex post*, and VCs more *ex ante*, investment criteria. While the financial data rendered some support for the BAs' inclination for *ex post* monitoring, the data show that BAs have a greater preference for co-investing, which may decrease their own active monitoring involvement. Conversely, VCs were significantly more attracted than BAs to criteria which were related to *ex ante* screening of the investment (such as projected financial returns). We may, therefore, conclude that the following is only partially supported:

*Hypothesis 4* BAs place more emphasis on investment criteria related to *ex post* involvement and VCs place more emphasis on investment criteria related to initial screening.

### *Contractual control*

The data support the view that VCs conduct more rigorous and more lengthy negotiations than BAs (based on the qualitative data) and gain more

Table 2. Significant investment criteria differences

| | BAs Mean | VCs Mean | BAs S/D* | VCs S/D* | *P* value |
|---|---|---|---|---|---|
| *Financials used to screen for potential gains* | | | | | |
| Perceived financial rewards (for the investor) | 1.85 | 1.43 | 0.99 | 0.71 | <0.001 |
| Expected rate of return | 2.25 | 1.74 | 1.07 | 0.95 | <0.001 |
| *Financials to monitor the 'operating' business* | | | | | |
| Low overheads | 2.48 | 3.00 | 1.13 | 1.07 | <0.001 |
| Ability to reach break-even without further funding | 2.55 | 2.91 | 1.17 | 0.25 | 0.026 |
| Low initial capital expenditures needed (on assets) | 2.56 | 3.34 | 1.21 | 1.23 | <0.001 |
| Size of the investment | 2.58 | 3.28 | 1.24 | 1.24 | <0.001 |
| Low initial cost to test the market | 2.68 | 3.21 | 1.24 | 1.14 | 0.002 |
| *Other business attributes (vital to hands-on role)* | | | | | |
| Investor's involvement possible (contribute skills) | 2.42 | 2.85 | 1.41 | 1.37 | 0.014 |
| Investor's strengths fill gaps in business | 2.44 | 3.47 | 1.32 | 1.20 | <0.001 |
| Venture is local | 2.79 | 3.65 | 1.46 | 1.44 | <0.001 |
| *Other business attributes (Misc.)* | | | | | |
| Potential exit routes (potential liquidity) | 2.88 | 2.19 | 1.34 | 1.02 | <0.001 |
| Investor understands the business /industry | 2.88 | 2.43 | 1.45 | 1.08 | 0.006 |
| (Potential) co-investors present | 2.93 | 3.37 | 1.51 | 1.53 | 0.030 |

[a]The criteria were measured on a likert scale where 1=very important; 5=not important
*S/D=Standard Deviation

authority though their more thorough contract formulation processes with the entrepreneur (i.e. they form better contracts, spend more on transaction costs proportionately, invest larger amounts, have greater equity stakes, and more often exercise the authority to replace entrepreneurs) (see table 3).

However, despite these findings, the quantitative measure of the length of negotiations and the entrepreneurs' equity stakes do not differ significantly between BAs and VCs, and it is uncertain whether the replacement of entrepreneurs is a robust measure of contractual control. However, even with these limitations, the data indicates that VCs may employ more comprehensive contracts than BAs which render them more contractual control. Thus, it may be concluded that the following is probably *true*:

*Hypothesis 5*. VCs have more contractual control over their investments than BAs.

### *Post-investment monitoring*

While VCs often recruit new employees to fill gaps in their investee firms and to monitor and steer growth, BAs tend to be more personally active (see table 4).

Indeed, BAs are somewhat known for the active hands-on guidance and assistance they give to the firms they fund. Based on these empirical findings, we may conclude that the following is probably true:

*Hypothesis 6*. BAs monitor more actively post-investment than VCs.

Table 3. Significant actual investment and contractual control differences

| | BAs Mean | VCs Mean | BAs S/D* | VCs S/D* | *P* value |
|---|---|---|---|---|---|
| Transaction costs (legal etc) | £888 | £39,875 | 1.9k | 63.6k | <0.001 |
| Transaction costs (% total investment) | 2.7% | 5.4% | 6.1 | 7.2 | 0.004 |
| Length of negotiations | 6.22 | 7.47 | 6.6 | 9.2 | More for VC (based on qualitative data) |
| Rigor of investment contracts | — | — | — | — | More for VC (based on qualitative data) |
| Size of investment | £54,585 | £945,363 | 71.9k | 1,350k | <0.001 |
| Investor's initial equity | 23.6% | 31.7% | 20.2 | 17.7 | 0.001 |
| Number of entrepreneurs investor has replaced (average) | 0.45 | 5.7 | 1.2 | 9.5 | <0.001 |
| Number of entrepreneurs investor has replaced (% of investments made) | 7.1% | 17.1% | 17.0 | 16.4 | <0.001 |

*S/D=Standard Deviation

### *Exiting*

While BA and VC investors have similar investment horizons, the findings show that VCs are much more concerned about exiting their investments in the future and also have higher expected and partially realized rates of return on their venture investments (see table 5).

Based on these empirical findings, we may conclude that the following is true:

*Hypothesis 7.* VCs are more concerned about exiting their investments than BAs.

## Discussion

Based upon extensive empirical comparisons between BA and VC investors at each stage of their respective investment processes, four of the seven hypotheses were strongly supported and the remaining three received slightly less (but still relatively persuasive) support. Thus, it may be concluded (with only limited doubt) that the following is probably *true*:

*Hypothesis 8.* VCs prefer the principal-agent approach, and BAs prefer the incomplete contracts approach, to agency risk control.

This finding may be particularly relevant because it empirically shows that the derivations of financially-based agency theory may be effectively applied to the areas of BA and VC investing to increase our understanding

Table 4. Significant post-investment 'hands on' monitoring differences

| | BAs Mean | VCs Mean | VAs S/D* | VCs S/D* | *P* value |
|---|---|---|---|---|---|
| *Investment criteria* | | | | | |
| Investors desire for involvement | 2.42 | 2.85 | 1.4 | 1.4 | 0.014 |
| Invester can fill in business gaps | 2.44 | 3.47 | 1.3 | 1.2 | <0.001 |
| Venture is local | 2.79 | 3.65 | 1.5 | 1.4 | <0.001 |
| Monitor (1=active, 4=passive) | 2.27 | 2.42 | 1.0 | 0.8 | None (but scaled distribution) |
| Telephone calls (per month) | 7.74 | 5.51 | 8.2 | 6.0 | 0.017 |
| Visits (per month) | 3.15 | 1.58 | 4.8 | 2.3 | 0.001 |

[a]The criteria were measured on a likert scale where 1=very important; 5=not important
*S/D=Standard Deviation

Table 5. Significant exit route and performance differences

| | BAs Mean | VCs Mean | BAs S/D* | VCs S/D* | *P* value |
|---|---|---|---|---|---|
| Potential exit routes present[a] | 2.88 | 2.19 | 2.8 | 2.2 | <0.001 |
| Annual rate of return initially expected on investment | 29.9% | 39.2% | 24.2 | 13.4 | 0.002 |
| Annual rate of return now believe will realistically achieve on investment | 26.8% | 39.4% | 37.2 | 25.9 | 0.008 |

[a]The criteria were measured on a likert scale where 1=very important; 5=not important
*S/D=Standard Deviation

of these two important types of financiers. If carefully applied, it may highlight that theory from the rigorous and stable field of finance can be used in the turbulent field of entrepreneurship research. Thus, for the first time, it is proposed and supported that although both of these investor types aim to reduce agency risks throughout their investment processes, VCs are more rule-based and more concerned with reducing these risks in the pre-investment process as a means of signalling competence to their fund providers. BAs, conversely, tend to place greater emphasis on *ex post* investment involvement as a risk reduction method. Hopefully, this finding is a worthy contribution to our understanding of these investor types, especially since this study was the first to apply a theoretical base, and conduct a direct comparison between BAs and VCs throughout the investment process.

## Conclusion

This study has demonstrated how theory can be utilized to formulate a framework for hypotheses formulation, and the collection, analysis, and presentation of empirical data. In particular, governance issues of VC firms, although rarely examined, were emphasized using a theoretical approach. Although such a theoretical base is unusual in the entrepreneurship field, it hopefully may provide a beneficial guide for future research. In addition, much empirical information was gathered about each investment stage, which may be of interest to entrepreneurs seeking funds, other business angels and venture capitalists, and business introduction services attempting to match informal investors with entrepreneurs soliciting finance. Since this is still an under-researched area of study, any knowledge obtained about these investor types may also benefit policy makers and other practitioners in the entrepreneurial finance field. By offering a greater understanding of BAs and VCs and how they behave quite differently in their investment processes on account of different structural and agency risk differences, it is hoped that this study may offer some greater clarity about these important, yet understudied, supporters of the entrepreneurial ventures that are so vital to our nation's economic growth and wellbeing.

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