Venture Capital Supply and Accounting Information System Development

by

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Abstract
This study examines the origins and characteristics of information systems of entrepreneurial firms going through that stage in their life cycle when serious growth ambitions are fuelled by an infusion of external capital. It does so by investigating the consequences of venture capital intervention for the entrepreneurial firm as regards changing characteristics of its accounting information system (AIS). Data are presented on twelve investor-investee ‘dyads’ (i.e. matched pairs) in the UK venture capital industry. Weight of evidence is adduced in favour of five propositions, relating to: monitoring demands; internal change within the investee firm; the variety, extent and frequency of information change; the use of enhanced information for decision support; and the universalist influence of the investor. This evidence has implications for practitioners, as well as for future research on AIS development.

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Key words: Venture Capital, Accounting Information System (AIS), Entrepreneurial Firm

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INTRODUCTION

One of the most important events in the early life-cycle of any entrepreneurial firm which harbours serious growth ambitions is the infusion of external capital (Reid, 1996). This event can lead to significant changes in the firm's ownership composition, and affects its subsequent rate of growth and, consequently, its size and organisational structure. It is within the context of such changes that the managerial demand for information about the firm is stimulated. This study examines the origins and characteristics of developments in the accounting information systems (AIS) of firms which are going through this stage. It does so by investigating the consequences of venture capital\(^1\) intervention for the entrepreneurial firm, particularly as regards the characteristics of its accounting information system (AIS).

THEORY AND METHOD

Whilst studies of investors or of investees on either side of the venture capital relationship are common, our study is unusual in that it presents matched investor-investee cases (or ‘dyads’). By this route, it is possible to judge better the effectiveness of the relationship between investor and investee, as distinct from merely what is involved in the relationship. A case study, or qualitative approach, is used, which is
particularly appropriate to the study of relationships and their efficacy [cf. Yin (1994)]. Whilst this limits the generality of the analysis, it permits a detailed look at the internal structures of organisations in a fashion that conventional cross-section methods do not. As Scapens (1990, p.279) has argued: “Case studies may not locate general solutions to the problems faced by managers and accountants, but they can provide a better awareness of the issues involved. Case studies can provide ways of thinking about problems and, as such, are an important tool for the management accounting researcher”. The overarching framework within which this set of cases is explored is principal-agent analysis which, in an increasing body of literature, is used to represent the relationship between the venture capital investor (as principal) and the entrepreneur (as agent). For example, Gompers (1995) uses this approach to emphasise the role that monitoring plays at various stages of venture capital investment; and Lerner (1995) investigates the incentive effects of monitoring venture-backed firms through having venture capital representation on the board of directors. However, in this predominantly US literature, questions are rarely asked about the nature of information systems, and the issues that arise in their development. This paper aims to address this deficiency of the extant literature.

The significance of positive increments in the firm’s supply of external capital for the development of its accounting system depends on characteristics of the evolving circumstances which confront both the owners and managers of the firm. The venture capital investors (VCIs) have put their invested funds at risk, but both at the time of negotiating the subscription agreement\(^2\), and also subsequently through their ownership stake, they can take steps to ‘manage’ their risk by making direct and effective demands on the investee for regular information. This can be seen as an attempt to improve contractual efficiency between the investee and investor. Recent studies have shown
that VCs do expect that the power which arises from their investor status makes effective their demands for information from investees as regards its type, quality and frequency [Sweeting (1991), Mitchell et al (1995), Wright and Robbie (1996)]. Indeed, at the pre-investment stage, special investigations of the capacity of the investee's systems to meet the post-investment requirements of the VCI are frequently undertaken. Any upgrading which is thought to be necessary is then made a condition of the investment. Thus changes in the flow of information from the firm to its new investors become one potential influence on the form of the internal accounting system. Moreover, as decision-making is a central facet of entrepreneurship, it also influences the 'in house' provision of accounting information. In an uncertain world, the efficacy of decision-making is heavily conditioned by the quality of information available to the entrepreneur. Indeed information inadequacy is often associated with business distress and failure in small and medium sized enterprises (SMEs) [e.g. Storey et al (1987)], while better quality information has been associated with success and survival [e.g. Hutchison and Ray (1986)].

*Prima facie*, one would expect the providers of capital to firms which are classed as relatively risky investment opportunities to take steps to ensure that those to whom they commit funds are well served by information which is of relevance to their managerial decisions. It is also probable that this external pressure for development of the AIS is reinforced by those who can most directly influence the supply of information, namely the entrepreneurs/managers of the investee firms. Their motivation to enhance internal accounting methods is strengthened by two specific factors. The first is the need to have appropriate ‘decision support’ for the allocation of new or existing funds to their most productive uses, such that both *ex ante*, on the basis of projections, and *ex post*, on the basis of outcomes, an improvement is demonstrable. The second is that growth in
corporate size, which is contingent upon the planned use of the venture capital provided, often is perceived to reduce or eliminate that personal involvement of the entrepreneur in many aspects of his business, from which he may have derived satisfaction (‘psychic income’). Thus increased size creates a problem of control and may lead to a growth/profitability trade-off [Reid (1995)]. The need to monitor and report remains, but if it cannot be achieved so readily by direct personal supervision, the entrepreneur satisfies the need for involvement and superintendence directly through the generation of relevant information on performance. The AIS of the firm is one important source of such relevant information for control, and it typically requires modification to cope with those new and more extensive demands placed upon it which arise when the firm grows.

The focus of this paper is therefore on the impact of capital supply and ownership change on internal information provision. Broader consideration of the determinants of an appropriate AIS is contained in the literature on the contingency theory of management accounting [see Otley (1980), and Ezzamel and Harte (1987) for reviews]. This work suggests that key contingent variables influencing the AIS and its appropriate development are features of: the firm's environment (normally to be conceived of in terms of uncertainty); its technology (normally conceived of in terms of complexity); and its organisational structure (normally conceived of in terms of flexibility). It may be that the VCI influence will run counter to contingency theory, which suggests that industrial sector characteristics, like market competitiveness and technology, will be key formative influences on internal accounting. The VCI, in contrast, is more immune to these, and is likely to provide a standard influence independent of these factors. Jones (1995) has used a contingency theory approach to assess the importance of these features as determinants of internal accounting systems in merger situations where ownership has changed. He concluded that, “overall management accounting systems tended to bear
the characteristics of the Universalist theory...” i.e. that practical management accounting procedures remain similar despite differing contexts in terms of contingent variables. This paper extends this research by examining one of the factors which, for some firms, may exert a Universalist influence on the AIS. The presumption of part ownership by the VCI, and the institutionalisation of ‘standard’ information demands on investees, may represent strong formative influences on the genesis of AISs for SMEs going through an important stage of development. Also of relevance is the work of Jones (1992) on MBOs (which are predominantly VC backed). His work emphasises accounting control systems (ACS), and he shows that they are modified to facilitate changes which will enhance profitability, along lines which are consistent with contingency theory.

The theoretical backdrop to this paper is that the investor (VCI) can be treated as a risk neutral (fully diversified) principal, and the investee as a risk averse agent, and that both parties have an incentive to achieve an efficient contractual relationship with one another. This can be done by seeking a better sharing of risk and information. The investee has rich information, but is risk exposed. The investor has diversified away much of his risk, but has poor information. Efficient contracting would seek the optimal exchange of information-providing and risk-bearing capacities between investee and investor. First-best contracting may not be possible because, no matter the complexity of the information system, the investee’s activities are not completely observed. However, second-best contracting seeks efficiency, with information asymmetry being attenuated, and risk-sharing being limited so as to maintain the incentive for effort [cf. Reid (1996)].

Whilst the theoretical backdrop permits us to answer a wide range of questions, several of which we have reported upon elsewhere [e.g. Mitchell, Reid and Terry
(1995); Reid (1996)], our concern here is more narrowly focused on the information system. We do not have enough quantitative data to test hypotheses within the framework of classical statistical inference, but what quantitative evidence we do have, allied to the ‘thick’ qualitative data of the case studies, enables us to put forward the undernoted propositions for substantiation by our evidence. The study is therefore exploratory and should be viewed as an initial step in establishing the propositions empirically. It does aim to provide both a weight of evidence in their support and a basis for developing further research ideas related to their verification. In the sequence we report on below, earlier propositions are embedded in later propositions: thus the empirical argument assumes an increasing level of generality.

**Proposition 1**

Considerable monitoring demands in the form of accounting provision requirements will be imposed by the VCI.

Supporting evidence for this proposition would come from affirmative replies to the following questions. Are the VCI’s information demands met both pre- and post-investment? Is compliance with the VCI’s information demands enforceable? Can the VCI impose change in the form of the investee’s provision of information? Are cost impediments to the implementation of such change absent? Does the VCI have direct access to the investee’s information system? Can the VCI influence the investee’s audit? Is the frequency of information provision and its level of detail, as imposed by the VCI, in excess of statutory requirements?

**Proposition 2**
The fulfilling of monitoring demands by accounting information (Proposition 1) and other sources (e.g. the VCI having representation on the Board) stimulates the need for internal accounting change within the investee firm.

In addition to the evidence for Proposition 1, Proposition 2 requires that obvious information development, after VCI involvement, should have occurred. This would be expected in terms of both: performance measurement (profit and loss, financial ratios, etc); and accounting control (monitoring reports, setting of financial budgets, reporting of budget components).

**Proposition 3**

Not only will increases in the variety and extent of the procedures adopted occur to meet increased monitoring demands (Proposition 2), but also increases will occur in the frequency of provision of accounting information.

In addition to the evidence for Proposition 2, support for Proposition 3 requires an examination of the frequency of reporting over wide budgetary categories (profit and loss, cash flow, balance sheet, capital expenditure, headcount etc) on a frequency spectrum which extends from daily, weekly, monthly etc to annual. Pre- and post-VCI situations need considering to confirm both increased incidence of reporting at specific intervals and increased incidence of reporting at more frequent intervals.

**Proposition 4**
The development of more varied, extensive and frequent information flows (Proposition 3) will lead to the development of accounting information support for internal decision-making.

In addition to the evidence for Proposition 3, this evidence requires for its support that main categories of decision types (operating, strategic and capital investment) should be more widely supported after VCI involvement with the investee than before. Evidence of the perceived importance to investees of any one of these categories (e.g. capital investment) would further increase the weight of evidence for this proposition.

**Proposition 5**

The capital supply from the VCI has a strong and universalist influence on internal accounting systems in investee firms.

This proposition builds on the previous four propositions, and makes reference to the universalist theory of management accounting of Jones (1985). It requires support from a complete overview of AIS development after the VCI has started to infuse capital into the investee firm. It needs to be established that typically a range of AIS developments occur after VCI involvement, and that these may be extensive.

Whilst these propositions cannot be put into a classical hypothesis testing framework, they have been formulated in a way that permits a significant and persuasive body of qualitative evidence to be adduced in their favour. We turn now to a consideration of this ‘weight of evidence’.
THE STUDY

The study on which we report involved gathering data from a sample of twelve VCIs and twelve of their investee firms. The VCIs came from a random sample of those listed in the Venture Capital Report (fourth edition) which provides a comprehensive listing of active venture capitalists in the UK. One factor also determining the sample was the willingness of the VCI to allow one of its investee firms to be included. Thus out of a sample frame of forty-seven VCIs, twenty were randomly selected and twelve of these were prepared to allow the incorporation of an investee in the study. Investees were selected by the VCI on the basis of three criteria. Each investee had to be: (1) willing to grant an interview with its chief executives; (2) possessed of extensive experience of involvement with the VCI; and (3) representative of the VCI's investees, in terms of the nature and size of the VCI stake, its firm size and its industrial sector. An important feature of our study is that investor and investee are matched or paired into ‘dyads’. A summary of key sample characteristics of investor-investee ‘dyads’ is given in Table 1.

It is to be noted that the sample of twelve cases (A through to L) displays considerable variation by size measures (e.g. funds managed, turnover), structure (e.g. ratio of venture capital executives to investees, venture capital stake) and sectoral activity. It represents well the larger body of investor-investee relations in the UK venture capital industry [Mitchell, Reid and Terry (1995)], so far as individual (rather than paired) investor and investee data indicate. Such sample bias as exists is likely to be by investment stage, and by performance. The typical investment stage was development (45%) followed by buy-out (40%), which is close to the industry figures reported in Reid (1996, p.5) of (43%, 38%) and (21%, 32%) for development and buy-out respectively in (1990, 1992), but arguably over-represents buy-outs. As regards performance, we have no complete
post-exit data to give an authoritative view, but it is possible that the subset who provided investees have, on average, higher performance than those which do not.

[Table 1 near here]

Data were gathered by structured interviews with VCI's and their nominated investees. Typically, senior management within the VCI's were interviewed, their usual designations being ‘Partner’, ‘Executive’, ‘Director’, etc. These interviews were conducted face-to-face between June 1992 and December 1993. Two researchers were involved in each interview, one as interviewer and one as recorder. The interviews varied in duration between one and a half to two and a half hours. They covered risk management and key aspects of the nature of VCI's demands for accounting information and the nature and development of investees’ AISs. All of the VCI's interviewed had gained considerable (typically twelve years) experience in the venture capital industry, and often had a familiarity with accounting methods; and all of the investees were represented by chief executives who had been involved in many aspects of the process of raising venture capital funds for their businesses.

(i) Establishing the Information Source

All of the VCI's interviewed made effective demands on their investees for accounting information, not only at the time of making the investment, in part having drawn lessons concerning system shortfalls in the execution of their original due diligence, but also subsequently, in the light of the evolving investor/investee relationship, to ensure a regular flow of monitoring information. The requirements which VCI's placed on the investees to report externally therefore set a minimum standard of systematic accounting information provision within the investee companies. To ensure compliance, the establishment of an appropriate system was a normal condition of investment. Every
VCI interviewed (with one exception) undertook a vetting of the investee’s AIS. Even the one which did not was at least positive about the idea, saying:

“We want to do this but haven’t in the past. In the past we haven't looked at their accounting but we realise the investees need good information not just for me but also for their own decision-making.”

Most of the other eleven VCIs (n=9) assessed the investee’s AISs themselves. Of these, two also used auditors’ findings (e.g. the reviewing of recent letters by managers and the reactions of clients to them). For another two, one relied on the auditor to judge the system in use, and the other commissioned special investigative reviews by independent accountants. In seven cases, the VCIs indicated that they regularly required changes to be made. They cited examples of improvements in various aspects of internal accounting which had been made at their insistence (e.g. the development of the sales system, the creation of an effective credit control system, the creation of a costing system). Moreover, one VCI assessed the quality of staff involved in operating the accounting systems, and prompted the recruitment of better staff where necessary. In one case, involving smaller investors, the VCI was even more proactive in influencing internal accounting:

“Sometimes I set them up to begin with ... I show them my accounting system and several of them use it until they grow ...”

Thus the concern of VCIs for the availability of reliable and relevant accounting information was manifested primarily in their readiness to examine and improve the
underlying system. However it was also apparent in three other facets of their behaviour towards investees.

First, in most cases (n=9), the deterrent effect of extra costs of generating and/or processing information was not considered to impose a constraint on obtaining what the VCI wanted to know. Indeed several saw the pursuit of information needs through to their provision as a central facet of their role:

“This is a very real issue. It is very important to get information, and if it does cost more, then so be it. There is no greater crime than to report back, ‘don’t know’.”

“The trend which I’ve seen over the last 12 years is to be more and more cautious on financial information, to gather more and more information to balance against the price of a deal.”

“Information gathering is an essential cost. We are paid a management fee by our clients to monitor our investments.”

Although the information which was perceived as necessary would apparently be gathered with little regard to its total cost, a number of VCIs did also express the view that the incremental cost to them of information was seldom high. In view of this, they would ensure that the investee firm had established a system to produce all that was needed. They would not be perturbed at the prospect of imposing any new requirements, for their implementation would, in any case, be funded by the investee. The VCIs’ information demands were however selective (see following section) and
attempts were made to contain the volume of information received, so that overload did not become a problem.

“Processing it is the problem. You can only absorb so much information. We occasionally shout ‘stop’.”

“We like to think we don’t ask for information we can’t process. It is important to home in on key variables.”

Second, over half (n=7) of the VCIs had obtained direct access to their investees’ internal accounting systems, in the sense of firsthand exposure to internally generated data and reports. This access had enhanced their capacities both to monitor and to verify the information provided. Finally, ten of the twelve VCIs specifically influenced the audit of the investee company. Six did so by an involvement in the selection of the auditor, with a strong preference being expressed for “big, reputable” firms. The remaining four were prepared to initiate additional audit work, where problems were apparent which required more external visibility. The two VCIs who did not exert any audit influence did, however, request and study the annual management letter from the auditor.6

(ii) Information Required

All twelve VCIs had established the requirement for investees to return a fairly conventional packages of accounting information every month, and used this as the basis for monitoring their investees' performance. These data were frequently referred to as the “monthly management accounts”. They typically consisted of three financial
statements: the balance sheet; the profit and loss account; and the cash flow statement. These are described as conventional, because of the commonness of this type of information, both for internal and external reporting.

These statements also constitute the core financial content of the statutory shareholders' report. However, the VCI's package differed from this report, not only in terms of reporting frequency, but also in several other significant respects. In particular, the level of detail disclosed was greater than that which was statutorily required for external reporting. For example, the profit and loss account supplied would normally incorporate the segmentation of turnover by product line, expenses would be detailed to show the make up of cost of sales and overheads, and a similar breakdown of cash flows would be available. In addition, five of the VCIs specifically mentioned that these financial results would be presented within the context of the investee firm's budget to provide a clear comparison of budgeted against actual magnitudes. Two VCIs also requested the investee company’s management to provide a written commentary or narrative on the results contained in the monthly information package. Whilst these figures for reporting variances, and returning narratives, may seem low, it must be borne in mind that some VCIs may discuss results orally with the firm, or may be present at Board meetings where they are discussed. The budget will of course be in VCI’s possession so, in other cases, they may check budget variances for themselves. To provide some further indication of investees’ future prospects, another two VCIs required a report on their order book positions. Finally, various forms of supplementary information, all directly or indirectly linked to performance, were requested in the light of specific needs of individual VCIs. These included measures of product quality, and capacity utilisation, as well as capital investment proposals and gearing ratios.
Information requirements were, in the main, set and enforced in a fairly standard manner. In all cases investees had, at some stage, to meet the basic demands for information described above, and five of the VCIs allowed no variation in these information demands. The others did allow a measure of flexibility. Four allowed some relaxation in the regularity of reporting (from monthly to a quarterly or half-yearly basis). This required that the relationships they had with investees were well established, and that investees had generated satisfactory track records over this time. Another VCI did not require reports from investees before trading operations had started, and yet another allowed investees to report on differing bases, depending on how reporting demands had evolved over the 1980s.

THE INVESTEES’ AIS: PRACTICE AND CHANGE

The sample of twelve representative investees provided information on both the nature of their AISs and the developments which had occurred therein subsequent to VCIs’ involvements with them. Their responses are presented in three sections below (viz. performance measurement, budgetary control and decision-making).

(i) Performance Measurement

This aspect of the study focused on the operating performance of the investee. Key components of the profit and loss account (e.g. turnover, labour costs, profit), cash flow, and some financial ratios (linking the profit and loss account to the balance sheet) were all specifically discussed. In addition, the investees were requested to identify any other important means by which they assessed their firm’s progress and performance. Table 2 summarises the responses. The general picture is of a rich flow of information from investee to investor, as would be expected in situations of relatively high risk, in which
risk can be ‘managed’ be attenuating the information asymmetry between investee and investor.

[Table 2 near here]

Turnover, profit and cash flow information were used within all of the investee companies and with only two exceptions (on cash flow) these types of information were also reported to the VCI. Cash flow information did reflect some potential degree of VCI influence in its generation. In four cases its development had only occurred after VCI involvement. The utilisation of the profit & loss account and balance sheet information to derive commonly used financial ratios occurred in roughly half of the firms, and if desired they were typically reported to the VCI. However, only in the case of the return on equity capital employed (a ‘shareholder’ ratio) was there an indication of a significant number of investees developing the measure in response to requests from their VCIs. The ‘other’ key performance measures used by investees had largely been associated with the VCI link. They included market share analysis \( (n=1) \); stock turnover \( (n=1) \); profit margin \( (n=1) \); order situation \( (n=1) \); debtor analysis \( (n=1) \); headcount \( (n=1) \); overtime volume \( (n=1) \) research milestones \( (n=1) \); and proof of bank covenant compliance \( (n=1) \).

(ii) Control

To ascertain details of the accounting control system within investee firms, interviewees were asked whether they: (a) produced information to allow them to monitor their business operations; and (b) set financial budgets. If relevant, they had to identify the key components of their budgets, and the basis on which they were reviewed over time (e.g. monthly, quarterly, etc) and used for control purposes. Each was also requested to indicate if the control information produced had been developed since becoming
involved with their VCI. The responses are reported by the class of control information in Table 3 and by the frequency of budgetary reporting in Table 4.

[Table 3 near here]

For all classes of control information reported in Table 3, the information generated internally by the investee is typically reported to the VCI. In just one case, the monitoring report, this was not done. Generally, the VCI played a significant role in making its demand for information met by the investee. Thus, for most classes of control information, about a quarter of this provision had occurred after the VCI had become involved. The one exception to this was in the setting of financial budgets, a crucial class of control information even for independent SMEs, in which case the influence of the VCI was less.

[Table 4 near here]

Table 4 emphasises another aspect of information provision, namely its time basis, flow rate, or frequency, as opposed to its volume or variety. Six forms of budgetary reporting are identified, covering a wide range of types from profit and loss account, through balance sheet, to head count. The frequency of reporting is then indicated, both before (first row) and after (second row) VCI involvement with the investee. Overall, annual and monthly reporting are the typical frequencies. For all classes of budgetary reporting, the effect of VCI involvement is almost always to raise the frequency of reporting, in two senses. First, more investees are involved in reporting at any given interval (e.g. annual) after VCI involvement, as compared to before. Second, additional intervals for reporting may also be required (e.g. bi-annual as well as annual) after VCI involvement, as compared to before. For example, bi-annual reporting emerges for the profit and loss account and balance sheet, and quarterly reporting emerges for the balance sheet. Thus the general picture of increased frequency of reporting as a result of
VCI involvement is substantiated. In the sample of Jones (1992), involving more mature firms, in which monthly accounts were already commonplace, this effect was less obvious. However, there was increased frequency of performance forecast updates, and marked increase in frequency of cash flow reporting. Further, the importance of reporting, the greater emphasis in Jones (1992), was considerably increased following MBO.

To conclude our analysis of control, we find that monitoring reports and budgetary control systems were widely used within the investee firms, to an extent which the VCIs affected positively. Financial control through budgetary targets was an important aspect of operations and one that was used with differing degrees of flexibility, as the following qualitative evidence indicates:

“We know what we have in the bank and what we should have next month in the bank. Everything is looked at virtually daily. We're locked into a six month cycle: ... We're on a treadmill that doesn’t stop.”

“The budget is set annually and we phase it month by month. We might reset the budget depending on the circumstances prevailing at the time.”

“We set the budget every 12 months if the Tables run in line with the budget. But if they deviate we review the results, which leads to a new budget.”

(iii) Decision-making

The investees were asked about the accounting information produced within their organisations for decision-making. Once again they were requested to indicate if this
type of information was reported to their VCI and whether or not it had been developed subsequent to the VCI involvement with them. Some exploration of the type of information produced was also made. The results on decision types are presented in Table 5. The decision types identified are: operating, strategic and capital investment.

[Table 5 near here]

The results indicate the widespread development of AIS support for internal decision-making. Moreover in a substantial number of cases this type of information was reported to the investee’s VCI. This pattern was most marked in the case of capital investment analysis. Indeed, particularly with regard to longer-run decisions on strategy and investment, the VCI's involvement was linked with the new development of accounting information.

Two information types for decision-making were investigated: output costing and capital investment. Of four output costing procedures considered, it was found that full costing (including a non-production element), which has enjoyed increasing advocacy, particularly for decision-making in recent years [Kaplan and Shank (1990), Shank and Govindarajan (1989)] was in predominant use (two-thirds of the firms). The results on capital investment techniques are displayed in Table 6. They broadly mirror

[Table 6 near here]

the pattern of usage found in more general surveys of practice in larger firms [e.g. Pike (1982)]. Payback (in all uses) and qualitative assessments (in eight of the nine users) are both widely used and generally influential in investment decisions. Accounting rate of return is used by half of the investees, but is typically not regarded as highly important, while both of the main discounting techniques (IRR, NPV) are used in less than half of the subjects. The four net present value users also used the internal rate of return. When use of the IRR is favoured (typically as computed with Lotus 123 software) it is regarded
as important. It is worth noting here that the contrast between the VCI’s typical predilection for IRRs and the fact that for many projects, especially those involving an outflow, followed by fairly uniform annual inflows, the inverse of the payback approximates to the IRR. In this sense, the two approaches provide the same decision signals. More generally, requests by VCIs for NPV information on capital projects which have been envisaged by, or committed to, by either potential or invested-in firms, may represent an example of one of the ways in which the VCI ‘tests’ for management awareness. This relates both to the DCF technique as a guide to management decision-making, but also to its indicating that management has given thought to alternative expenditures. Reciprocally, VCIs may wish to use capital expenditure appraisal as a useful lesson, or issue, through which to demonstrate a concern for how firms select projects.

OVERVIEW OF FINDINGS

Tables 7 and 8 contain summaries of our results, highlighting the key aspects of VCIs’ involvements in developing AISs. Table 7 considers six VCI policies. The ticks indicate by their presence an interest by the VCI (as evidenced by the adherence to the stated policies/requirements) in the capabilities their investees have in supplying accounting information. They also indicate considerable variation across cases in the policies underlying the VCIs' demand for accounting information. Half of the VCIs exhibited a relatively comprehensive approach to accessing information by pursuing five of the six policies investigated in this study. By investor types, these were independent investment management companies or (one) a subsidiary thereof. By contrast, a distinct third of the VCIs appeared to adopt a more laissez-faire attitude, and only pursued three or less of
the six policies. All the investors in this group were subsidiaries of banks. Thus the institutions which specialise most in investment management appear to set more comprehensive information requirements for investees.

[Table 8 near here]

The representative investees considered in Table 8 also exhibit considerable variation in the nature of AIS developments after their VCI involvement in terms of performance measurement, after control and decision-making. Whilst the overall extent of change was just over 25% of the cells in this Table, only two cases (A, L) experienced no change, most experienced some change, over several AIS features, and one (D) experienced extensive change. Finally, for this sample, it is hard to detect systematic variation in the pattern of data concerning the VCI/investee dyads as they relate to AIS development. For example, a higher level of involvement in the investee's AIS does not appear to result in more AIS change. This, of course, may be explained by the varying quality of each investee’s AIS prior to a VCI taking a stake in its business.

CONCLUSIONS

In terms of VCI monitoring behaviour and investee AIS change (post VCI involvement), the study does provide considerable support for the five propositions developed in the preceding theory and method section. In addition to providing this validation, a basis for identifying a number of opportunities for extending the research has been established, and some implications for practitioners can be derived.

The results of this study indicate that VCIs view the capabilities of their potential investees’ AIS as endogenous to their own decisions as to whether to back the firms. This view may in part reflect their desire to see the management of investee firms supplied with appropriate information for operational purposes, but it also is a function
of their own needs for regular information flows for monitoring purposes. The VCIs’ power to influence the investees’ internal accounting systems has its basis both in their ownership stake, and in the conditions negotiated (and incorporated into) the initial subscription agreement. Thus VCIs can exert this power to influence significantly both the content and the frequency of accounting reports. Their specific information demands do tend to be both conventional and similar, and are typically based on a monthly package of traditional financial statements. However, particularly where problems exist, more information may be demanded on an even more regular basis.\(^7\)

In many cases, the AISs of investees do change when VCIs become involved, not only with respect to performance measurement but also with respect to control and decision-making functions. In this process, the role of the VCI is important, especially as his involvement occurs in the relatively early stage of AIS development, at which point the potential exists for him to have a strong formative impact. Thus the sources and forms of VCI influence contrast noticeably with the variables identified by contingency theorists as being important in their explanations of management accounting practices. The latter emphasise the demands of firm and/or industry specific effects (e.g. market environment, organisational structure and technology), whilst VCIs emphasise demands based on “in house” standards which are applied to all investees, irrespective of their particular operational circumstances.

While investees are free to adopt their own approaches to internal accounting, the burdens and costs of more than one system might well be impractical for SMEs. This encourages the VCI-driven system to dominate, and thus it tends to determine the path of future development for the SME. This adaptation of procedures indicates the movement to an improved match between important components of the accounting control system and the changing organisational context, here relating to various forms of
venture capital intervention, and in the case of Jones (1992), relating specifically to MBO.

The study also adds weight to the argument for attaching importance to accounting information in managing the investment contract between investor and investee. Moreover, the AIS adopted must be capable of handling periods of difficult, or off-target, trading conditions. The strengths of the AIS become most relevant when there is a requirement for unforeseen additional funds or ‘re-financing’. Such an event would probably imply some degree of contract re-negotiation, involving issues such as: the realignment of equity stakes; and the further refinement of the information interchange represented by the AIS.

The results of this study are exploratory and suggest a number of avenues for future research on the nature and significance of the VCI’s involvement with the investee for the development of the latter’s AIS. First, the topic most obviously meriting further investigation concerns the perception of investee managers of the usefulness of their AISs, and their experience of using their information outputs in the pursuit of entrepreneurial activities. Second, an extension of the methods used here could be devised for determining the importance of the VCI’s influence. For example, this could be done by examining matched pairs of investees’ AISs for cases with, and without, venture capital involvement at various stages of development. Third, a larger sample study of our current topic might allow greater scope for using methods of statistical inference on VCI policies and their ramifications for AISs. Fourth, the method used here could be extended to the single principal/multiple (rather than single) agent case, allowing scope for examining the extent of variations in AIS developments, consequent upon VCI involvement across different agents (i.e. investees). Fifth, a fuller account of the investees’ AIS prior to VCI involvement could be obtained as this knowledge might
contribute to the explanation of AIS change after VCI involvement. The more sophisticated the initial AIS, the less the change expected. Sixth, the durability of the VCI influence on the investee AIS could be explored by longitudinal study.

Turning now to practitioners, our research findings highlight for them the operational significance to VCs of collecting and interpreting information supplied or controlled by investee firms. The ease of access, the making sense of, and the imputed reliability of such information will be directly influenced by the appropriateness and efficiency of the AIS/MCS. This set of factors is important to practitioners in terms of the investment selection decision, as it attenuates adverse selection, and in terms of investment monitoring, as it helps to ameliorate the consequences of moral hazard. Thus there is an incentive for the investor to become involved in designing and developing such systems. To illustrate, the VCI can derive benefit beyond the enhancement of quality and frequency of information by seeking to enhance its reputation among potential investee firms and financial intermediance, thereby improving its deal flow. Similarly, it can use its commitment to improving this aspect of investee firms’ operations as an additional way of justifying fees and interest charges. To further illustrate, an effective AIS can aid the VCI in deriving a clearer picture of alternative routes and possible timings for the exit arrangement. Thus early indications of features such as the ‘burn rate’ of cash, and the requirement for additional funding, are vital to effective investment management. In sum, both in terms of potential for further work, and in terms of insights for practitioners, it is hoped that the above study is of interest to those concerned with investment management from either academic or practical standpoint.
References


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Footnotes

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1 Originally, influenced by US practice, referring to high-risk, high-return unquoted equity involvement, but increasingly, in a UK context, having the connotation of development capital. An emerging term is ‘private equity’, which emphasizes the highly incentivised arrangements agreed between investor and investee.

2 Although many such agreements are standardised, an opportunity exists for customisation (e.g. by type and frequency of accounting information requested). To this extent, the paper casts some light on the sort of provisions that are likely to be found in this essentially confidential document.

3 The figure of 99% for the venture capital stake of Case F is correct, but refers to a development company with multiple VCI involvement.

4 Such letters may signal to the VCI the sort of information that needs to be sought, or areas where the system can be improved. This role in the development of the AIS is an incentive arrangement permitted by VCIs, allowing investees to go beyond the reporting uses of information (e.g. to proactive decision-making and strategic planning). Viewed in this way, the AIS plays a role in the trajectory to investment realisation, and begins to play a Management IS function.

5 A significant comment, emphasising that the higher the value of the equity at the time of investment, the greater will the firm’s performance have to be to raise the value at exit to a level which will enable the target IRR to be realised.


7 When problems occur with investees, the normal procedure is to put them into so-called ‘intensive care’. This entails a much greater degree of VCI involvement in the day-to-day operations of the business. The AIS must be sensitive enough to provide early warning of such problems, yet robust enough to allow for an expansion of the role of information beyond simple monitoring, to control of the sort emphasised by Jones (1992, p.163), as well as indicating (by area of responsibility) and prescribing (by diagnosis of fault, error or malfunction).