

Control Aversion and the Search for External Financing in Swedish SMEs

Björn Berggren
Christer Olofsson
Lars Silver

ABSTRACT. The discussion on growth (see Storey, 1997) and control aversion (Cressy, 1995; Chittenden et al., 1996; Cressy and Olofsson, 1996) in small and medium sized firms has been attracting an increasing amount of attention. Our purpose in this article is to identify under what circumstances small and medium sized firms are prepared to accept outside control in the business firm in order to grow. In the article it is argued that technology development, financial strength, size and perceived need to grow, change firms attitudes towards external financiers. The change in attitude towards more openness eventually leads to an actual behaviour where the principals choose to apply for external finance in the form of bank loans. A linear structural equation modelling program, LISREL, is used to analyse a sample of 281 Swedish firms. The firms all have less than 200 employees, and the sample includes both manufacturing and service firms.

Introduction

Research in the field of small and medium sized enterprises (SMEs) has expanded rapidly over the past two decades (see Stevenson and Jarillo, 1990; Landström and Johannisson, 1998). With the new knowledge about the contribution SMEs make to the total employment (see Birch, 1979; Davidsson et al., 1994, 1996) and the decreasing number of employees within the larger companies due to downsizing, many policymakers see SMEs as imperative in the creation of new employment opportunities (Storey, 1997). In Sweden this trend has been further highlighted by the recent development where Swedish multinational corporations

are moving production as well as research abroad. The problem with the expected growth of SMEs seems to be that while policymakers expect these firms to grow, they are not always willing to do so (Curran, 1986). The question then is not how one should provide more funds to these firms, but why do they choose to seek external finance in the first place (see Cressy and Olofsson, 1996). This article is an attempt to explain the forces influencing firms in seeking external finance.

Theoretical points of departure

The majority of the studies focusing on the financial conditions for SMEs investigate how different financial intermediaries – such as banks and venture capital companies – evaluate firms (see Deng et al., 1991; Shanmugam and Bourke, 1992; Hall and Hofer, 1993; Fried and Hisrich, 1994). Over the past couple of years some researchers have refocused and studied the mechanisms that are in play when it comes to financial search activity in SMEs, influenced in part by models that have been developed in larger enterprises (see Donaldson, 1984; Myers, 1984). The results from these studies indicate that small business managers are very reluctant to take on new external finance (see Reid, 1996). In all of these studies the underlying theme is the inherent information asymmetry between financiers and firms. That is, the uneven distribution of information between the financier and the firm decreases the level of trust between the two parties. The information asymmetry results in information costs that may eventually result in lost enterprises (Binks et al., 1992). Even though many researchers typically attribute the borrower as the holder of information, there are researchers

Final version accepted on October 26, 2000

*Department of Business Studies
Uppsala University
P.O. Box 513
S-751 20 Uppsala
Sweden
E-mail: bjorn.berggren@fek.uu.se*



Small Business Economics 15: 233–242, 2000.
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who argue that it may well be the other way around (De Meza and Southey, 1996). Ultimately, the reduction of information asymmetry lies in the actors ability to form a close working relationship (Binks and Ennew, 1996).

The behaviour of entrepreneurs has been the focus of several studies (Gartner et al., 1992; Ripsas, 1998). Not only is it important to investigate how entrepreneurs act, it is perhaps even more important to determine why they act in a certain way (Stevenson and Jarillo, 1990). One avenue of approach has been to look at the SMEs' role as drivers of technological development (Dodgson, 1990). This approach has entailed a notion that SMEs in industries with a high rate of technological change have a considerable influence on the development of technology. Therefore, it is conceivable that firms in these industries have different perceptions from firms in more stable industries. And it is likely that they not only perceive the world differently, but that they also act differently.

Another aspect is the overreliance on internally generated funds, which imposes a major constraint on economic growth (Chittenden et al., 1996). Thus, the actual financial status of the firm seems to influence the attitudes entrepreneurs have, and the actions they take. Cressy has used the concepts of "movers" and "stayers" (Cressy, 1995). Stayers are, typically, conservative entrepreneurs. This means that they generally experience low levels of external financing, which consequently leads to low profitability. The movers, on the other hand, experience high levels of external financing, and subsequently also high profitability. At the same time, it should be acknowledged that movers also take higher risks, which may not always suit the financiers.

A third approach is to look at growth and size (Storey, 1997). Growth is limited as much by the psychology of the entrepreneur as by the financial resources as such (Cressy, 1995). Therefore, it is conceivable that the overall attitudes towards external financiers are shaped by the perceived need to grow in order to survive. If entrepreneurs believe that growth is necessary, then they will probably also do whatever is necessary to ensure survival. If this includes a different set of attitudes towards external financiers, then so be it. Growth is also connected to the wider issue of the relative

size of the firm. Larger firms can be expected to have different perceptions about financiers as opposed to smaller firms.

Technological development

The development of technology and the impact of new production methods shape many industries (Murray, 1997). In turbulent environments, business firms need to maintain a readiness to invest in emerging technologies if they are to survive and prosper (see Oakey, 1984). Business firms operating in high-tech environments are perhaps the most obvious examples of firms needing to constantly reinvest in machinery and equipment, as, by definition, they must be on the cutting edge of technology development (Roberts, 1991).

The impact of a higher reinvestment rate is not the only reason why these firms need an open attitude towards external financiers. There is also a contributory factor associated with the uncertainty of the capabilities and properties of invested machinery and equipment which plays a role (Lindström and Olofsson, 1998). As the inherent heterogeneity forces firms to refocus and to try out new resource combinations, including new combinations of technology and raw material, it also becomes imperative to acquire adequate financial backing to support investments entailing higher risks.

H1: The greater a firm's need is to invest in new machinery and technology, the more favourable will it perceive the use of external financiers.

Financial weakness

Several studies (see Reid, 1996; Winborg and Landström, 1997) have shown that most entrepreneurs are not actually interested in obtaining external finance, especially any that would entail any change of ownership. The main reason for this reluctance to allow external financiers access seems to be control aversion (Cressy, 1995). The internally generated funds in effect becomes a spending limit for control averse firms. Simply put, firms will not allow themselves to invest, unless it is absolutely certain that all capital

needed can be generated without compromising the existing balance between internally versus externally originated funds.

As decisions regarding whether to accept externally generated funds are generally strategic in nature, because it takes time to attract external financiers, the equity to debt ratio is of primary importance in measuring financial distress. The equity to debt ratio is essentially a measure of a firm's capacity to cope with losses over a long period of time, as it is a measure of the fundamental capital structure in a business firm. In agreement with this, a study by Landström and Winborg (1995) concludes that attitudes towards external financiers are in fact partly dependent on the financial status of the firm. When the firm experiences financial difficulties, the attitude towards external financiers changes and tends to be more positive.

H2: The poorer a firm's financial status, the more favourable will it perceive the use of external financiers.

Growth pressure

Recent research about small and medium sized firms has to a large extent focused on growth (see Davidsson and Wiklund, 2000; Donckels, 2000). Storey (1997) identifies several factors that explain why some small firms grow, whilst others do not. The analysis shows that younger firms in dynamic sectors tends to grow faster. Hall (1989) has provided evidence that the ambition to grow is correlated to the financial search activity. One group of firms, what Cressy (1995) would call movers, seems to display a strong ambition to grow, which in turn leads to a greater need for capital. These firms are more active in searching for new financiers when the internally generated funds are inadequate (Olofsson, 1994). Fast growing firms therefore tend to display less control aversion. It can be questioned if this attitude is "voluntary" or if the need to grow is connected to the actual survival of the firm.

H3: The greater the importance a firm places in the growth in the number of employees, the more favourable will it perceive the use of external financiers.

Size

When firms grow, they gradually attain a greater ability in resource generation, but they also encounter new difficulties in terms of financial leverage and also in the form of new expectations and requirements (Storey, 1997). As a firm grows, the individual entrepreneur is forced to relinquish control of daily operations into the hands of subordinates (Wiklund, 1998). Increasingly, the entrepreneur also becomes dependent on skills possessed by individuals outside the firm, such as bankers, lawyers and auditors. Regardless of whether control is dispersed within or outside the confines of the firm, the original owner will have to become professional in the handling of financial matters. This usually leads to more elaborate relationships with financial institutions, which in turn leads to an increasing awareness of the possibilities inherent in bank financing. Not surprisingly, earlier research (see Cressy and Olofsson, 1996) has indicated that larger firms have a more favourable perception of external financing.

H4: The larger the firm, the more favourable will it perceive the use of external financiers.

Control aversion and bank loan applications

Donaldson's research from the 1960s indicates that managers do not always prefer the source of finance that has the lowest interest rate (Donaldson, 1961, 1969). Later research (Donaldson, 1984; Myers, 1984) has shown that firms seem to have a stable order of preference for different sources of finance: Internally generated funds are preferred to bank loans, which in turn are preferred to new equity. This stable preference order towards financial sources is referred to as the "pecking-order" by Myers (1984). Both Donaldson and Myers studied large listed American enterprises, which certainly operate under different circumstances to SMEs. Nevertheless, several studies have shown that the pecking-order framework is a fruitful approach for the study of financial decision-making in small firms (Reid, 1996). The results from (Cressy and Olofsson, 1996) suggests that the SMEs in Sweden have a financial pecking-order: The internally

generated funds are most important, followed by bank loans and new equity from external partners. This also leads to the conclusion that if small and medium sized enterprises choose to seek external financing they will try to follow the pecking-order theory.

H5: The more favourable a firm perceives external financing to be, the more likely it is that the firm will actually seek financing from a bank.

Methodology

Sample and response rate

The empirical evidence consists of the results of a survey sent to 545 CEOs in Swedish SMEs. In this study we define the term "SME" to include firms with less than 200 employees. This definition is originally derived from the Bolton Report, and this number has come to be accepted in Swedish studies as the norm due to the scarcity of large firms (Bolton, 1971; for Sweden, see Davidsson, 1989). Due to quality problems in the data from Statistics Sweden, it was decided to exclude firms with less than five employees. In addition, firms were excluded if they belonged to groups of companies with more than 200 employees. All firms in this study are incorporated, because of the requirements for the availability of accounts data. All Swedish manufacturing sectors are included in the definition of manufacturing, with the exception of newspapers

and publishing houses. Business services sectors include computer consultancy and software and other technical services; consultancy services in the corporate organisation/rationalisation; and corporate security services. There are three different size groups, 5–19 employees, 20–49 employees and 50–199 employees within the two business sectors. The sample extraction was made at Statistics Sweden in late October 1997. The total sample consisted of 600 firms. After exclusion of firms outside the target group, the sample consisted of 545 firms. Of the 545 firms 281 responded, which resulted in a response rate of 51.6 percent. In the different strata the response rates were similar, between 48 and 52%.

The table shows that manufacturing firms on average are fifteen years older than business services firms when evaluated at the median. One of the reasons behind this is the fact that younger firms have a higher death ratio than older firms. Another explanation is the lower entry and exit barriers within the business service sector in comparison with the manufacturing sector. From Table I it can also be derived that the growth rate among the business service firms are higher than among the manufacturing firms. This is true for both turnover and number of employees.

Non-respondents

One problem with survey studies has to do with non-respondents. If the ratio of non-respondents to respondents is large, there is risk of distortion, which limits the possibility to make generalisa-

TABLE I
Age, number of employees and turnover by industry sector

Industry sector	Mean		Median	
	Manufacturing	Business services	Manufacturing	Business services
Age	33	17	25	10
No. of employees				
1996	48	36	25	20
1998	51	51	28	33
Turnover, MSEK ^a				
1996	68	43	24	20
1998	80	61	32	30

^a MSEK = Million Swedish Krona.

tions from the study. To reduce the risk of distortion, we have made a simple test to see whether the non-respondents differed from respondents in terms of industry and size, since these variables have been shown to have an impact on financial search behaviour (Cressy and Olofsson, 1996). The analysis indicated that there were no significant differences between respondents and non-respondents as far as the variables main business, second business, geographical location, number of branches and size were concerned. The *p*-values varied between 0.29–0.95.

According to some researchers, there are similarities between late respondents and non-respondents (Armstrong and Overton, 1977). We divided the sample in two halves, one with early respondents and one with late respondents and tested whether there were any differences between the two groups. Of the more than 100 variables we have collected, we found that five differed significantly between the early and late respondents. However, we were not able to see any pattern in the differences.

LISREL

The data have been analysed using the LISREL method, a modelling method using structural equations. The primary advantage of LISREL lies in the program's ability to test the significance of indicators and constructs simultaneously across the model. The program provides warnings if there are interrelationships between constructs that have not been suggested in the original model. Therefore, models can be developed through the use of these suggested modifications. Anderson and Gerbing (1988) argue that the model-building task can be seen as a two step approach. The first stage uses factor analysis to provide a confirmatory measurement model that specifies the properties of constructs. In the second stage, the causal relations between constructs are analysed. In the LISREL program, these two separate stages are conducted simultaneously.

The principal drawback is the exploratory use of LISREL. The constructs need to be solid theoretically in order for the program to function properly. Bentler and Chou (1987) argue that one of the most important questions in structural modelling is whether the sample comes from a

population that is relevant to the theoretical ideas that are being evaluated. In our view, this means that the crucial element in analysing the results of LISREL models is to make absolutely sure that the latent variables, that is, the questions asked (as this article is based on a survey), correspond with the theoretical claims that are made and, subsequently, with the conclusions generated through the use of the model. Thus, if the model provides an acceptable fit within the program and a plausible connection between the questions and the theoretical constructs, then, and only then can it be claimed that progress has been made. The latent variable used must make sense in the given domain (Bentler and Chou, 1987).

A common notion is that there is a clear-cut difference between confirmatory and exploratory research. In practice, though, it is hard to assume that a confirmatory analysis needs to provide a perfect fit without resorting to adjustments in the form of respecifications. If this were the case, most models would invariably fail, and the generation of a model providing an acceptable fit would be a statistical rarity if it were to pass the rigorous testing of the LISREL program (Anderson and Gerbing, 1988). Therefore, it is usually necessary to include an element of exploratory analysis, in the form of respecifications, to generate a functioning model.

In LISREL models, validity is supposed to be estimated using three different levels of testing: Nomological validity is the validity of the entire model; discriminant validity checks for the independence of constructs from interference from other constructs; and convergent validity concerns the coherence of the latent variables in a given construct. The nomological validity of a LISREL model is assessed by measuring the distance between the data and the model using the degree of freedom and a significance test in the form of a probability estimate (*p*-value). The discriminant and convergent validity are measured by studying the *t*-values and *R*² values of each relation in the model. The *R*² value provides a measurement of the strength of a linear relationship. The *t*-values provide a test of significance, and the LISREL program suggests a *t*-value of at least 1.96 (Jöreskog and Sörbom, 1993).

The development of the model

The model originally posited that size, technological development, growth pressure and financial weakness are all directly correlated to a change in control aversion and, subsequently, to an actual change in the type of financing sought.

During the testing of the model, it turned out that the model seemed to lack some components. More specifically, the concepts of size and financial weakness posed problems. The LISREL program suggested respecifications, and these modifications turned out to be a plausible addition to the model.

First, there was a change in the form of an addition of a correlation between size and the actual bank loan application. This is fully in accordance with our suggested hypothesis in that it strengthened the argument that larger firms are not as reliant on bank loans as smaller ones. As was suggested earlier, larger firms tend to use internal funds or other outside sources, rather than bank loans. So, even if the control aversion is lower among larger firms, one of the primary reasons seems to be that this is due to a lower degree of reliance on bank financing. It should also be stressed that the model suggests a general attitude towards external financing, which in turn implies that lower control aversion in larger firms leads to

the extended use of alternative financing, rather than conventional bank financing.

Second, there is also a direct correlation between financial weakness and bank loan applications, suggesting that firms with a lower equity to debt ratio tend to avoid bank financing. Presumably this is because banks tend to see the equity to debt ratio as, perhaps, the single most important indicator of willingness on part of the owner in applying for bank financing. A low equity to debt ratio may be perceived by bankers as the owner's unwillingness to commit to the venture. Therefore, firms with a low equity to debt ratio will probably in many cases not even search for bank financing, as they can be reasonably certain that they will be rejected if they do so.

Construct validity

Technology development does actually signify the rate of development as it leads to new investments in new machinery and equipment. The construct consists of one indicator, which is the perceived need for new investments in new machinery and equipment. The construct is based on a 1 to 5 scale, ranging from very small investments needs to very large.

Growth pressure actually means the perceived

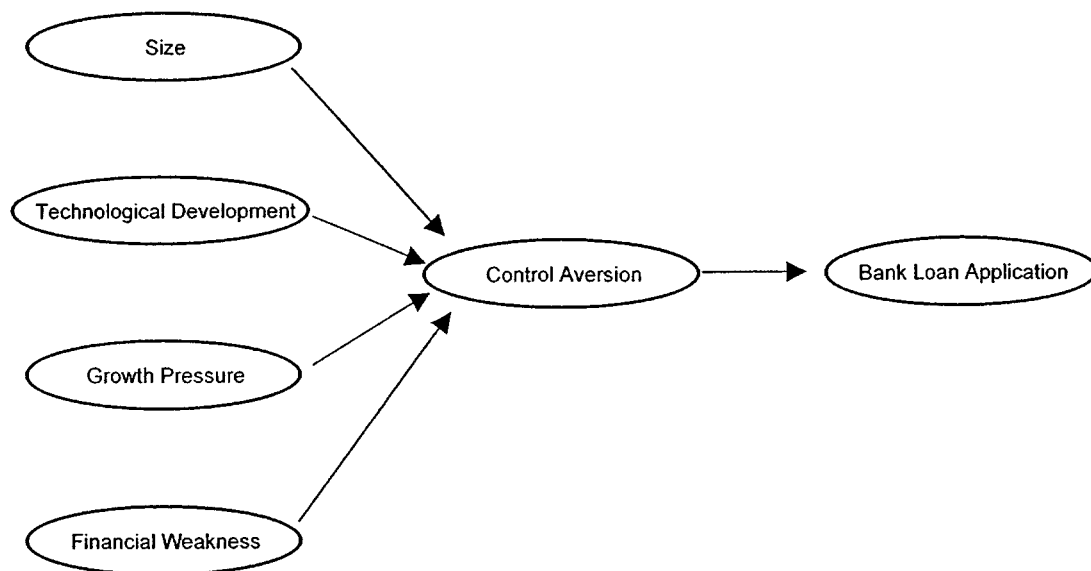


Figure 1. The original model on the effects of coercion on financial search behaviour.

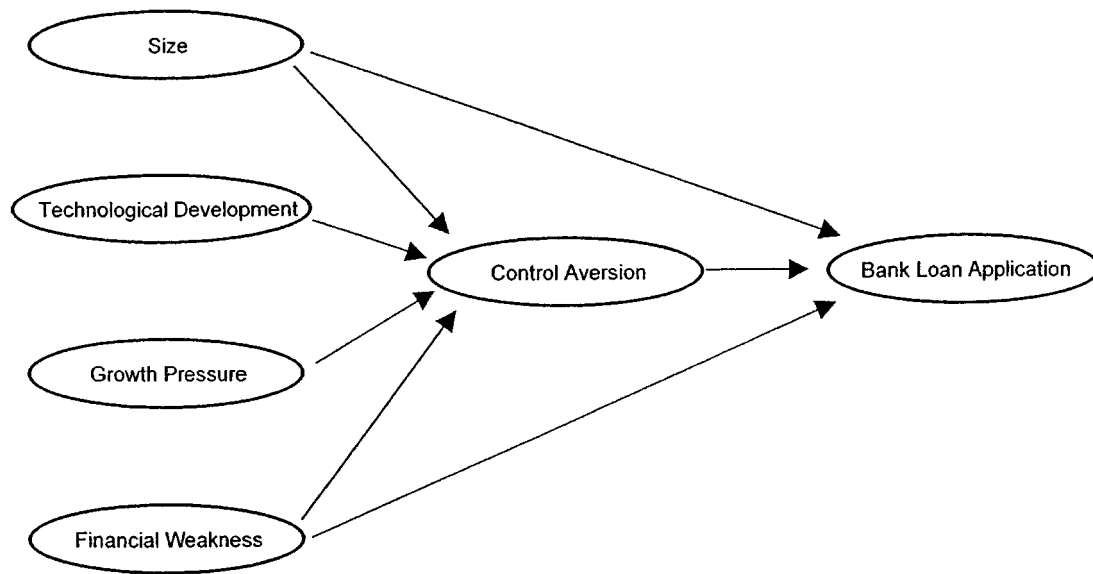


Figure 2. The respecified final model on the effects of coercion on the search for external financial.

need to grow in order to survive in the chosen field. It is measured as the perceived importance of expanding the number of employees to survive. Thus, the concept captures growth in terms of number of employees, rather than wealth. The construct is based on a 1 to 5 scale, based on a statement that “growth is necessary for the survival of the firm”, and the options ranging from do not agree to fully agree.

Size is also a single variable construct. The indicator is the size as measured by the number of employees within the firm. The construct is

based on the actual number of employees in 1997.

Financial weakness is a direct translation of the equity to debt ratio. It measures the degree to which a business firm can handle long term financial difficulties. The indicator is a strict measure of the actual equity to debt ratio. The construct is based on four separate classes: less than 10 percent equity to debt; between 10 and 20 percent equity to debt; between 20 and 30 percent equity to debt; over 30 percent equity to debt.

The control aversion concept consists of two

TABLE II
The constructs and their indicators

Constructs	Indicators	λ	R^2	t
Technological development	Perceived need for investment in machinery and other equipment	1.0	1.0	
Growth pressure	Perceived importance of growth to survive (in terms of number of employees)	1.0	1.0	
Size	Size of firm in terms of number of employees	1.0	1.0	
Financial weakness	Equity to debt ratio	1.0	1.0	
Control aversion	Primary perceived reason for introducing new owners is capitalisation.	0.45	0.20	4.23
	Perceived benefits associated with new owners.	0.43	0.19	4.16
Bank loan application	Actual application for a loan at a bank	1.0	1.0	

indicators. The stronger indicator supports the view that external financiers are primarily needed to provide capital. The somewhat weaker indicator shows the degree that external financiers generally are a positive influence on the development of the firm. The constructs are based on a 1 to 5 scale. The actual questions are “the primary reason for accepting external financing is the capital they provide”, and “external financiers are on the whole good for the development of small and medium sized firms”. The statements range from do not agree to fully agree.

The Bank Loan Application construct measures whether a loan application to a bank has actually been made by the firm. It is, therefore, obviously also a single indicator construct. The construct is based on a yes or no question.

Results

The results indicate that not only is the nomological validity secured through an acceptable fit, giving a *p*-value of 0.10, this indicates that the entire model holds together. In addition, the concepts seem to be strongly correlated within the model, providing discriminant and convergent validity. Technology development is correlated to control aversion (coefficient -0.32 , *t*-value -3.49), indicating the effects of technological turbulence on attitudes. In highly turbulent industries, firms need to remain open to outside influences if they are to survive. Attitudes seem not to be primarily dependent on the type of owners operating in industries, as much as on the character of the industry itself.

Financial weakness also seems to be strongly correlated to control aversion (coefficient -0.49 , *t*-value -3.46). Not surprisingly, this is a negative correlation, meaning that the weaker the firm is, the more in need of external financing it will be. Growth for survival is also strongly correlated to control aversion (coefficient -0.37 *t*-value -3.74). This is in line with our hypothesis, which states that the greater importance the firm places on the growth in the number of employees, the less likely it is to be averse to a change in control. Size is the final measurement we have used for the forces shaping the perceptions of small and medium sized enterprises; the fourth hypothesis has also been validated (coefficient -0.43 , *t*-value -3.21). In

accordance with our hypothesis, the analysis shows that the larger the firm, the less control avert it is.

The final relationship, that between control aversion and bank loan application, is also supported in the model (coefficient -0.67 , *t*-value -4.34). This shows that changing attitudes do in fact lead to an actual change in behaviour. Not only do the respondents claim that external financiers are interesting as an option, they also actually carry out their intentions. It also provides evidence that, since financing is the goal rather than a general need for competence, for instance, they seek financing that reduces the amount of control yielded. This is an indication that the pecking order theory actually works.

Finally, it is interesting to note that the two indicators in the control aversion concept support the general hypothesis that control aversion may in fact shape attitudes, but only so far as to consider external financiers to be primarily providers of capital. The notion that external financiers are needed foremost to provide capital is strongly supported (coefficient 0.45 , *t*-value 4.23). The statement that external financiers, in general, have a favourable influence is weaker, though still relevant (coefficient 0.43 , *t*-value 4.16). Again, this supports the idea that the pecking-order theory is suitable for this type of situation.

Discussion

The basis for this article is that information asymmetry characterises relationships between SMEs and their financiers. The asymmetric relationship manifests itself in control aversion, as entrepreneurs feel that their financiers pose a threat to their control of business operations. Control aversion may turn out to pose a long term problem for the firm, as it prevents working relationships with external financiers. In this article we have focused on some of the reasons why entrepreneurs would consider abandoning their control averse stance in favour of a more open-minded approach to external financing. In it we have isolated four different reasons why entrepreneurs choose to accept external financing.

The theoretical implications of this article is that while information asymmetry, control aversion

and pecking-order all seem to be viable terms, the principal/agent metaphor may not be the best one available. The principal/agent metaphor tends to emphasise the financier as the principal and the entrepreneur as the agent, while in reality the world is much more complex. At the same time the entrepreneurs do see potential financiers as principals, but they also are prepared to change attitudes if need be.

As was argued earlier policymakers tend to see SMEs as creators of job opportunities in the future. At the same time it is evident that there are SMEs that can not, or will not, grow. It is the case the policymakers could be advised to consider where they place their efforts to stimulate the economy. Rather than general measures for the entire SME community, it may be wiser to concentrate on the groups that need finance, but suffer from information asymmetry. We suggest two complementary steps for policymakers:

There is a need to consider why control aversion and the pecking-order still is such a large influence in the lives of SMEs. The research presented here suggests that at least in Sweden, there is a widespread scepticism towards external control. This prevents many firms from financing their operations, from growing, and therefore also from expanding their number of employees.

In supporting SMEs financially, in one form or the other, it is probably best to support firms that suffer from information asymmetry, especially if they are active in the conditions that have been described above. This means that support should be directed towards small firms that are engaged in industries marked by rapid technological development, need to grow rapidly in order to survive and that have a poor financial leverage.

As for financiers and entrepreneurs it is obvious that the need to overcome information asymmetry is the basic goal. Financiers need to realise that they tend to intimidate SMEs, and control aversion is a real problem. They also need to make better assessment of small firms that are engaged in industries marked by rapid technological development, need to grow rapidly in order to survive and that have a poor financial leverage. Entrepreneurs need to assess the industry they live in, and decide if it is worth the price of remaining control averse. If the entrepreneurs are to grow, they must become less so in any case.

There are, however, significant limitations with this study. Firstly, this is a study of Swedish firms, and may not be easily generalised to other countries. Secondly, the statistical material is not as solid as one would want to, considering the single constructs for instance. Thirdly, it may be argued that there is a large step to take from the model to the implications cited above. We can not satisfactorily dismiss these limitations, instead it is up to the reader to decide.

Hopefully, this article has triggered some thoughts as to how to explore information asymmetry, control aversion and pecking-order in other contexts as well. As the "new economy" takes shape, there are a multitude of questions to ask.

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