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A Literature Review and Industry Analysis of Informal Investment in Canada: A Research Agenda On Angels

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EXECUTIVE SUMMARY[1]

The Porter′s Five Forces Model of Industry Competitiveness was used to evaluate the status of the angel investment industry. The Model details the five competitive forces acting upon the players in an industry -- in this case, angels. The findings are summarised as follows.

Suppliers:

Government actions can impact on the number of angels supplying capital to the entrepreneurial community though it is widely felt that governments could do more.

General economic factors such as interest rates contribute considerably to the desirability of informal investing.

There is evidence of significant informal investment in poorer pockets of the country.
During times of significant financial market distress, informal investing still seems to be high.

Rivalry:

The protective and secretive sentiments of trades associations imply that there are not enough angels to meet the demands of their local entrepreneurs.

Angels report not being able to find enough demand (good entrepreneurs) to satisfy their supply of capital. The industry and market are at odds on this matter.

Angels have not taken advantage of information technology to learn about the actions of other angels in their own industry. This suggests informational inefficiencies are still at work. As they are unaware of one another's activities, rates of return, investment criteria and venture opportunities, there is little room for rivalry.

New Entrants:

It takes a significant amount of after tax capital to invest in the ventures of entrepreneurs, but the barriers to entry are not as high as some studies would suggest.

Though it is felt that the detailed and specialised knowledge, and learning and experience curve effects would be significant, the presence of many novice investors suggests informal investors do not feel they need to be over cautious.

Business introduction networks represent significant efforts to bring entrepreneurs and informal investors together, but the formula has yet to be perfected.

The poor capacity for most angels to exit as well as the poor returns associated with exits represents

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[1] A. Ellen Farrell is an Assistant Professor in the Frank Sobey Faculty of Commerce at Saint Mary's University. Canadian angels are the subject of her doctoral dissertation. She is studying at the School of Finance and Management at the University of Nottingham. She gratefully acknowledges the helpful comments of Professor Mike Wright, Dr. Carole Howorth, Dr. Harvey Johnstone and Cindy Joe.

some of the industry?s most significant barriers to overcome.

More encouragingly, the presence and apparent growth of serial, and portfolio informal investors as well as corporate investors gives cause for optimism.

The growing understanding that angels are borne of entrepreneurs fuels more optimism as these areas gain research interest.

Substitutes:

Family and friends may be difficult substitutes for entrepreneurs as family and friends may have been exhausted as a source of capital first, or they may be uneasy observers, too close for comfort for the needful entrepreneur.

Venture capital, conversely, is often desired by entrepreneurs, but there are very few who meet the exponential upside potential and strict venture capital requirements.

Debt capital is generally a poor substitute for start-ups and seed stages of finance as the historical ability to pay or asset based collateral are not present. Government-assisted programs have widened the net.

The theory of high- and low-ability entrepreneurs may determine the sources entrepreneurs seek and their ability to access substitutes.

Power of Customers:

Entrepreneurs who have found angels may have substitutes, but will probably incur extremely high switching costs to unburden themselves of the angels.

Investee entrepreneurs have little in the way of good information about other entrepreneurs? situations because of their loose association with other entrepreneurs and they also have little way of acquiring knowledge about angels? prices, costs and products.

High quality entrepreneurs may have discretion over whether or not to work with an angel, but because angels are thought to be the last source of capital for many entrepreneurs, the investees cannot exercise considerable power after the deal has been consummated.

One area where investees can exercise considerable power over their financiers is when they are in a position to negate or refuse to execute harvest strategies which benefit the angel.

Research Recommendations:
Increase support for ?deal generation? research. Deal generation represents the actions in which angels engage to find entrepreneurs. It is the least understood aspect of the informal investment process. Informal informants and business introduction networks are only two components of a much larger picture which is, yet, not understood.

Develop and support research in support of ?exit process? discovery. Exits are crucial to the angel investment process. They represent the likelihood and potential for payoff. We are still very far away from having a well rounded understanding of how angels pursue exits, if they do, the primary methods of exit, and the details of the relationships between the entrepreneur and the angel five to seven years hence.

Better exit opportunities, better exit returns and better exit relationships will undoubtedly improve repeat angel activity.

Develop an understanding of the heterogeneity of angels particularly the differentiation between novice and habitual informal investors. Novice angels invest once and may or may not invest again. Habitual informal investors have already decided to re-invest. The deal characteristics suggest there are considerable differences in attitudes, motivations and behaviours between the two. Novices make considerable contributions collectively and generally invest a greater range of funds. Habitual angels are important because their individual contributions over a period of time can be substantial. Research in this area also highlights successful ?corporate? angels who are associated with this category.

Pursue informal investment within the context of other disciplines that have acquired more scholarly attention such as entrepreneurship. The former entrepreneurial role played by a significant number of angels is a characteristic that is central to understanding angels. Other theoretical disciplines such as finance, psychology, and economics contribute to a more complete understanding.

Focus on the tax implications of selling shares profitably. Regardless of the success or profitability of the investee company, angels do not have success investment portfolios unless the balance of their returns is positive. There are growing indications that about one-third of investors suffer at least one full loss. Favourable tax treatment on the exit side may encourage more investment by improving overall returns.

Encourage research depth and breadth to allow bases for comparison within the same research design and sampling methodology. When research efforts narrowly define and isolate small groups for study, the ability to make comparisons is reduced because research designs and sampling methodologies differ. When research which seeps across the boundaries between angels and family investments, angels and formal venture capitalists, habitual angels and novices, angels who have been entrepreneurs and those who have not been entrepreneurs, rich comparisons can result.

Family investments need to be included in the angel ?literature.? The notion that family and friends are less than arms? length and should not be included in the angel literature is limiting. Research is now beginning to suggest that the best investments are made to entrepreneurs who are known to the angel prior to the investment. Eliminating family investments limits the search for understanding.

Develop research designs which include more representative sampling methodologies. When research is commissioned, funds need to be devoted to ensure sampling methodologies permit more inference since Canada?s large geographic expanse does not allow us to easily draw conclusions from one pocket of angels to another.

Expand the policy focus to ?investor focussed,? not just ?entrepreneur-focussed.? Current interest emphasises the entrepreneurs? search for capital, the entrepreneurs? difficulty in finding angels, the entrepreneurs? need for assistance in developing business plans, and finding ways to identify and meet angels. In order to help angels, focus on angels in their entrepreneur/angel relationship.

Increase the volume of commissioned work. Aside from anecdotes about angels and the two reports since 1995 (Farrell, and Lionaise and Johnstone) all of the original research is relatively old. The industry needs new insights to advance. Now that there is an appreciation for the magnitude and nature of the angel phenomena, it is reasonable to pursue why in a more current context.

Table of Contents

1. INTRODUCTION

The purpose of this study is to present a review of the existing information which has been conducted in Canada and about Canadian angels. This literature review presents the existing Canadian research and commentary in a framework which:

- Encompasses elements of the industry and its competitiveness;
- Encompasses the decision making process typically used by formal venture capitalists;
- Highlights notable regional variations based on geography, sociological or economic factors, and Recognises and accounts for different types of angels.

The Porter's Five Forces Model of Competitiveness is a management tool used to systematically analyse the competitive forces within an industry. The collection of individuals making informal investments cannot yet be called an industry. In order to develop functions, processes, understanding and policies that would allow angel investments to be referred to as an industry, more understanding is needed. By analysing this fledgling industry using standards that are normally applied to growing and mature industries this study aims to highlight the gaps in current knowledge. Over the eight-week period of this study I have attempted to identify propositions and advance tentative hypotheses which will reduce these gaps and promote understanding and the interests of informal investors.

For context, in many places, explanation is addressed by comparing elements or effects as they appear in the *formal* venture capital industry. In particular, reference is made to various stages of the decision making process as originally outlined by Tyebjee and Bruno (1984). Generally, the stages of investment include deal search and generation, screening, evaluation and due diligence, deal structuring and negotiation, and post-investment activities such as monitoring and exit.

There are expected to be differences between various regions in the country. These differences have been largely accounted for in the works of the primary large scale studies which have been conducted to date. These studies include the Ottawa-Carleton area by Riding, Haines and others at Carleton University, Quebec City and area French angels by Suret, Arnoux and Dorval at the University of Laval, the Cape Breton area by Lionaise and Johnstone at the University of the College of Cape Breton, and the Atlantic Region by Farrell at Saint Mary's University. Amit at the University of British Columbia represents western Canada. As the number of large scale studies is small, the reader can infer the region by the authors as they are cited during the text of this report.

Lastly, a variety of differing types of angels have been considered. Those referred to include family angels, arms - length angels, large-investment angels, small-investment angels, habitual angels, novice angels and corporate angels. As an exploration of our knowledge is the purpose of this report, it is not wise to define our perimeter too narrowly as a breadth of focus gives us room to make comparisons and explore subtle differences and similarities.

Readers should be advised that there is considerable literature about informal investors beyond the work conducted by and about Canadians. Since much of it is developing from theory arising from disciplines such as psychology, economics, and management, the reader is advised to consult the wider literature for a full account of developments in the field of informal investing. As requested, the Canadian journalistic and academic literature has formed the basis for the work presented here. Occasionally, reference is made to notable developments in the literature beyond Canadian researchers though exhaustive efforts have not been made to document each of these sources. These efforts are conducted in a manner that highlights findings, identifies areas that have not been explored, and suggests new directions for research.

The study proceeds with the following format. First, the industry is examined using typical industry profile characteristics such as investor and investment characteristics, market size, consolidation, and investment preferences (Section 2). This is followed by Porter's Five Forces Model of Competitiveness analyses (Section 3). Porter's Model of Competitiveness (Porter 1980) is a powerful, systematic tool for examining the forces at work within an industry and has been used to study the formal venture capital industry (Wright, Robbie and Chiplin 1997). Systematically examining customers, suppliers, rivalry, new entrants and substitutes develops understanding about informal investment by comparing it to standard industry scrutiny. Gaps in our knowledge are outlined (Section 4) and recommendations are made for future research. The Bibliography includes works associated with the subject, but not necessarily cited. The Appendices outline sources convened, lists of informal investors and investees, and an index. An extensive collection of sources directly related to the Canadian context accompany the report. Their bulk is significant and so they should be regarded as support reference materials.

2. INDUSTRY PROFILE

Informal venture capital investments are best described given the following conditions:

- Individuals investing their own funds, not the pooled or collective funds of others;
- Sometimes play an active role by assisting entrepreneurs in some aspects of management and finance;
- Is not the investment of the initiating entrepreneur;
- Is long-term, or patient, often having no predetermined terms of repayment;
- Often assumes unsecured, highly illiquid risk;
- Generally participates in ownership so their return is tied to the ventures' performance; and
- Is made by an individual who is not an intermediary, nor paid a salary or commission to perform the investment activities.

Angels are individuals who engage in informal investing. Informal investors, or business angels, make risky, personal investments into the ventures of other entrepreneurs. With little formal interaction with one another, the activities of angels cannot yet be considered an 'industry.' However, their importance in the landscape of finance for seed, small and medium sized enterprises is being recognised. Hence, our growing interest regarding their activities suggests that more systematic analyses are needed. By using the industry competitiveness model, our insights about angels are explored to find what is, and what is not, known.

Methodology is important to the study of angels. It is important because the invisibility of informal investors makes it hard to define precisely their population parameters. In most of the following studies, two primary methods of sample selection have been used, snowball samples and random samples. Snowball samples are convenience samples that identify potential constituents and then draw on those respondents to find more respondents. In these studies, the non-random nature of the sample selection makes extrapolation of the findings to the general population of angels impossible. Riding, Haines, Duxbury, DalCin, and Safrata (1993) and DalCin (1993) employ similar methods of snowball samples. Careful judgement should be used in attempting to draw conclusions regarding the wider population of angels when convenience samples have been used.

Random sampling is at the heart of statistical analysis. It is a necessary criterion for extrapolation to the greater population. Random sampling means that each member of a population has an equal opportunity to be selected. In angel research, the difficult part is identifying the population. Farrell (1997) argues strongly for more methodologies that are based on random samples of databases which attempt to define the population. She argues that the characteristics used to create convenience samples are often already skewed since the criteria are based on the results of other convenience samples. Her work employs methodologies which focus on random samples of new or recently incorporated firms and identifies informal investors from surveying directors of these firms. The companies and directors are sought from the provinces incorporation records and are randomly selected. Lionaise and Johnstone (1999) use a similar process.

There is another important argument for attempting to generate more representativeness by random sampling. It is possible that habitual angels (more than one investment) will be over-emphasised when employing some types of convenience samples. Since snowball sampling requires sample members to identify other potential respondents, habitual angels may be more likely to identify other habitual angels because, as frequent investors, they may be more well known. Novice investors, will be less likely to be identified as subsequent sample constituents because they are less well known. Novices will, therefore, be under-represented.

A third method uses capture/recapture statistical analysis, methods employed in biological population estimation Riding and Short (1987). Experimental and theoretical treatments such as these are important to the development of the field and should be encouraged.

2.1.1 Personal Characteristics

A review of earlier findings and comparisons between the US, Canada and the United Kingdom can be found in Mason and Harrison (1992). Attempts to categorise angels have taken many forms. Gaston (1989) developed a 10-type category (U.S.), Stevenson and Coveney convened six types including those who had never invested and those which were formal venture capital (1994). Riding (1998) wrote about independent, archangels (syndicate leaders), and corporate angels (discussed later). Most of these categorisations employ investment characteristics as the distinguishing criteria. Farrell (2000 forthcoming) has developed a comprehensive, two-criteria typology based on behavioural characteristics. Using the numbers of investments and the exit patterns, her typology divides novice investors into two categories: first-time novices (those who intend to invest again) and one-time novices (those who do not intend to invest again). Habitual investors are divided into: serials (habituals who exit one investment before engaging in another), and portfolios (habituals who hold a number of investments at once).

The literature world-wide has attempted to identify personal characteristics of the persons who conduct such activities. The most significant effort to date, regarding Canadian informal investors (Riding, Haines, Duxbury, DalCin and Safrata 1993), is summarised as follows in Riding and Orser (1997):

> Angels feel that they personally can influence outcomes through their own ability, skills or effort.
>
> They have very high needs for achievement and dominance. That is, they seek to do things better or more efficiently, to solve problems, or to master complex tasks. People high in need for achievement like to put their competencies to work and will take moderate risks in competitive situations. High need for dominance means that angels like to control other people and external events.
>
> They possess moderately high needs for affiliation or the desire to establish and maintain good relations with other people. Yet they also require autonomy and the desire to be able to work independently.
>
> They are motivated by subjective feelings that result from performing well: hence, they are highly involved in their work and their investments.
>
> Finally, relative to other people, angels report high levels of perceived stress and they cope with this stress by working harder (p. 119).

There is an assumption that wealthy areas and populations harbour more angels. Riding et al. (1993) used the wealth of informal investors from their study to calculate estimates of investment potential. They used wealth and income as proxies for the number of potential angels and then extrapolated the rate of wealth and income from the study to the population in Ottawa-Carleton. Informal investors in the

Riding (1993) study had family incomes in excess of $175,000 and a personal net worth of $1.3 million. The prevalence of angels in areas less economically endowed than the Ottawa-Carleton region suggests that extreme wealth is not necessary.

These characterisations show angels to be self-sufficient, dominant, like to maintain relationships yet work independently too, are motivated by success, and engage in enough activities to feel stressed. In many ways, attempts to identify psychological constructs mirror researchers' efforts to classify entrepreneurs. In the entrepreneurship literature, there is widespread agreement that the results of the psychological evaluations often mirror those of other successful non-entrepreneurial people; therefore, other disciplines must be pursued in attempting to define and possibly prescribe entrepreneurs, and by extension, angels (Gartner 1988). Conditions of wealth have been previously assumed, but community-minded orientations may increase the propensity and activity of angels in areas where significant wealth is less evident.

2.1.2 Investment Characteristics

Much of the significant work in Canada to date has been highly descriptive and has focussed on estimating numbers of angels, the amount of angel activity, and investment characteristics. The 1993 nation-wide study found informal investors have family incomes of greater than $175,000, personal assets of more than $1.4 million and a personal net worth of more than $1.3 million (Riding et al.). High-family income and high-personal net worth individuals were seen as good candidates for "public policy targeting (p. 14)" for informal investment initiatives. Nation wide, more than 85% of the deals identified in the study were for sums greater than $100,000. Most investors obtain little income from their investments, however, a third receive more than 50 percent of their income from their risk capital investments (Riding et al. 1993). Ninety-eight percent of the respondents are male. The largest proportion were in the 36 - 50 year age category making these respondents, on average, younger than those from studies conducted in other countries. Seventy percent had a university degree or graduate degree.

During the past two decades a variety of studies have been conducted in the Ottawa-Carleton area as a result of the interest of the group of researchers at Carleton University. In the Ottawa-Carleton region, respondents are males about 50 years of age, well educated with university degrees and professional designations, hold senior managerial and administrative positions as well as entrepreneurs and lawyers; have annual incomes in excess of $100,000 and a personal net worth of more than $1,000,000 (Riding and Short 1987a). With the exception of gender, Riding and Short's (1987a) study in the Ottawa-Carleton area showed the profile of informal investors to be similar to profiles in other areas, before and since their work . DalCin et al. (1993) reported investment averages of more than $100,000.Riding and Short (1987a) estimated that about five percent of wealthy, self-made individuals in the Ottawa Carleton area are active angels. Were that so, wealthy, high-income families would represent about 1,500 to 1,750 potential angels.

In a breakout of Riding et al.'s (1993) national report for Atlantic Canada, angels were identified as successful businessmen, 84% of whom had founded or was top manager in a start-up, had a net worth of $1.3 million and an annual income of $177,000. Seventy-three percent were university educated (30% had some graduate school experience). They accepted one deal in 40 and expected returns of 105% over 4.25 years (18.4% annualised). Seventy-three percent were co-investments, and 29% used active personal searches for their opportunities (APEC 1994; special break-down of Riding et al. 1993 study material).

Suret, Arnoux and Dorval (1995) report that Quebec francophone angels share many of the same characteristics as outlined in studies previously conducted. Average investments were less than $100,000 in 68% of the cases. The Quebec angels' profiles, investment activities, methods of investment selection and expectations are unremarkable compared to others reported previously.

Farrell's (1998) Atlantic Canada entrepreneurs reported first investment averages of $78,000. When 'normalised[1]' to account for a small number of very large investments, the average first investment decreased to $22,000. In examining those who had invested more than once, second investment averages are $18,000 and third investment averages climb to $26,000. This study found that fully one-third of these were made to a family member and shows an incidence of female investors averaging 10%. Forty-six companies (15% of the sample) reported $5,303,500 in non-entrepreneurial investment capital suggesting an average of $115,000 per company was invested by an average of 2.2 investors per company (1998).

In Cape Breton, angels are middle-aged predominantly between the ages of 35 and 65 with the largest group between 46 and 55 (Lionaise and Johnstone 1999). The activity of the Cape Breton group showed that 37.5% invested more than once a year while 50% invested once every two to three years. The amount of experience as angels is a new characteristic (Lionaise and Johnstone 1999). This identifies the length of time the angel has been engaged in informal investments. The maximum investor experience was 24 years with an average of 13.6 years. Forty percent of the Island's angels had a maximum educational level of high school and 47% had an undergraduate degree or diploma. In the economically challenged area, there appear to be more angels operating with less education than reported in other studies. As a more isolated area, the level of education in Cape Breton might well be expected to be very different than the highly 'professional' environment of the nation's capitol[2].

The angel phenomena is essentially local as the ability to track investments in far flung regions is near impossible, however, Canadians tend to invest further from home than other nationalities (Riding et al. 1993). Perhaps, related to our significant geography, Canadians have a greater physical area to cover.

2.1.3 Industry Size Estimates

As time passes, estimates increase greatly the amount of angel activity in Canada and the regions. The earliest reported Canadian study of informal venture capital estimated informal investments of $9 million in 1980 up to $27.3 million annually in 1986 (Languedoc 1989)[2]. In 1993, DalCin et al. estimated the rate of investment in Canada to be between $200 million and $400 million annually. In 1998, Riding is attributed with indicating that Canadian firms are the recipients of $1 billion a year (Gordon 1998)[3]. The more than one hundred-fold increase can be attributed to the growing understanding of the angels' importance, the greater numbers of angels than previously thought, and improved methodological approaches. Estimates of the amount *available* are reported as high as $15 billion annually (Bochove 1993).

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[2] Again, methodology is important; these results could be caused by the nature of the angel selection method. When we look to middle-aged, wealthy, high-income angels operating in relatively wealthy areas of the country who are identified by snowball and convenience sampling techniques, we find more educated, wealthy, high-income angels. When we survey angels identified by more random techniques (e.g.from incorporation registration records), we cover a greater spectrum of the possible angel population.

[3] Denzil Doyle, former CEO of Digital Equipment Canada, who has made a number of informal investments feels the estimate is less than $100 million ("In my opinion" 1997).

Only a decade ago, an exhaustive study of private venture capital activities in Atlantic Canada failed to include "the direct funding activity of love money and informal investors (in the report)... due to the impossibility of assessing the amount involved, although it was determined with confidence that the role played by informal investors was far less important than observed elsewhere by others" (Gadbois 1991, p. 1). At that time, the 'confidence' with which informal investors activities were ruled insignificant was partially based on: 1) the lack of participation in Small Business Development Corporation (SBDC) loans or other provincially sponsored venture capital companies[4] (PSVCC) by those who identified themselves as angels, and 2) that the 'cluster' behaviour of angels would have made them hard to miss in the context of such an exhaustive study[5]. Hence, for a variety of coincidental and methodological reasons, angels were thought to be insignificant.

Three years later, a report issued by the Atlantic Provinces Economic Council (1994) suggested that informal investment is more widespread than commonly assumed. At that time, the Atlantic Provinces Economic Council's (1994) estimated informal activity in the Region at between $4 and $10 million. This estimate was based on 35 and 70 deals in the range of $155,000 per deal. Furthermore, informal investing had a better opportunity to gain ownership positions than formal venture capital (in Atlantic Canada) due to the local nature of angels' interests and the common associates and informants they share. Later, using a more representative sampling methodology, Atlantic Region (four province) estimates ranged between $25 and $85 million annually (Farrell 1999). Her most conservative estimates suggest that 525 angels fund 250 companies annually.

Dal Cin et al. (1993) estimate the Ottawa-Carleton informal investments to be $2 - 3 million. Four years later, in a report to the Ottawa-Carleton Economic Development Corporation it was reported that the *un*tapped capital in the area amounted to $20 million. Between 100 and 150 *active* angels were accompanied by 200 - 300 *potential* angels (Aboud, 1997)[6].

Suret et al. (1995) estimate that $232 million was conducted annually in the province of Quebec which has the capacity to double with more suitable projects. They estimate 2,175 represent the pool of angels from which 840 projects a year are invested. A total investment of $1.36 billion represents angels' capital, $300 million more than the total amount of formal venture capital invested in the province at the time.

2.1.4 Investment Preferences - Stage and Sector

The stages of investment where private equity capital can assist range from seed, start-up, expansion and mezzanine stages. Ventures need funds at differing stages of their development and informal venture capital investment and formal venture capital investment serve different stages. Industry observers extol the role of *in*formal venture capital investors as complementary to formal venture capital investors - not competitive - since the markets they serve are largely different. Formal venture capital has been

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[4] SBDC was a provincially-based organisation providing loans to small business. The PSVCCs were provincial organisations established in many provinces and territories where private funds were matched by government funds and given attractive terms in order to encourage private equity placement. See Gadbois 1991.

[5] In more recent light, we acknowledge that angels do not necessarily cluster. Groups of angels are often in clusters as a consequence of the prevailing method used to locate angels such as convenience and snowball sampling. That is to say, if they are sought in clusters, they are found in clusters.

[6] As reported in Peterson, R. (1998). How is entrepreneurship different in Canada? *The Financial Post,* March 4.

criticised in Canada and elsewhere for gravitating to the more profitable management buyouts and buyins and later-stage deals. Informal investment has largely been relegated to the seed and start-up phases of venture growth. Quebec, however, reports that only half of their informal investment deals (53%) are in the pre-start-up (seed) or start-up phase (Suret et al. 1995).

In terms of preferred sectors, the formal venture capital industry in "Canada has also put an emphasis on technology which accounted for 50% of 1992 investments" (Venture Capital in OECD Countries, 1996). Later, US reports of Canadian formal venture capital activity indicated that the technology sector continues to reign. In 1997, 63% of the 794 companies financed were technology-based businesses securing 67% (Cdn $1.2 billion) of total disbursements ("Canada's institutions return to the venture market" 1998).

There appears to be less of a technology focus in angel investments. As well, the focus of angels' preferences for investment in industry sectors varies significantly from region to region. Maritime angels prefer the service sector and construction investments while Quebec prefers industrial and consumer manufacturing, natural resources and real estate (Riding et al. 1993). Ontario's preferences are in industrial, consumer and high tech manufacturing, natural resources, real estate, service sector and the retail and wholesale (more so than financial, service or construction) while Western Canada is highly focussed on natural resources and real estate. Alberta prefers the energy industry (Riding et al. 1993). In Cape Breton, more specific information indicates informal investors prefer to know about the industry in which they will invest (Lionaise and Johnstone 1999).

Technology has dominated formal venture capital investments, but it plays a less active role in the informal market[3]. Francophone angels had 20% of their investments in high technology investments (Suret et al.1995) and Ottawa-Carleton seem to produce many high tech ventures. As the technology sector grows, technology entrepreneurs will obtain experience and success and informal investment in the sector will be expected to grow (Milburn 1999). As a type of evolution, the wait-and-grow process is not conducive to the immediate or present technology investment situation.

3. PORTER'S FIVE FORCES MODEL OF INDUSTRY COMPETITIVENESS

Industries differ widely in their economic, profit and competitive characteristics. Retail differs from manufacturing which differs from financial services which differs from information technology. Even the economic and competitive traits of formal versus informal venture capital differ. The Porter's Five Forces Model of Industry Competitiveness is a tool used to systematically investigate the main sources of competitive pressure. The five forces are:

The rivalry amongst competitors in the industry - how angels compete with one another;

- The ease with which customers can readily make use of substitute products offered by other industries - are entrepreneurs lured easily and attractively to other sources of finance;
- The threat and potential entry of new competitors to the industry - how hard or easy is it for other angels to enter the field;
- The bargaining power and leverage of suppliers - the impact that crucial elements of supply have on angels; and
- The bargaining power and leverage exercised by customers - when angels have selected an investee, how much power can the investee exercise.

3.1 Power of Suppliers of Inputs

In the Porter's Five Forces Model of Industry Competitiveness, suppliers are those organisations that provide essential factors in order for industry members to conduct their business. Suppliers to an industry can exert power if their forces are stronger than individual industry members. This condition is often associated with limited supplies, or few suppliers. When suppliers' actions can severely limit the industry, or when the actions of suppliers are crucial to the industry's performance, then suppliers play a powerful role. However, when an industry survives and thrives despite adverse actions by suppliers, suppliers do not have a powerful role. In the fledgling angel industry, matters of supply relate to the provision of capital to angels, and governmental, economic and entrepreneurial forces that encourage informal investors to invest.

The provision of capital to the investors is very different between formal and informal venture capitalists. Formal venture capital funds investors hire general managers who execute investment decisions and who are conduits between the funds providers and the investees. Therefore, the supply of funds to the general partners is an important source of supply. This scenario necessitates agency concerns (the issues surrounding the actions of agents on behalf of principals) between the funds provider and venture capital general managers, as well between the venture capital general manager and investee (which is more commonly discussed in the literature[4]). The supply of funds to formal venture capitalists can be affected by their actions. However, there is no separation of the funds provision and decision making roles for angels and so there are no inherent agency concerns raised. In the informal investment industry, angels perform the dual role as both the funds provider and the executor of the investee transaction. Therefore, the supply of funds and related agency concerns are not issues for discussions relating to informal investors.

A number of other important factors warrant discussion in this section. They include government incentives to encourage informal investment, general economic conditions such as wealth and interest rates, and the specifics of the deal search and decision making characteristics as they related to the supply of proposals from which to select. (After the investor invests, the entrepreneur becomes the customer - the recipient of the investor's product - dealt with in a later section on the Power of Customers.)

3.1.1 Government Interventions & Incentives

To encourage investment, governments can act in two ways. They can encourage investment by actively intervening and supplying venture capital, becoming intermediaries and training entrepreneurs. Or, governments can incite individuals to action by providing tax breaks and eliminating income tax (Clark 1994). Canadian governments have engaged in two classes of activities; they have employed efforts to encourage business introduction agencies, and they have designed provisions to protect and encourage investors and entrepreneurs, and they have applied tax incentive programs. Neither has been reviewed conclusively. At times, securities legislation, implemented to protect investors, seems to act like an impediment. Furthermore, it is not yet clear that tax initiatives, designed to encourage individuals to invest, act as motivation for investors. Despite the questionable efficacy of recent policies, these methods are preferred over direct handouts which are seen as more political manoeuvres ("Best Way to Help" 1994).

In the formal venture capital industry, Canadian tax incentive schemes are instrumental in raising billions of dollars of formal venture capital funds (Mayers 1996)[5] though the funds are reported to have suffered from passive investments, exit problems and political and bureaucratic agendas (Harvey 1995). More money in these formal venture funds implies that additional worthy venture projects would be funded. Criticism has been levelled at the program, however, because investments have been made in public companies (Mayer 1996) and other larger firms. Regulations in the 1999 Federal Budget provide incentives designed to encourage labour sponsored venture capital companies (LSVCC) to invest in businesses with less than $2.5 million in assets (Canadian Institute of Chartered Accountants 1999). As well, others criticised the revenues lost to governments particularly during high deficit periods ("Labour funds need tax breaks" 1995). As of 1999, Canadians are able to take advantage of a 15% federal tax credit for buying shares up to $5,000 in a LSVCC.

The intention of similar tax initiatives directed at informal investors is to encourage and develop the informal investment industry. These tax systems provide direct tax relief to the investors in the year(s) following the investments reducing the effective net investment by as much as 40%. A $20,000 investment can be reduced to $12,000 over a year or two by providing direct tax relief to the investor's tax paid. Needless to say, a reduction in the net investment has implications for the effective rate of return. If a $20,000 investment paid $30,000 in seven years, the investor would have received a 6% annual return. If the $20,000 investment is subject to a 40% tax credit, the effective rate of return annually increases to 14%.

While investment tax schemes improve returns -- provided all the other necessary conditions are met -- it is not clear that they actually *encourage* or *motivate* informal investment. Some studies have focused on individuals' reports of their motivations which can be different than observed results. Riding et al. (1993) found that less than a third of respondents were encouraged to invest informally as a result of the Canadian $100,000 capital gains exemption. In fact, 69% actively indicated it did not prompt their decision though most said they would like to see the capital gains exemption increased. Of the thousands of informal investments estimated to have been made over a multi-year period in Atlantic Canada (Farrell 1998), only 113 companies were reported to have been registered with the Province of

Nova Scotia's Equity Tax Credit records since its inception in the early part of the decade[7]. The Provincial Venture Capital Corporations (PVCC) of the 80's, intended to provide tax benefits linked to the size of investments, were found to have been little used by angels. The PVCC's requirements for professional legal and accounting information for even relatively small investments was seen to be an impediment. Therefore, there is little evidence that tax incentive schemes contribute significantly to the development of informal venture capital investing. If the relationship exists, it has not been widely studied or reported.

Interestingly, angels are more interested in improving conditions for the venture businesses in which they invest rather than obtaining tax credits for themselves (Riding et al. 1993). When asked by researchers what they would do to improve the rate of informal investing, the most frequently stated comments related to tax holidays, accelerated capital cost allowances, and reductions in tax rates for small businesses. As well, respondents felt if larger corporations were able to take advantage of tax breaks for investments under $100,000, informal investors may be better able to find adequate exit routes thereby improving the overall investment picture. Reductions and elimination of capital gains taxes on small and medium sized enterprises were the next most common comments.

Other suggestions regarding taxation related incentives are those that can be applied at the exit stage rather than the investment stage - namely capital gains exemptions or reductions. Some critics argue that tax breaks on investments at the beginning of the investment cycle are like giving the prize at the beginning of the race while taxing capital gains represents an unnecessary penalty for investors at the end of the investment ("Do labour sponsored" 1999). Some would prefer that a greater capital gain incentive be applied at the exit stage though Suret et al. (1995) noted that though the small business capital gains exemptions were important, many of the angels they met had "already completely exhausted this deduction" (p.59).

Experience in the U.S. during the late 60's and 70's showed a distinct indirect relationship between the rate of capital gains tax and the amount of venture capital flowing into venture capital pools (Tefft 1985). In the mid-80's, in response to indications of increases in the capital gains tax rates, the Canadian formal venture capital industry entered into discussions with governments about the tax rates on capital gains in Canada indicating the potential for disaster in the industry if the rate were increased. Comparisons between Canadian, U.S. and British capital gains tax rates showed that angels who have exhausted their $500,000 small business capital gains exemption "pay significantly higher taxes than would an investor in the United States" and the United Kingdom as the length of time the investment is held increases (Cleveland 2000, p.1). Exemptions in the U.S. are applied at a rate of $10 million per family and the British equivalent is unlimited as long as the maximum £150,000 investment is held for five years. The Canadian budget released in February 2000 includes provision to rollover investment proceeds "where the proceeds are used to make other eligible small business investments" CICA 2000, p. 6). The deductability of losses in the U.S. and Britain are also more favourable to the investor than they are in Canada (Cleveland 2000).

Other initiatives, designed to protect unsophisticated investors from unscrupulous venture promoters, have had mixed results. Securities legislation, enacted to protect investors, is complicated to say the least. To comply with Ontario securities legislation, companies selling equity to individuals in amounts less than $150,000 require a prospectus (Macintosh 1993). Using the seed capital exemption, companies seeking capital from fewer than 50 investors with sales to no more than 25, are exempted from preparing

[7] Information acquired in conversation with Nova Scotia Equity Tax Credit program personnel in 1998.

a prospectus, but all potential investors must have access to information similar to that which would be found in a prospectus. Other exemptions apply to companies if the securities "are not offered for sale to the public" (Macintosh 1994a p.59).

Riding (1996) suggests that the difficult and protracted nature of these initiatives encourages informal investors to seek legal counsel. Layering legal, accounting and prospectus-related requirements to a $20,000, $50,000, or $75,000 investment significantly adds to the cost. When the investor feels these actions are required, they substantially reduce the initiatives' impact. Increasing impediments, he suggests, may well be the reason Canadian investors invest less frequently and for larger sums. "Complex regulations and prohibitive costs only serve big players" (DeJordy 1989b). Angels, however, continue to invest regardless of the securities regulations. "Ordinary Canadians are already making these informal private investments in high risk start-ups without such protection" (DeJordy 1989b, p. B3). Exactly whom do the regulations benefit? The trail of small investments demonstrated in the Atlantic Region (ranging from $1000 to $1,000,000) strongly suggest that many investments are being made without regard for the regulations (Farrell 1998).

The McCallum Task Force to the Ontario Securities Commission (OSC) in 1995 recommended a lifetime limit of securities sold under exemption status representing a total of $3 million, and the establishment of a new exemption for a new class of 'accredited' investors who are more sophisticated about a specific company, or informal investing. Three years later, the OSC responded with suggestions of making sophisticated investors of those with a net worth over $2.5 million and $300,000 net income, and abolishing limited market dealers. These proposals were met with criticism for not being mindful of the Canadian conditions since sophisticated Canadian investors were shown to have net worth and income brackets of approximately one-half of that suggested by the OSC (Sharwood 1999)[8].

In Atlantic Canada, specific regional initiatives by government agencies have attempted to provide a better supply of formal and informal venture capital. A decade ago, it was widely accepted that a lack of venture capital had caused firms to be over-leveraged with debt (APEC 1994), or they had self-financed their enterprises causing limited abilities to expand into larger markets. The Atlantic Canada Opportunities Agency's (ACOA) Action Loans Program was designed to supplement the "disturbing gap" (p. 5) for formal venture capital in the region (Vardy 1990). While the Action Loan Program was intended to remedy the venture capital gap by providing deferred interest loans, critics later argued that the government 'grants and subsidies' were the *cause* for the lack of formal venture capital investment in the mid- to late-90's. The short memory function has the cure becoming the cause. The reasons for a lack of venture capital in the Region require deeper introspection.

The strongest explanation suggests that Atlantic Canada does not share a similar demand function for venture capital as other parts of the country. It has been observed that, "even when equity investment is available, Atlantic entrepreneurs have tended to forego this option, possibly due to the lack of experience in sharing ownership with outsiders" ("Atlantic business development" 1994). Loans by the then Business Development Bank of Canada which represented 14% of the Bank's portfolio in 1994 far outweighed their equity investments in Atlantic Canada which totalled only $500,000. Anxious to correct the imbalance, the BDC tried to increase the rate of investments to loans. It is thought that if there had been a real demand for venture capital, the demand would have sought out the supply. The prevailing rationale suggests that the strong undercurrent of informal venture capital combined with a culture which supports a business tradition of small companies under tight control are the reasons for the

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[8] The research paper trail ends here.

anomaly (Campbell 1997).

In sum, reductions in capital gains and in business taxes are desired and there is some evidence to suggest they encourage informal venture capital at least in other jurisdictions. Initiatives designed to protect investors are easily complicated and lose their impact at a grass roots level when they become protracted. Direct government incentives, where they are debt-oriented, will always be preferred to equity programs.

3.1.2 General Economic Forces

Interest rates in general will affect how readily investors engage in informal investments. When interest rates are high on low risk bearing instruments, investors will tend towards the lower risk options. When interest rates are depressed, higher risk ventures will likely attract more dollars. Similarly, the attractiveness of the public equity markets which attract large amounts of investment monies may leave less available for informal investors to invest in early stage ventures (Langille 1998).

Other, larger economic forces can deal a fatal blow such as the stock crash of 1987. Formal venture funding for companies following the crash was dismal though anecdotal reports by angels indicated little harm done to their investment activities (Blackwell 1988). Angels may have been less unnerved by the crash than those investing in formal venture capital investees because the angels' early stage investees are further removed from the likelihood of going public soon.

3.1.3 Deal Generation and Pre-Investment Decisions

The flow of projects available for investment is composed of a number of factors including the number of proposals in circulation, the angels' search activities, and their subsequent screening, due diligence and decision making. Combined, these activities form the essence of 'deal generation' which contributes to the essential supply of entrepreneurial ideas and initiatives to the industry. The angels' search for proposals and the quality of those proposals are crucial elements of the supply.

There is a significant sentiment that angels do not want to be deluged with proposals so they keep themselves hidden, or 'invisible.' No one in Canada, *or elsewhere*, has specifically addressed the issue of anonymity although it has been oft-repeated since it was first uttered by Wetzel in 1983. The so-called invisibility and anonymity desired by angels precludes them from actively soliciting their intentions or making their names known publicly.

Yet, there is also significant sentiment that there are not enough good proposals to absorb the supply of informal venture capital (Riding et al. 1993; Suret et al. 1995). Suret et al. (1995) indicated the amount invested in Quebec would more than double were enough good proposals available so angels indicate a desire to see more proposals (Riding and Short 1987b). This feeds a curious dilemma since angels indicate a desire to see more proposals, but do not want to be seen doing so for fear of being deluged like new winners in a lottery. This would indeed be very peculiar behaviour for someone who wants to view more proposals to enhance the chances of finding more good proposals.

This dilemma raises questions about the activities in which angels engage to identify and search for deals. Of this we know little to nothing. The angel literature outside of the Canadian experience has focussed on informant reliance (Fiet in the US) and the role of business introduction networks (Mason and Harrison in the UK and Heidrich in the US) as the predominant deal search activities. Riding et al. (1993) and Lionaise and Johnstone (1999) found similar patterns. However, both these methods of deal generation involve very passive involvement by the angel which seems inconsistent with intuition and anecdotal evidence. For example, it is unreasonable to think that Terry Matthews of Newbridge Networks, an active and highly successful entrepreneur and informal investor, is sitting about, awaiting a lawyer or a colleague to call him about a spectacular investment opportunity. There is a complacency about networks and informant reliance; the most recent doctoral dissertation on angels processes ignored deal selection (van Osnabrugge 1998).

Relying on existing research regarding informant reliance and business introduction networks does not help us understand their actions and motivations. The literature tells us that angels engage in a very passive deal selection process, but our intuition tells us other activities are likely being engaged. It is not clear what angels *do* in their formal or informal search for proposals. Are angels observant of entrepreneurial signalling behaviours? Do they regularly put themselves in situations where entrepreneurs or successful business operators congregate? Are angels exhibiting signalling behaviours (actions that act as indicators of interest to other angels or potential investees)? What are they reading? To whom do they listen? To whom do they talk? Where do they advertise? How do socialisation patterns affect their deal search and decision process? What motivates their actions? Answers to these questions are more likely to provide practical applications in the long run than prematurely providing prescriptions about how to find angels.

Researchers have become complacent with the standard 'informant/business introduction service' response[6]. Angels (corporate or otherwise) must engage in *some* search activities. Identifying their behaviours and deal search activities would improve our understanding. Interestingly, the Cape Breton study indicated cold calls from entrepreneurs and other individuals were the third largest sources of deals for investors (Lionaise and Johnstone 1999) - a first in the literature anywhere! More new information of this nature is needed.

It is reasonable to hypothesise that if angels want to view more proposals it would be better to publicise their intentions as it would improve the proposal selection process as it makes it easier for entrepreneurs to find them. Ned Macaulay's comments confirm this notion (Sheldon 1999). Another angel, however, feels that the process of investigation engaged in by the entrepreneur in order to find the angel is a testament to the entrepreneurs' perseverance and fortitude - a sort of hurdle to be overcome (see Creig Clark's comments in Greenwood 1994).

In the formal venture capital experience, hundreds of proposals are regularly rejected; angels could have access to these business plans if they actively sought them or made themselves known. Angels are known to be less rigorous about hurdle rates of return, selection criteria, screening and due diligence activities than are formal venture capitalists, thereby making the projects of most entrepreneurs more available to angels than to formal venture capitalists. The lack of due diligence may be a result of less time or less ability, but is sufficient to reduce the inherent cost of evaluation and therefore the returns required. This makes more proposals available to them than to formal venture capitalists (though it does not necessarily work to the angels' advantage as angels indicate regret at not conducting more due diligence (van Osnabrugge 1998) perhaps because a great many invested deals fail (Farrell 1998)).

Quantity aside, the relative quality of entrepreneurs plays a role. Most entrepreneurs, it is felt by angels, are lower quality entrepreneurs (Riding et al. 1993) whose business plans may be viable, but are not capable of producing exceptional returns[9]. This group of entrepreneurs has little power in the investor-investee relationship.

High quality entrepreneurs, on the other hand, who have other resources available and are shopping for the best value, support and price to accompany their capital, will have high power in the relationship. These are the entrepreneurs for whom angels desire an opportunity to invest, but are less likely to be encountered because high quality entrepreneurs will find finance opportunities faster (Amit, Glosten and Mueller 1993). This would suggest they are in the market for finance for a shorter period of time. Angels looking for high quality entrepreneurs will need to be active and involved to meet the high quality entrepreneurs within the short time frame they will be in the market.

There could be a strong argument for the proposition that high quality entrepreneurs turn non-investors into investors. Something must turn non-investors into novice investors. Meeting a high quality entrepreneur with a successful business plan may be the necessary pre-qualification that converts non-investors into first time investors. That little is known about this conversion process emphasises the many important elements of angel investing which have yet to be uncovered. Because of the extreme upside potential of investing in a high quality entrepreneur, it is likely that the power held by the entrepreneurs, in their relationships with their angels, is high.

3.1.4 SUMMARY

A number of factors impact on the power of crucial contributions (supply) to the industry. Government actions can impact on the number of angels supplying capital to the entrepreneurial community though it is widely felt that governments could do more. General economic factors such as interest rates would be expected to contribute considerably to the desirability of informal investing. Though wealth and economic factors would seem to be very important, there is evidence in poorer pockets of the country and during significant times of financial market distress when informal investing still seems to be high.

3.2 COMPETITIVE RIVALRY

In many industries, the most important of the forces defining the industry is the jockeying for position amongst the various industry participants. Their strategies depend on their competitors' actions and the resources any one player may be willing to devote to retaliating or reacting. Generally rivalry intensifies when: the number of competitors increases; demand for the product is growing slowly; customer switching costs are low; competitors are dissatisfied with their market position; or when it costs more to get out of a business than to stay in and compete. As an example, there was evidence of competitive rivalry in the formal venture capital industry when a flood of venture capital funds caused the Canadian government to suggest that there were too many venture capitalists seeking too few proposals. Formal venture capitalists attempted to differentiate themselves by the quality of the valued added service they

[9] This experience is borne out in formal venture capital by the number of living dead, the 'six' in the so-called 2:6:2 ratio. Formal venture capitalists anticipate, on average, that two deals out of 10 will be written off, two will produce exceptional returns which will harvest nicely, and six will go on in their portfolios as the 'living dead.' The living dead are businesses that are viable and operating, capable of paying the entrepreneur a wage and profit, but will never meet the VCs' original expectations. The difficulty with these investments is what to do with them or how to realise anything from them.

provided, their ability to take ventures to IPO, by the sector in which they specialised, and other specific services.

3.2.1 Number of Competitors - Regionalism and Secrecy

In attempting to gain information about reports, research and the activities of trade associations and chambers of commerce regarding angels, contacts were made with the directors of these associations from across the country. Few offered any published or other information about the topic except the significant efforts of the Newfoundland and Labrador Chamber of Commerce. The Newfoundland and Labrador Chamber of Commerce hosted a four-location detailed seminar series with well-developed materials, speakers and substantial promotion ("Venture Financing Seminar Series" 1995)[7].

Unfortunately, in some locales, the appreciation for angels' roles in financing new and expanding SMEs has generated a proprietary sentiment. In a perverse reaction to the supply of angels, some of the communities where angels work have taken to guarding the angels as well as the provision of any published information about them. Some community associations which were contacted as a matter of course, in an attempt to identify publications for the literature review, reacted protectively and secretively about the knowledge or presence of angels in their communities and were reluctant to talk to 'outsiders' seeking previously published information.[10] This took researchers by surprise.

That requests for previously published materials were met with suspicion illustrates the protectiveness with which some associations guard their informal investors. There are two hypothesised explanations for this reaction. Firstly, the local association may be attempting to protect the identity of its known angels as the issue of anonymity has been widely publicised. The second, and more likely, reason for their protective reaction is a desire to keep their angels' future capital placements within the community by limiting their angels' exposure to the 'threat' of proposals from outside the community. Proprietary reactions by those who would attempt to protect their community and angel interests hinder research and development of better understanding as well as the angels' prospects for finding good investments. These types of reactions suggest there are still many un-funded entrepreneurial opportunities within a particular locale. The reverence with which angels are treated supports regional secrecy. It is unknown what reactions to expect to the possible introduction of new angels to these areas. It is suspected more new angels would be welcomed as more is preferred to less.

3.2.2 Demand Growing Slowly -- Few Good Entrepreneurial Proposals

Currently, a plethora of entrepreneurial proposals are in circulation. The increased requirements for fully developed business plans has precipitated the ease with which entrepreneurs can disseminate ideas. Prior to the widespread recognition of the importance of business plans, entrepreneurs with proposals to finance would have had to contact people in person, a more daunting task for most.

Though there are many business plans, what appears to be scarce are g*ood* business plans. In their analysis of the marketplace, Riding et al. (1993) suggested that there are many angels who want to invest but suffered from a lack of adequate proposals. A number of studies identified a considerable excess of

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[10] Specifically, requests for published information regarding angels as a part of the methodology specified for this research encountered negative reactions by some trade associations/chambers of commerce in Prince Edward Island and Vancouver.

additional funds possible to invest in Canada (Riding et al. 1993; Suret et al. 1995; Lionaise and Johnstone 1999). Riding et al. (1993) concluded that there was not a shortage of investors, but a shortage of good investments. As well, entrepreneurs are often unprepared for entitlements expected by equity capital (Suret et al. 1995). Furthermore, entrepreneurs who advance business plans without due consideration for the returns expected by angels are not just demonstrating their managerial inability to successfully commercialise a product and manage the investors' money, but actually advertising it (Riding 1998).

The Canadian, U.S., and British literature refer to lack of confidence in managements' abilities (Bochove 1993) to successfully bring the product to market as the predominant reason why business plans are rejected. The importance of the managerial talent of the entrepreneur is very important to angels. Angels use their selection of capable entrepreneurs to limit their exposure to market risk (Fiet 1995). Their concern for the proper selection of the entrepreneur (focus on agency risk) arises from their inability to wrest control over the investments if necessary because of limited share holdings and lack of contractual control mechanisms such as equity ratchets, strict monitoring and inability to replace the entrepreneur. Angels limit their exposure to market risk by selecting entrepreneurs who they believe to be expert in the product/market environment and who can manoeuvre the company within the marketplace to take most advantage of opportunities and limit industry, market, and competitive risk[8].

The large number of informal investments taking place (Riding 1993; Farrell 1998) suggests that many angels are able to find large numbers of investments that do meet their individual criteria. In Quebec, Suret et al. (1995) suggest that the wealthiest angels are in competition with formal venture capital investors - an issue which is further exacerbated by the government's promotion of *formal* venture capital investments.

In theory, when there are more industry players (angels) than customers (good entrepreneurs), rivalry between industry players intensifies as competitors jostle with one another to compete for market share. If one expects rivalry amongst angels to increase as angels compete for proposals, why then does there not appear to be any rivalry? In fact, to the contrary, there appears to be a great deal of co-operation amongst angels. The answer may be in the popularity of syndication and the lack of informational efficiency in the market place. First, let us deal with syndication.

3.2.3 Syndication

Syndication is the term used to describe the co-investment of more than one investor in a project. Syndication is a means of providing greater amounts of capital for entrepreneurs by pooling the investments of a variety of individuals. Syndication is a risk reduction mechanism for angels providing benefits in two ways. Firstly, one angel does not have to provide all the funds, so angels can invest in ventures that require more funds than they are able, or care, to devote. Secondly, it spreads the knowledge base about market and agency risks amongst the group. "'I can?t spend $100,000 on lawyers and technology expertise for due diligence. But if three of us are looking at a deal, we have a broader pool of knowledge and contacts. One will be an engineer who knows someone in a related field who can check things out.'[9]"(Sheldon 1999 p.28).

The wider literature provides evidence that syndication increases the anticipated holding period as well as decreasing angels' expected returns (Aram 1989), both of which are consequences which are advantageous to the investee. The practices of syndication and referrals from one firm to another are well entrenched in the formal venture capital industry (Sweeting 1991; Tyebjee and Bruno 1984) and some firms have been shown to invest in opportunities they had previously rejected when other venture capitalists had since chosen to invest (Steier and Greenwood 1995).

Ninety-one percent of Ottawa-Carleton area angels liked investing with others and had invested with a consortium, a venture capital company or a government agency (Riding and Short 1987b). This is in contrast with Cape Breton where investors co-invested 50% of the time and alone 35%(Lionaise and Johnstone 1999). Preferences for co-investing received a rating just slightly above indifference. This may be a result of a less sophisticated capital market (fewer players and fewer types of players), less information about the market, or fewer habitual investors who may have multi-player experience. There may be variations as a result of the economic disparities between the two examples as well, Cape Breton being a more economically challenged region than Ottawa.

There is little known about syndication and lead investors, and yet the implications of syndication could improve sectoral gaps in angel investments. For example, where there is a lack of investment activity - such as the high tech sector in Cape Breton - syndication could provide a solution by involving several investors even though there is only one individual well versed in the technology[11].

Angels tend to be more co-operative than competitive. The co-operative nature of their activities suggests an industry in its infancy whereby the co-operation benefits the individual players more than competitive actions.

3.2.4 Informational Inefficiencies

In some industries, rivalry is focussed on price competition. In other industries, performance features, product innovation, quality, durability, after-the-sale-service, or brand image are the key determinants by which competitors differentiate themselves. In the formal venture capital market, the VCs' specialisation and ability to successfully contribute and add value are features by which they attempt to differentiate themselves. There are no similar differentiating qualities amongst informal investors.

There are few avenues by which angels can systematically exchange information. Other than infrequent media coverage and some word of mouth, angels have no way of knowing what competitive practices other angels are employing. Angels do not know about the offerings of other angels, their deal structures, expected returns or governance practices. Therefore, lack of an information transmission system, irregular angel communication and the resulting lack of knowledge of other angels' activities works to keep rivalry at a minimum.

One of the most important new features regarding information transmission and informational inefficiencies is the proliferation and impact of the Internet which is revolutionising established power-knowledge relationships. Literally hundreds of matchmaking services and angel intermediaries are available on line from the US, the UK, Europe and Australia. The Internet has web sites offering matching services, advice for entrepreneurs, venture advertisements, advice on where to find business angels, and sites advertising angels themselves.

One of the most surprising findings is that the ubiquity of computers, and exponential growth of all things Internet-related, has not manifested in a proliferation of Canadian-based, angel related web sites. There are very few angel-related Canadian web sites. At a government level, this may be a natural result of difficulties arising from the Canadian Opportunities Investment Project failure, yet there appear to be

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[11] This suggestion was made by Johnstone at the University of the College of Cape Breton.

many CCIP sites which do not have web sites. Regardless of the funded sites, one would expect more match making sites to have developed at the local or private level. Of the sites that were found, a few were related to angel activity amongst other information, a few were specific to angel information, and three Canadian sites had a matchmaking motive in mind. The three matchmaking sites are: 1) the "angel banker club" with Banakor Swisse www.banakor-swisse.com and had a Toronto telephone number; 2) the Mount Pearl CCIP site, www.mtpearl.nf.ca describing their matchmaking responsibilities and activities; and 3) the Ste-Therese de Blainville CCIP site, http://www.carrefour-capital.com/ .

Other Canadian sites which offered limited general information about angels and the nature of their investments were: The Canadian Council for Small Business and Entrepreneurship, Industry Canada, Macdonald and Associates, Ventures West Inc., VC Firm, and the Canadian Venture Capital Association. Their web sites appear in Section 6.3.

The review of Internet web sites and the dearth of much Canadian activity adds further evidence to the informational inefficiency argument. Groups of individuals from associations and industries around the world occupy 'chat lines' on thousands of subjects, but angels choose not to invest in information with other angels. The ease with which angels could use the Internet to meet other angels, trade information, compare prices, contractual arrangements and exits would facilitate their activities - but still nothing exists. With the exception of their co-investors, theirs is a very solitary endeavour.

3.2.5 Summary

The protective and secretive sentiments of trades associations implies that there are not enough angels to meet the demands of their local entrepreneurs. Yet angels report not being able to find enough demand (good entrepreneurs) to satisfy their supply. The industry and market are at odds on this matter. The lack of angels' activities to take advantage of new information technology to learn about the actions of others in their own industry suggests informational inefficiencies are still at work. As they are unaware of one anothers' activities, rates of return, investment criteria and venture opportunities, there is little room for rivalry.

3.3 Threat of New Entrants

Factors important to the threat of new entrants embody elements that would lead to an increase in the number of competitors in an industry. The threat of new entrants attempts to isolate competitive factors that causes there to be more players conducting the same activities and competing for the same market. For most industries, a high threat of new entrants spells increased rivalry and more competitive reaction required. When industry factors combine to produce high profit margins and few barriers to entry, new competitors can flood the market making operations and profitability more difficult for existing competitors. A variety of forces act to discourage new players from entering an industry. They include: high capital costs to enter; requirements for detailed and specialised knowledge; the presence of learning and experience curve effects; specific resource hurdles or requirements; limited access to distribution channels; or regulatory and government actions. The presence of a number of these factors can inhibit the entrance of newcomers to the industry (Thompson and Strickland 1998).

3.3.1 Capital Requirements to Enter

There is a significant total dollar investment needed by an individual to enter this market either successfully or unsuccessfully. In the absence of government tax incentives, the investments are made in after-tax dollars making them almost twice as expensive given the income brackets of many of the kinds of individuals investing (Riding et al. 1993). Though a number of provincial and federal tax incentives apply, clearly, a minimum level of wealth is necessary to enter the market.

The height of the market entry barrier, however, may not be as high as convenience sampling implies. Hand picked, non-random samples tend to have few investments with large values. When large numbers of angels appear in samples that have a more random approach, however, (Farrell 1998) suspicions build that extreme wealth and high incomes may *not* be prerequisites for angel investing. Farrell's work did not request income or wealth information, but the numbers of angels appearing in the data suggest rates of informal investing that may go well beyond the numbers having extreme wealth in the provinces. As well, the same study showed investment ranges from $1,000 to $500,000. Though small by comparison, some individuals are exhibiting the excitement of new ventures involvement at a minimal level of entry barrier.

3.3.2 Access to Distribution Channels -- Business Introduction Networks

Angels are not obvious and finding them is an elusive pursuit at best. Their invisibility and the difficulty entrepreneurs face in finding angels represents a "giant game of hide and seek with everyone blindfolded" (Gaston 1989, p 4). The entrepreneurs' best chances at finding one is still thought to be through their own network of colleagues and acquaintances (Yarr 1999, Sharwood 1996). In Atlantic Canada, the number of novices out numbered the number of habituals so entrepreneurs, in searching for angels, may be best advised to look to individuals who have never previously invested (Farrell 1998).

Business introduction agencies are agencies which try to match angels with entrepreneurs. Significant efforts at developing business introduction agencies have been initiated. Business introduction networks, match making bureaux, and networking services are seen as desirable and important as a type of channel mechanism bringing buyers and sellers together. Access to channels of distribution -- in this case, finding suitable manners and means of matching angels with adequate entrepreneurial pursuits -- is a matter of significant discussion, study and public effort in Canada. Intermediaries, national, local, sponsored and private match making initiatives have been established. Surprisingly, initiatives have met with extremely variable reception *and* results.

Earliest reports of investor interest run hot and cold on the idea of match making networks in Canada. Riding and Short (1987b) found that about 30% of informal investors had no, or almost no, interest in matchmaking networks and about 45% were only moderately interested in the idea. The message, though not strong, seemed to be that they were not interested and would prefer to find deals on their own. They either did not want, did not trust, nor did not feel the necessity for the services. At that time, there may have been less acceptance for the intermediaries as a consequence of less knowledge about the services. Why some (possibly many) angels do not prefer such services has yet to be discovered.

A number of matchmaking services have been launched in the past decade. In 1990, the Foundation for the Advancement of Canadian Entrepreneurship (FACE) launched the Enterprise Funding Corporation as an information, opportunity, networking and resource subscription database where opportunities could be reviewed and listed for sale (DeJordy 1990 a; 1990b). The then Ottawa-Carleton Economic Development Corporation has maintained an office for the Special Investment Opportunities (SIO) project which has been "instrumental in arranging early-stage financing of almost $5 million for Ottawa businesses" (Riding 1998 p. ME4).

The Canadian Investment Opportunities Network (COIN) project's failure was widely reported in Riding et al. (1993). Computerised business introduction services have had limited success in Canada. Its lack of success is attributed to the informality of the database, the breadth geographically at which it tried to bring investors and entrepreneurs together, and its arms' length attempt to introduce entrepreneurs without regard for project type or quality. As well, because the investor had to contact the entrepreneur, it was felt that the anonymity issue was not handled well. The case of the Halifax Equity Group, which added personal service and much cultivation of entrepreneurs before presentation to investors, was also a failure though not as widely known nor publicly evaluated. It is probable that there are other efforts to provide business introduction services which exhibited similarly poor results.

In the U.K., the apparently more successful business introduction services are generally funded by subscription memberships and little due diligence is performed on the deals. The investors receive newsletters with the details of entrepreneurial activities included. Investors contact entrepreneurs if they are interested. Though surprisingly similar in practice, the U.K. efforts appear to be more successful than COIN was in the Canadian context.

No benchmarks have been established by which one determines the success of such a service, however, examples of relatively more successful Canadian operations include the now defunct St. John's Board of Trade Investment Opportunities Project (IOP) and the currently operating University of Calgary MBA student credit system. The former, the St. John's Board of Trade IOP was funded by ACOA and brought together investors to view screened opportunities, organised forums, and conducted education and information seminars. Twelve matches (from 90 entrepreneurs) over three years produced acceptable results. The University of Calgary ("CCIP Conference Report" 1999) gives MBA students credit towards their degree program to conduct due diligence for entrepreneurs[10]. If the year's efforts produce ventures which look favourable after the students' analyses, a number of angels are invited to the University to hear the entrepreneurs' plans. They have had a number of noteworthy successes over the past 15 years, but unfortunately, like the formal venture capital model, their experience has shown that angels are more likely to favour the larger deals (greater than $500,000)[12] short changing the younger, more immature seed deals for which it was thought informal investment was ideal.

More recently, under the Canadian Community Investment Plan (CCIP), a comprehensive investment skills development program ("Steps to Growth Capital" 1997) and 22 demonstration sites across the country are developing databases and networks, organising investor forums, screening entrepreneurial proposals, and coaching entrepreneurs in an attempt to facilitate access to capital. A formal analysis of best practices will be developed and disseminated following the program's completion in 2002 ("Canada Community" 1995).

In 1998, the merchant banker, Banakor Swisse, launched an 'Angel Investment Club' via Chase Global Capital whereby investors with as little as $1,000 can partake of group investments reviewed and analysed by Banakor Swisse specialists ("Angels are organising" 1998). Unlike the average expected returns on angel investments, Banakor Swisse pays the going rate on a savings account. Three months

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[12] APEC (1994), in agreement with critical sentiment acknowledged in the wider literature, suggests it is impossible for these operations to exist independently of public funding since their operators - in the search for commissions or fees - will always gravitate to the larger deals, hence debilitating the early-stage intent for which they were encouraged.

after announcing the product, bank officials met with potential investees in Nassau ("Looking for returns" 1998b), and ten months later were referring to the club as "a unique organisation of international elite, sophisticated and astute venture capital investors." The target seems to have evolved considerably from the initial prospects who were the $1,000-investors ("Banakor Swisse Financial" 1998c).

Reports have indicated that because of the difficulty in finding good entrepreneurial opportunities (Riding and Short 1987a), it is important for the business introduction agency to weed out the 'lemons' (Blatt and Riding 1993). Some reports from the U.K. suggest that business introduction services only attract lemons (Harrison, Dibben and Mason 1997) because only lower quality entrepreneurs seek these sources of funding (Amit Glosten and Mueller 1990). Angels who desire networking opportunities prefer presentations and informal private investment circles (Lionaise and Johnstone 1999). Sufficient funding would appear important as a direct correlation has been established between sufficient money for publicity and advertising and a continuous flow of new entrepreneurial opportunities and angels (Brown and Stowe 1991).

At present, opportunities for matchmaking services are ripening, but the perfect equation to woo investors and satisfy entrepreneurs has not yet been found. In theory, market inefficiencies would seem to be improved by introducing angels and entrepreneurs and facilitating the free flow of information, but the lowest ability entrepreneurs are expected to take advantage of these services (Amit Glosten and Mueller 1990). In practice, the interest of investors is thin at times and over-zealous entrepreneurs are unhappy with the results after weeks or months of anticipation and no capital forthcoming.

Business introduction services are intermediaries and play a role in the introduction of entrepreneurs and angels. As Internet technology is engaged by issuers, the competition for good proposals may increase and cause a greater shortage of suitable opportunities. Fewer and fewer intermediaries need be involved in transactions. Langevoort (1998) provides an analysis of the US situation that poses thoughtful questions about the more direct channels - from angel to entrepreneur - and their consequences. As well, as industries engage in more business practices using the Internet, it is expected that 'questionable' offerings will be more readily available.

In an attempt to untangle forthcoming issues related to the ease with which angels may meet entrepreneurs via the Internet and questionable 'offerings' which may result, a studious examination of the role of intermediaries and the effects of possible disintermediation are called for by Langevoort (1998). He calls for broad empirical study of investor practices regarding how they learn about opportunities, how truly 'sophisticated' investors really are, and who else they rely on for investment information in making decisions. He also calls on researchers to take up the cause for similar study about start-up firms. Given the nature of advances by Canadian intermediaries, or lack there-of, these calls for advances seem timely.

3.3.3 Detailed & Specialised Knowledge or Learning & Experience Curve Effects of Habitual Investors

The literature beyond Canada highlights concern about the actions of habitual angels, those who have made more than one investment, because it is thought that as a group they administer the largest portion of investment funds. As habitual investors, there may be economies of scale or learning efficiencies. But economies of scale and the need to sustain high levels of investment activity may not be the barriers to entry that had previously been thought since there are a proliferation of novice investors, first-time or one-time investors, in some studies. In a study of newly incorporated firms, Farrell (2000 forthcoming) identified 50 percent novices and 50 percent habitual angels. In previous works, high rates of habitual investors have been more likely to occur due to convenience sampling. Members of informal investment clubs or associations may have been more likely to be habitual investors since their higher level of activity would precipitate association with such groups. Therefore, when they identified other investors for interviews, the odds of finding more habitual angels was likely. More representative methods of sampling have shown a larger proportion of novice informal investors.

Advances in habitual entrepreneurs' activities, serial and portfolio entrepreneurs, have prompted similar interests in angel investors. It is not hard to hypothesise that experience and learning curve effects have a place in informal investments[11]. Angels are known to lament about conducting better due diligence were they to have their chance again (van Osnabrugge 1998). A critical mass, or gentle upward curve, as regards numbers of investments and learning might influence angels' ability to assess entrepreneurs who angels feel are the key to controlling market risk (Fiet 1995). On the other hand, angels who achieve substantial gains in their first investment will find it hard to duplicate their success as simple statistics states that subsequent occasions of any activity will regress to the mean.

3.3.4 Exits as Barriers to Entry

The exit is a precarious situation for informal investors because of difficulties in locating buyers. This is a serious industry exit impediment. Regardless of investment criteria and viability, lack of an exit or harvest opportunity renders the investment illiquid. Fewer efforts have been made to encourage the development of exit opportunities as compared to efforts made to encourage introduction opportunities. The focus of developmental efforts have been at the beginning of the investment process where the investees are the major beneficiaries rather than at the end of the investment process where investors may be unable to exit. When the focus is constantly applied to the front end of the investment process, the emphasis is on the recipient of the funds, namely the entrepreneur. Were the focus to shift to the end of the investment process, namely the exit, more attention would be applied to the investor. The lack of interest or attention to the angels' needs for returns and exits is demonstrated by the incredulity that entrepreneurs express at the anticipated expected returns of informal investors.

In Atlantic Canada, 18% of informal investors sold an investment but no details were provided as to the nature or manner of these exits (Farrell 1998). Another one-third of investments went bad implying that about 50% have never tried to sell their investments. In 1986, "attempts to create secondary markets for privately held shares" and to "improve access for junior- and medium-sized companies to the computerised automated trading system (COATS)" met with little response from securities commissions (DeJordey 1989b, p. B3).

3.3.5 Rates of Return

Industries associated with high rates of return are often susceptible to new entrants as other companies and players attempt to acquire some of the industry profits. Returns have two key components as regards the provision of venture capital; namely, the harvest amount received at exit and the length of time the investment has been held. The length of time the investments are held directly influences the returns achieved by the investor. In reviewing returns, the reader must be aware of the difference between *anticipated* returns and *actual* returns. The former signified what investors hope to achieve and the latter refers to actual calculations based on successful exits.

Internationally, the formal venture capital industry has grappled with developing methods of adequate and transparent reporting of returns. In a perverse reversal of the general risk return relationship associated with finance, the returns of early stage, high risk, investments have shown dismal results

(Bygrave 1994; Wright, Robbie and Chiplin 1997). As these early stage investment returns have been calculated based on investments of venture capital firms, there are good reasons to expect poorer returns by angels because of their less diligent pre-investment investigation. On the other hand, is it possible that better returns should be expected because of a greater inclination for an angel to know the investee in advance, or because angels take less equity than formal venture capitalists (Farrell 1998) and firms tend to perform better than average as the entrepreneur's percentage ownership increases (Amit, Brander and Zott 1997).

The informal venture capital literature has little to report as regards detailed actual returns[12]. Canada-wide, the average *anticipated* holding period expected by investors is more than six years (Riding et al. 1993). Investors in the Ottawa-Carleton area expect to hold their investments from five to eight years (DalCin et al. 1993). Actual investment holding periods may be heavily influenced by exit opportunities and the failure rate of young ventures.

Informal investors *anticipated* after-tax, non-compounded rates of return of 32% which is comparable to findings of greater than 50% annually found in other studies when consideration is given to the 51% tax bracket under which most informal investors would be classified (Riding et al. 1993). After tax returns of 30 to 40% per annum were reported in the DalCin et al. (1993) study. Riding and Short's (1987b) habituals were generally happy and indicated they would invest informally again. Farrell (1998) made fleeting mention of it in her study as few investors were prepared to discuss the matter. Those that did respond reported returns in the vicinity of 20 to 50%[13]. More startling, however, is the report that more than one-third of informal investors identified randomly indicated having lost their investment entirely (Farrell 1998). As the overall losses incurred by a number of significant investments increases, the group of investments as a whole must improve considerably to keep expected returns at a reasonable level. The lack of even many highly successful *anecdotes* suggests that investors are not receiving the quality of returns for which they had hoped. The best information as regards angels' return on average suggests one need not worry about a deluge of new entrants to the industry.

3.3.6 Serial Angels and Corporate Angels

The distinction between various types of private equity capital may seem precise, but there are considerable grey areas. As interest and research progress, two new groups of angels are making advances into the angel investment mindset. (They have been there all along, we are just now categorising and studying them.) They are angels who are investing the gains of previous informal investments, or successful entrepreneurs who are investing the gains of their current or previous profitable ventures. In this discussion, they are referred to as serial angels and corporate angels respectively (Farrell 2000 forthcoming).

To investigate each of these let us digress to the origins of private equity capital terminology. The two criteria that help to create categories of distinction for venture capital are:

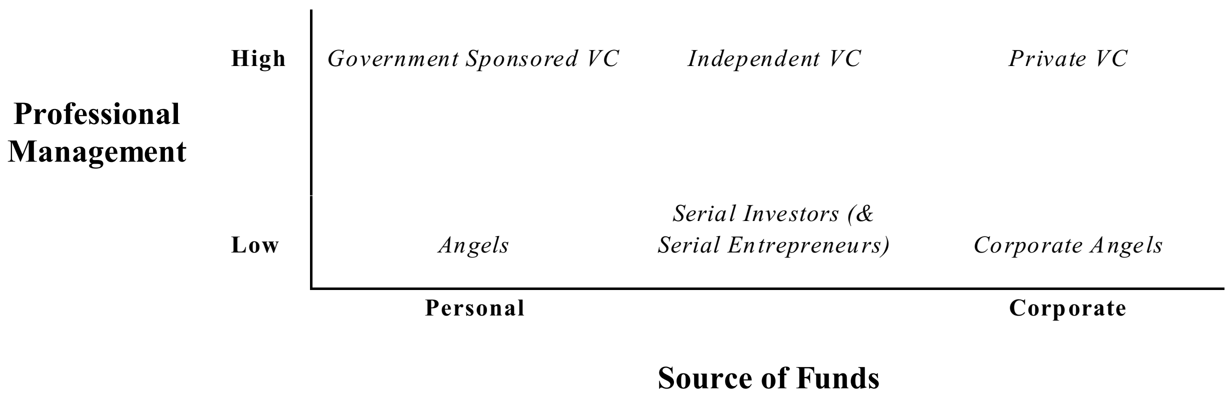
- the sources of the funds, either personal or corporate, and
- whether the investment decision makers are paid management or the funds' owners.

[13] This result may have been a function of the manner in which the question was posed in the telephone interview. Respondents may not have had sufficient time to calculate the return had they not worked it out in advance. This question has been revised in her current research.

Notice that the stage of the investee is not one of these criteria. Any formal or informal venture capitalist can invest at any stage of a venture's development. Types of venture capitalists are determined by the source and management of the *investor's funds.*

Firms that have funds provided by corporate sources and which have professional managers, exhibit more qualities of formal venture capital than *in*formal venture capital regardless of what stage of development the investee occupies. These groups are seen along the top of Figure 1. For example, the Royal Bank's Primaxis Technology Fund is a single company fund which, as a corporate subsidiary, has professional managers investing on the corporation's behalf. As a corporate subsidiary, the professional nature of its investment management makes it a formal venture capital firm even though it is intended to invest in early stage ventures. Primaxis would occupy the upper right side of Figure 1. Angels, on the other hand, invest personal funds and make their own search, diligence and investment decisions. These occupy the lower left hand corner of Figure 1.

Figure 1 - Classification of Private Venture Capital



Recently, a number of notable highly successful firms have become engaged in 'angel-type' investments which are recognised in the media. These firms are led by successful entrepreneurs. The most visible and obvious example is Terry Matthews whose estimated net worth exceeds $1 billion and who is spearheading investments in employees and other entrepreneurs via the medium of his own highly successful Newbridge Networks and Celtic Investments Inc.[13]. The former is the technology company where he made his initial success and the latter is the venture investment company established by him to allow investments in companies outside the control of Newbridge. Matthews is reported to have invested in almost 30 high-tech start-ups ("ITF Sets its Sights" 1999; "Small Pleasures" 1995).

Some successful entrepreneurs have had considerable success in backing and supporting entrepreneurial endeavours of their employees using their companies as investment vehicles. Newbridge Networks is an example of note. There is no reason, however, to believe that this company is the solitary example of such exemplary informal investment activity even though there are not many reported examples of others. Entrepreneurs are recognised as a significant cohort in the group of informal investors. In Riding and Short's (1987) study, 21 of the 25 respondents had been involved as top management in a new venture start-up. In Cape Breton, 80% of angels had backgrounds as entrepreneurs (Lionaise and Johnstone 1999).

Entrepreneurs who are the embodiment of their successful entrepreneurial companies and have a history of investing are more clearly angels even though the funds they invest may have been acquired and invested through their company's activities. The investment efforts of these entrepreneurs were facilitated via the vehicle of their companies, making the source of their funds more corporate. Despite this 'corporatisation' of funds the essence of an individual using their wealth to invest in other entrepreneurs persists. Investments which are made by entrepreneurs' corporations do not fall exactly within the parameters which would normally describe informal investment. Yet, in these cases the direction of the firm's investment activities is determined by the proclivities of the CEO who is a successful entrepreneur in her/his own right.

Hence, while the investments are financed by the successful operations of a firm, the nature and type of investment are initiated by the entrepreneur. In these scenarios, the entrepreneur has come to a position of wealth and ability through their own successful entrepreneurial activities. The evolution of successful entrepreneurs into informal investors is an area of research that is expected to grow rapidly (Farrell 2000 forthcoming). There is a growing cadre of such entrepreneurs whose personal successes are being used to finance new ventures of their own (referred to as re-contracting or serial entrepreneurship in the literature[14]) or of others. Attempts have been made to identify these types of 'corporate angels' and to include references to them in this review. No formal research has yet been conducted regarding corporate angels, but their similarity to serial entrepreneurs is worth pursuing (Wright, Robbie and Ennew 1997).

Not surprisingly, some of the entrepreneurs that successful corporate angels finance are in industries and product groups that are part of the angels' supply chain or channel of distribution. This takes advantage of industry knowledge that the entrepreneur has had years to acquire. Therefore, the investee's products are eminently employable in, or useful to, the angels' businesses. For example, Matthew's investment in ITF Optical Technologies Inc. was not just as an angel, but as a potential customer for the fibre optic booster which now has customers such as Nortel Networks Corp. and the high tech Newbridge Networks ("ITF Sets its Sights" 1999). Cody Slater's Rig-Rat and Ron Warris's Net Shepherd Inc. were similarly financed by oil industry 'corporate angels' and an employer (Colt Engineering Corporation) servicing the energy industry respectively (Cody Slater's Rig-Rat 1999). Consumers of technology tend to support technology investments.

In other cases, the angels' investment activity is arrived at after selling their share in a substantial success story providing them with the means and time on their hands to find and finance new ventures. Creig Clark'?s sale of College Pro Painters precipitated his Horatio Enterprise Fund. Unlike Matthews, Clark's Horatio Enterprise Fund focuses on small start-up service companies looking for less than $750,000 such as Canadian Coin Processors and ISDN as well as manufacturing such as Page Manufacturing's flat plug (Greenwood 1994).

Denzil Doyle, referred to as the dean of "informal investment" (Riding 1998) arrived from a key management position as president of Digital Equipment Canada (Sheldon 1999). His investments are reported to vary from "equipment that measure the after-effects of dynamite blasts in the mining and construction industries to data terminals for police cars" (p.24). Having invested in 15 investments, he is certainly a significant portfolio investor (many informal investments at once), but it is not clear that he is

[14] Mike Wright heads a group of researchers at the University of Nottingham who have been building a database of management buy-out and buy-in data which is the source for a series of papers on serial entrepreneurship and re-contracting by venture capitalists of formerly backed entrepreneurs. This database has been recognised as the longest running, longitudinal collection of entrepreneurial activity in the world.

investing the proceeds of previously successful entrepreneurial activities. As a former corporate CEO, his origins are slightly different than the other corporate angels mentioned who are largely entrepreneurs. In their case, they are entrepreneurs making their investments via their companies, while he was a former corporate executive now making investments personally.

In this industry, it is expected that more entrants into the industry will be met with enthusiasm instead of being perceived as a threat. The amount of media press associated with Matthews', Clark's and Doyle's investments have created a new kind of cultural hero, the Canadian success story who is not afraid to invest in their own employees or to seek out new and exciting initiative right here in Canada. These types of observations, were they more prevalent, would work to dispel the debilitating issues of "invisibility" and "anonymity" that, it is believed, angels prefer. By promoting similar success stories, angels may move to the forefront as publicly recognisable players in the equity markets making them more visible and available for new proposals. Similarly, the presence of serial entrepreneurs, who turn significant returns from initial activities into investments in other endeavours (Wright, Robbie and Ennew 1997), may be expected to increase the numbers of angels in the population[15].

3.3.7 Summary

It takes a significant amount of after tax capital to invest in the ventures of entrepreneurs, but the barriers to entry are not as high as some studies would suggest. Business introduction networks represent significant efforts to bring entrepreneurs and informal investors together, but the formula has yet to be perfected. As well, though it is felt that the detailed and specialised knowledge, and learning and experience curve effects would be significant, the presence of many novice investors suggests informal investors do not feel they need to be over cautious. The poor capacity for most angels to exit as well as the poor average returns represent some of the industry's largest barriers to entry to date. More encouragingly, the presence and apparent growth of serial, and portfolio informal investors as well as corporate investors gives cause for encouragement. The growing understanding that angels are very much born of entrepreneurs fuels optimism as these areas gain research interest.

3.4 Presence of Substitutes

The presence and availability of substitutes represent alternative sources of finance and the ease with which they can be accessed by entrepreneurs. Substitutes provide other options for entrepreneurs to finance their ventures. Substitutes are other types of products entrepreneurs could use instead of angel finance. The availability of substitutes, the ease with which the entrepreneur can switch between substitutes, and switching costs are three criteria determining the effect of substitutes on industry competitiveness. Details about the other methods of finance are not part of the study framework and so are not addressed here. However, the availability, desirability, and switching costs of general classes of substitutes is addressed. The general classes of substitutes include love money, debt and formal venture capital. As well, a scenario is hypothesised that differentiates between the availability of substitutes for high ability and low ability entrepreneurs.

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[15] The Federal Government 2000 budget allowing proceeds from one investment to be rolled over into new investments without tax penalty would be expected to improve this condition as well.

3.4.1 Love Money

To date, love money has been considered to be mutually exclusive of informal equity. The bulk of research interests typically examine only arm's length relationships as part of informal investments. This may be short-sighted as there is good reason to revisit the definition and motivation of love money as informal investment. Firstly, the evolution of personal relationships may put the definition in jeopardy. While the definition of family is relatively straight-forward, the identification of a partner as an investor or a friend is a more difficult distinction to arbitrate. Consider a scenario whereby an investor becomes integrally involved in the firm and then becomes a friend of the entrepreneur. The distinction of the entrepreneur's partner as a friend or as an investor is open to considerable interpretation. What may have started as an arm's length relationship may have evolved into a friendship. Was this love money or not?

Secondly, the motivations for investing may be based on information regarding business trust, personal biases and coercion. As regards matters of business trust, first knowing the entrepreneur may give an investor important insights into the entrepreneur's credibility and integrity. There is some evidence that investments by syndicates where the entrepreneur was known to one of the members of the group had better returns and exits than those where the entrepreneur was not known by any members of the investment group (Kelly and Hay 1996). Families, friends and neighbours may be better able to assess the entrepreneurs' credibility, work ethic and stamina. On the other hand, the assessments of family friends and neighbours may be biased, perhaps depending on the nature of the relationship. Furthermore, family, friends and neighbours may feel obliged or uncomfortable by requests for, or contributions of, capital.

Including individuals of these types in angel research allows room for exploration about differences and similarities that may not have been uncovered otherwise. This is where new insights are gained.

Family, friends and neighbours have been the traditional sources of love money (Macintosh 1994a). The role of families as significant suppliers of capital has been noted (Farrell 1998; "Venture Capital in OECD Countries" 1996). "The Canadian Federation of Independent Business reports that savings or loans provided by relatives, friends and associates make up more than 90% of start-up capital in this country" (Gaudet and Leighton 1987). Savings, friends and neighbours must represent a considerable supply of substitutes for entrepreneurs because, in the Atlantic Region at least, 35% of informal investors identified indicated they had made an informal-type investment to a family member (Farrell 1998). Many of the family investments were made by habitual investors[14].

It is often felt, however, that love money sources are exhausted before angel capital is sought and love money, therefore, no longer represents a reliable substitute for the new venture. On the other hand, where it is still available, it could be hypothesised that the close attention paid to entrepreneurs by the more personal relationships of family may prove to be a formidable switching cost. Anecdotal evidence suggests that this is one cost some entrepreneurs are not prepared to pay.

3.4.2 Formal Venture Capital

From an industry perspective, formal venture capital becomes more available as a substitute for angels when formal venture capital funds are plentiful. In Canada, when venture capital funds are well stocked, formal venture capitalists tend to look to more early stage projects (the traditional domain of angels) than when funds are more constrained (Macdonald 1995). Therefore, in years when venture capital is plentiful, angels may face competition from formal venture capital firms. This has been the case lately. In 1998 and 1999, the industry invested Cdn$659 million and $579 respectively in early stage ventures, up from previous years (Macdonald 1995). "When the money starts to dry up, as it did in 1991, very little is available for start-ups. Much of it goes into later stage financing of the more mature companies. With a little more money flowing into our industry today, a little more is available for our early-stage start-ups" (Pavey 1995).

When more formal funds filter down to the early stage projects, more substitutes will be available for entrepreneurs seeking funds. From the standpoint of any individual entrepreneur, however, formal venture capital will be a substitute in very few instances. Only for those who have very high abilities -- or at least the capability to signal as such -- will have access to formal venture capital. Safrata (1988) set the stage when he reported that 130,000 new businesses start in Ontario in 1987 while only 78 companies were funded by venture capital. Less than one-tenth of one percent qualified for formal venture capital. Seventy percent (70%) of SMEs in the Canadian Chamber of Commerce and the Canadian Labour Market and Productivity Centre's survey indicated difficulties in accessing venture capital ("It's an uphill battle" 1995).

Evidence suggests that angels are not as demanding as venture capitalists for rates of return or equity[15]. The rates of return required by formal venture capitalists are higher than those required by angels, and angels have not shown the 'vulture' capital approach by demanding controlling proportions of equity (Farrell 1998). Higher rates of return and larger portions of equity are the switching costs entrepreneurs have to endure to acquire finance from formal venture capitalists as opposed to angels. As well, entrepreneurs may be subject to considerably more monitoring actions by the venture capitalist than the angel.

3.4.3 BANKS AND NON-TRADITIONAL DEBT

Banks continue to represent the largest amount of finance for SMEs[16], but entrepreneurs are still concerned that banks represent a poor source of seed and start-up capital. Evidence supports their lament. While only one in five SMEs report difficulties accessing debt finance ("It's an uphill battle" 1995), the smaller, younger firms generally have greater problems since they have fewer assets and less demonstrated history of cash flows for payment. Banking representatives attribute the gap between what banks provide and what aspiring or novice entrepreneurs want to a lack of understanding regarding debt and equity and the banks' roles. (DeJordy 1989c).

Evidence indicates that the banking industry is making a policy of increasing the proportion of loans to retail customers (residential mortgages, credit cards, consumer loans) as opposed to business customers (Sharwood 1996). Wynant and Hatch (1991) examined more than 1,500 bank loan file attributes and found fewer than 10 % of loans were for companies less than one year old. Riding and Haines (1994) reviewed 1,400 files and found fewer than 5% were less than one year old.

Government-assisted, debt-type initiatives have provided help with loans by either providing guarantees for a price such as the Canadian Small Business Financing Act, or providing flexible interest and payment schemes such as Atlantic Canada Opportunities Agency's Action Loan Program. The Canadian Small Business Financing Act (then called the Small Business Loans Act) was designed to assist the asset-based needs of smaller firms by providing guarantees to traditional lenders which provided the loans. Widening the net to include projects as high as $250,000 (from $100,000) increased the number of qualified and interested applicants, but has been criticised for including projects which may have been able to find finance otherwise. Their 1997-1998 Annual Report reported that 38% of the 'loan frequency' went to new businesses. It is likely that much smaller percentage of 'total dollars loaned' went to new businesses as new ventures might be expected to ask for smaller sums on start-up (and because the number was not isolated in the report).

The Business Development Corporation's Patient Capital Project was designed for venture seeking from $50,000 to $250,000 with follow-up funds to $500,000. The terms of principle repayment were flexible, hence the name, but interest on the loans was payable from the start. Though the product was a loan, on-going management support gave the impression of venture capital. Introduced in 1995, the product is no longer available. Loans with similar terms can be arranged through their venture capital division.

ACOA's Action Loan Program in Atlantic Canada deferred interest for three to five years at which point higher rates of interest encouraged quick repayment (Vardy 1990). The program was designed to supplement the "disturbing gap" (p. 5) for formal venture capital in the region.

Other types of financiers are taking over the burden of business lending such as asset lenders, contract-based lenders, secured loans, and foreign financiers[16]. These types of lenders are little known by the average bank manager who is generally unprepared to help a small business in need of debt capital. Furthermore, many of these options are only easily available in the larger markets such as Toronto, Vancouver, Montreal, etc. The more 'equity-like' their offerings, the more expensive their products become.

Traditional and non-traditional sources of debt appear to be substitutes of limited value. At best, they may be good substitutes for specific entrepreneurs such as those with a history or demonstrated ability to pay, or those who happen to be located in major financial or urban centres. At worst, they are only available to larger firms or expose the entrepreneurs to personal financial risk ("It's an uphill battle" 1995).

3.4.4 High and Low Ability Entrepreneurs

The pecking order of finance places the various sources of finance sought by entrepreneurs in an order of preference. Entrepreneurs begin with their own resources. As they deplete their own personal funds, their desire to keep all the venture's equity encourages them to prefer debt as the next source. As high profile players in the financial system, banks are often the entrepreneurs' most obvious source and gravitate to them first (DeJordy 1989c). By employing debt as their first line of defence after they have exhausted their own sources, decision making, control and equity remain intact for the entrepreneur. If debt sources are not forthcoming, and success at the more traditional financial institutions wanes, the entrepreneur is forced to concede that selling equity will be necessary to achieve their objectives.

When equity sources are examined, the more publicly recognisable formal venture capital firms may be the first in the entrepreneurs' arsenal of equity options. (After all, a venture capitalist's phone number can be found in a telephone book.) However, most entrepreneurs have little understanding of the high hurdle rates and exponential growth expected of formal venture capital investees. They are quickly deterred as very few of the proposals formal venture capitalists review will meet the growth pattern and upside potential required of venture capital firms. Beginning to exhaust their options, entrepreneurs then turn to angels. Having read and heard about angels, but not knowing where to find them, may make

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[16] For a comprehensive review of the methods of finance available to small and medium sized enterprises in Canada, see Riding's report to the Task Force on the Canadian Financial Services Sector. 1998.

angels the last resort in the pecking order of entrepreneurial finance. By this time the entrepreneur finds interested angels, s/he may not have many alternatives. At this point, entrepreneurs may have few, if any, substitutes. Sadly, with few substitutes left, there may be little 'ease' with which they can manoeuvre.

In short, entrepreneurs start with their own money, move toward sources of debt, and then seek equity (Binks and Vale 1990). Therefore, as a rule, entrepreneurs generally come to venture capital after they have exhausted all other avenues.

The scenarios may diverge depending on the ability of the entrepreneur. Amit, Glosten and Muller (1990) provide convincing theoretical analyses that high ability entrepreneurs do not need to participate in seeking venture capital; low ability entrepreneurs will look for equity and may purchase 'signals' which make it appear that they are high ability entrepreneurs. The entrepreneur knows their own ability whereas the venture capitalist does not, and only the entrepreneurs who are unsure of their capabilities will seek to risk share by pursing equity such as venture capital. The poor returns in the venture capital industry add justification to this theory. These issues of asymmetry of information and adverse selection present compelling and thought provoking grist for those involved in private equity policy.

There is also evidence that entrepreneurs who have been previously funded by venture capitalists will signal their worth by not taking the first offer made by interested equity providers. These high quality entrepreneurs will negotiate to acquire better terms, deal structure, fewer contractual obligations, reduced reporting requirements, or value added services (Busentiz, Barney and Fiet 1997). Therefore, having substitutes available to them, high ability entrepreneurs may be selected by angels early in their search for finance, possibly even before the entrepreneur begins serious search activities. Low ability entrepreneurs, having few substitutes, will be left actively looking for capital at the match making bureaux and business introduction services. Some angels have commented that the entrepreneurs who are not invested in quickly by acquaintances and friends must be low quality entrepreneurs[17]. Do successful angels opportunistically search and approach high quality entrepreneurs' And do other angels passively await proposals from poor quality entrepreneurs'

Hence, not surprisingly, the ability of entrepreneurs may determine the quantity of equity substitutes available to them. The development of the theory of high and low ability entrepreneurs (Amit et al. 1990) may have less bearing on the provision of debt since loans decisions are based on more objective and, to a greater extent, historical criteria such as cash flow, ability to repay, and assets. These types of decision criteria leave less room for assessing the future potential of a currently unproven entrepreneur.

3.4.5 Summary

Family and friends may be difficult substitutes for angels as they may have been exhausted as a source of capital first, or they may be an uneasy observer, too close for comfort for the needful entrepreneur. Venture capital, conversely, is often desired by entrepreneurs, but there are very few who meet the exponential upside potential and strict requirements of venture capital. Debt capital is generally a poor substitute for start-ups and seed stages of finance as the historical ability to pay or asset based collateral are not present. The theory of high- and low-ability entrepreneurs may determine the sources entrepreneurs seek and their ability to access substitutes.

3.5 POWER OF CUSTOMERS

Within the Porter's Five Forces Model, customers have power in the industry-customer relationship when the customers are large and have substantial bargaining leverage in price negotiations. Other situations that may give the customer relative power in the industry-customer-relationship occur when: the customer has substitutes from which to choose; the customer's costs of switching are low; the customer is very large or particularly well informed about the sellers' products, prices, or costs; or the customer has discretion over whether or not to work with the seller. The agency concerns[18] of the angel-investee relationship, has been studied extensively by Fiet for a decade. From the contract law, the amount of control that the investee possesses after the relationship with the investor has been cemented with an agreement is the key determinant of the entrepreneur's power in the relationship.

3.5.1 SUBSTITUTES AND SWITCHING COSTS

Low quality entrepreneurs who have been invested in by angels may have few substitutes; there are more substitutes for high quality entrepreneurs. For each, however, the switching costs are high. The considerable time and effort which goes into locating an angel represents real and opportunity costs for the entrepreneur[19]. To change that financier means not only do they have to find new sources of finance, the entrepreneur will have to buy out the angel were s/he to decide s/he did not want to pursue this relationship further. Knowing the expense it can be to rid yourself of an angel reduces the entrepreneurs' power in the angel-investee relationship. In some instances, where the success of the venture is outstanding, the angel may not want to leave[17]. Anecdotes abound about successful entrepreneurs who consider their angels to be millstones though this has not been explored empirically. It can be very hard for an entrepreneur to gain additional power once the deal is consummated and the structure and conditions established in a formal or informal agreement.

As has been discussed, debt is often preferred to equity for continuation of control by the entrepreneur and because of the cost of the instrument. Acquiring debt may be the alternative when the angel is bought out. Low ability entrepreneurs will have fewer substitutes as their projects will not support the criteria for debt. For an able entrepreneur, the cost of debt would be less than the cost of equity capital as angels are anticipated to expect anywhere between 20 and 50% after tax, annually for five to ten years possibly before harvest.

An experienced entrepreneur may have power in the relationship when execution of the exit becomes imminent. The entrepreneur's perspective may have migrated towards a hold, rather than sell, strategy though the angel and the entrepreneur may have shared similar opinions at the advent of their relationship. Different perspectives evolve as time passes as the entrepreneur may have their livelihood, job, salary, retirement and equity at stake. Unless the details of the harvest criteria have been well specified in advance, the entrepreneurs' migration to a 'hold' strategy could spoil the informal investors' opportunities for successful exit and harvest if a potential buyer was in attendance.

The potential for difficulty would suggest that angels 1) massage carefully their relationships with their successful entrepreneurs to ensure an equitable parting for both of them, and 2) spend thoughtful consideration throughout the duration of the investment as to the personage and form of a potential buyer

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[17] A Nova Scotia entrepreneur whose business has had exceptional success reports having attempted to make her angel "a very rich man," yet he is not interested in exiting the venture.

for the investment. More knowledge of exit patterns, types of exit partners, conflicts with the entrepreneur and possible exit strategies would make a meaningful contribution to existing angels and future investment patterns in Canada.

3.5.2 Large Customer or One Who is Informed About Sellers' Products, Prices, Or Costs

Almost by definition, entrepreneurs who are financed by angels are relatively small organisations. Entrepreneurs who have received angel capital are highly fragmented with no associations with one another. Except for press and media accounts, which are extremely selective, they generally have no information about angels' prices, contracts, suppliers, or costs. Their naivete is glaring when entrepreneurs are surprised by the returns which angels expect.

3.5.3 Customer Has Discretion Over Whether Or Not To Work With The Seller

Most entrepreneurs, it is felt by angels, are lower quality entrepreneurs (Riding et al. 1993) whose business plans may be viable, but are not capable of producing exceptional returns. These entrepreneurs do not have discretion over whether or not to work with the angel and are fortunate to find one. Their power is low. However, if the investees are high quality entrepreneurs, they may have other opportunities available and are shopping for the best terms. Entrepreneurs who have previously been financed by venture capitalists have been shown to negotiate better deals than their less experienced first-time venture capital seekers.

High quality entrepreneurs may be those for whom most angels would desire an opportunity in which to invest. Because of the extreme upside potential of investing in a high quality entrepreneur, it is likely that the power held by the entrepreneurs, in their relationships with their angels, is high. In this scenario, one can build an hypothesis that a high quality entrepreneur converts non-investors into investors. Meeting a high quality entrepreneur with a successful business plan may be the necessary pre-qualification that converts non-investors into novices. That little is known about this conversion process emphasises the many extremely important elements of angel investing which have yet to be discovered.

The high quality entrepreneur has the most opportunity to exercise power when the terms of the deal are being negotiated. After an angel has made a decision to invest, negotiations will focus on issues of price and, if the angel is not inclined towards the passive side of the scale, methods of governance that may include monitoring and control. To the extent that angels require tight control, binding contracts, high governance and observable and frequent monitoring mechanisms, entrepreneurs may have little control. The use of contractual agreements by the angel can dilute the entrepreneurs power. Constraints on salaries and the expenditure of large sums of money, regular reporting requirements, requiring seats on the board of directors, and equity ratchets are all methods for angels to exercise power over the entrepreneur. The greater the use of these tools, the more power the angel will have in the angel-investee relationship.

The exit is the final score on which the entrepreneur and the angel must settle. If contractual agreements have been decided in advance, the arrangements of the harvest may be established and the entrepreneur has less power over the final arrangements. Often, however, the specifics of exit are not pre-established and an unwilling entrepreneur can wrest a successful harvest from the angel. Experienced angels have indicated convertible debentures are their preference. "Macaulay usually takes convertible debentures as his investment. 'If the company hasn?t made it in three to five years, I get my money back ? provided, of course, the company is able to redeem it. If the company fails, your money is gone. But if the company is doing well, it should do an IPO, and you exercise your option to take common shares'" (Gordon 1999).

3.5.4 Summary

Entrepreneurs who have found angels may have substitutes, but will probably incur extremely high switching costs to unburden themselves of the angels. The investee entrepreneurs have little in the way of good information about other entrepreneurs' situations because of their loose association with other entrepreneurs and they also have little way of acquiring knowledge about angels' prices, costs and products. High quality entrepreneurs may have discretion over whether or not to work with an angel, but because angels are thought to be the last source of capital for many entrepreneurs, the investees cannot exercise considerable power after the deal has been consummated. One area where investees can overcome their financiers is if they are high quality entrepreneurs and can adjust the terms to their greater benefit, or in refusing to execute harvest strategies which benefit the angel.

4. RESEARCH AGENDA

In the academic literature, the largest bodies of work to date have been accomplished in: the United Kingdom by Mason, Harrison, van Osnabrugge, Stevenson and Coveney; and in the U.S. by Wetzel, Fiet, Gaston, Busenitz, Barney and MacMillan. Notable significant efforts have been made in Canada, Sweden and Finland, however, the research efforts in these areas have not matched the volume of academic productivity published in referred journals from the areas previously noted. To use only Canadian information in a report such as this is to provide a lens too narrowly prescribed to be able to see the field clearly. Though some work beyond Canada has been incorporated, it only touches the surface[20]. The short time frame, and terms of the study do not permit such a detailed discussion.

The focus of the literature world-wide began in the early 1980s with the identification of personal demographics and investment characteristics; the age, background, professional experience, wealth and income characteristics of angels were primarily important. As well, interest revolved about the types of firms they selected, their criteria for investing, the size of their investments and how much capital they had yet to invest. In the late ‘80s, it was apparent these individuals existed and their importance confirmed, therefore, the focus shifted to investigating angels' motivations and attitudes about their investment priorities. Examples of these types of studies included attempts to outline their risk and return profiles and their criteria for investing.

More recently, the focus has gravitated to more theoretically-based examinations of behaviour, attitudes and motivations in an attempt to identify some basic understanding on which to explain observed behaviours. The last five to ten years have been characterised by forays into agency theory (the nature and difficulties of ‘agent acting on behalf of principals'); financial theory (the inefficiency of the angels' financial marketplace); procedural justice theory (decision processes designed and engaged in by the participants are perceived more fairly); game theory (the various outcomes which result from multi-period games when played with several variables); sociology; psychology and economic theory. The most recent research is focussing on motivations and cognitive processes.

The entrepreneurship literature is serving as an important springboard for research about informal investors. There are good reasons for using entrepreneurial research as a template for angel research. Firstly, many angels have been, or are, entrepreneurs. Understanding them as entrepreneurs may lead to important insights regarding their motivations and actions. Secondly, the environments in which entrepreneurs and angels act are similar in terms of uncertainty, risk, and financial obligation, therefore potentially heralding similar processes.

The benefit to the emergence of theoretical frameworks for angels is that they will generally apply to all angels, and not just those of a particular area. The problem with research that is demographically and characteristically laden is that it is heavily case dependent meaning that somewhat different findings will be achieved from one area to another and findings are not generaliseable from one group of angels to another. This has already been well documented by a variety of studies. Theoretically based work generally means our findings will apply to all angels. As in the entrepreneurship literature, integrating various perspectives and disciplines and applying analytic, empirical and experimental tools will help develop explanatory and predictive theory (Amit 1993). Thus, the results of theoretically rigorous work in Canada will have applications to all policy makers and researchers.

4.1.1 RECOMMENDATIONS

Based on the number of funded reports, there is support for knowledge acquisition regarding angels in Canada. That research, however, must now move beyond the descriptive qualities of Canadian and regional informal investors to more theory-based understanding such as the rest of the literature beyond Canadian borders. Research into angels motivations, cognitive processes and behaviours will transcend borders and be of value to all those who appreciate the significant risks assumed by this group. Researchers contracted to conduct angel research should be encouraged to further pursue their findings in publications so academics world wide may be exposed to Canadian knowledge.

Increase support for deal generation research. Deal generation represents the least understood aspects of the informal investment process. We may observe angels peripherally, appreciate their importance, or recognise their importance to entrepreneurs, but we know little about how angels' perspectives affect how they find deals and where they look for them. Well recognised researchers have indicated that the best deals may be gone before ever get to the business introduction network stage. Some business introduction sites have had very mixed results; the results of the CCIP project are awaited. Yet in this midst, there are exceptional angels picking and funding exceptional projects. We need to find out what they do.

There are considerable questions regarding the nature of the deal generation process and the activities angels employ to find entrepreneurs. Because we have focussed on the passivity of business introduction services and informants, there is no real understanding of the activities and thought processes that occupy successful and unsuccessful angels. The deal search entails finding proposals, identifying good opportunities, spotting the potential growth industries and characterising correctly the managing entrepreneurs. The spectacular successes of some corporate angels, such as Matthews of Newbridge Networks, suggest that cognitive processes precipitate activities which generate repeatable successes beyond great odds. A greater understanding about the specific activities in which angels engage to identify suitable proposals promotes the dissemination of more practical prescriptions for entrepreneurs.

Objective evaluation of the CCIP program against independently established objectives, such as results obtained elsewhere, will enhance impartial evaluation of the program's results.

Develop and support research in search of exit process discovery. Exits are critical to the angel investment process as the system is currently entrepreneur-focussed. They need more support at a policy level and greater understanding at an individual research level. We are still very far away from having a well rounded understanding of how angels pursue exits, if they do, the primary method of exit, and the details of the relationships between the entrepreneur and the angel five to seven years hence. Better exit opportunities, better exit returns and better exit relationships will undoubtedly improve repeat angel activity. Though yet untested, habitual informal investors may be a product of successful exits. Successful exits and possible subsequent habitual activity may promote further depth of insight into the angel process. Empirical observations about exits may result in observations about high and low ability entrepreneurs and the nature of the search process by which the angel discovered them.

Encourage understanding of the heterogeneity of angels by differentiating between novice and habitual informal investors. Novice angels invest once and may or may not invest again. Habitual informal investors have decided to re-invest. Novices make considerable contributions collectively and generally spend a greater range of funds. Habitual angels are recognised as being very important since their individual contributions over a period of time can be substantial. The highly successful corporate entrepreneurs are often associated with this category. It is likely that the motivations, attitudes and cognitive processes are very different between those who invest once and those who go on to invest, but distinguishing characteristics are not yet recognised. Pursuing understanding of these differences may uncover meaningful insights for future action and policy development.

Research to focus on the tax implications of selling shares profitably. Some informal investors are very successful, however, when populations are surveyed representatively there are strong indicators that large numbers of investments are lost in whole or in part[21]. With that as the background, the returns and manner of exit for successful investments takes on greater importance. Informal investors pay more tax on their returns than other countries where informal investment is common. If we are interested in encouraging this type of risk capital --which has precious few substitutes -- the informal investors may be encouraged by better tax treatment on the exit side. In conjunction with the previous recommendation, there is little theoretical or empirical evidence about actual returns, successful methodologies, best practices, tax treatments, or losses.

Explore informal investment within the context of other disciplines which have acquired more scholarly attention such as entrepreneurship. More meaningful than any other characteristic, is the former entrepreneurial role played by a significant number of angels. Undoubtedly, this characteristic is central to understanding angels and its determination should occupy a large part of the thinking when designing future angel research. It also appears to be the essential ingredient in many of the corporate angels when their role is one of the successful entrepreneur spending the fruits of their labour. The development of cultural, cognitive and behavioural links between entrepreneurs and informal investors have yet to be fully explored, yet have the potential to explain actions and motivations more than the descriptive activities to date. Other disciplines which are currently being explored are finance, economics, and psychology, for example.

Encourage research depth and breadth to allow bases for comparison within the same research design and sampling methodology: Research efforts do not need to be so narrowly defined that we specify and isolate small groups for study. When research efforts narrowly isolate small groups for study, comparison between studies is difficult because research designs and sampling methodologies differ. Therefore, the results become meaningful only with respect to the specific group of people who were studied. The benefits that arise from highlighting the differences amongst populations are largely methodological in execution, but provide rich comparisons in understanding. Such comparisons may include: the diversity amongst habitual investors and novice investors; the differences between family investments and arm's length investors; cognitive comparisons between investors who have been entrepreneurs and those who have not; and so on. Breadth and depth of knowledge comes to the field by precisely *not* narrowly defining the group.

The issue of family investments needs to be revisited: In the informal venture capital classification, family and friends are often tossed aside as being less than arms' length and, therefore, not worthy of discussion by those interested in informal venture capital. Preliminary indications are, however, that habitual angels are making most of these investments[18]. Habitual angels are expected to have more experience and understanding of the informal venture capital process, so it is interesting that they are making informal investments to family. Furthermore, isolating this group does not fairly represent the significant contributions made by informal investors who know the entrepreneurs' characters and backgrounds very well by virtue of family relation. Knowledge about the entrepreneurs' backgrounds and credibility is shaping up to become an area worthy of significant study since exploratory indicators

[18] Farrell, 2000 (forthcoming). Babson Kaufmann Entrepreneurship Research Conference, Boston, MA.

show that better returns are achieved in ventures where previous knowledge of the entrepreneur exists. Furthermore, the reintroduction of family, friends and neighbours into our sample selection process produces a potentially rich source of diversity for comparison purposes, not only about the investment habits and motivations of all individuals who invest in well known acquaintances, but of the details of the relationships amongst the investors and investees.

Encourage development of representative sampling methodologies: When research is commissioned, funds need to be devoted to sampling methodologies which permit more inference since Canada's large geographic expanse does not allow us to easily draw conclusions from one pocket to another. At one time, difficulties locating angels for study was largely an issue of their invisibility. While their population is still hard to define, methodological advances such as random sampling from incorporation records have improved the representativeness necessary for most statistical inference. These methods are more expensive than convenience sampling techniques that do not permit inference to the wider population of angels. Furthermore, convenience samples require researchers and readers to make 'judgements' about the information since the method of collection does not permit statistical inference to the angel population in general.

Action research is another methodology to pursue. Action research occurs at the interface between the academy and the economy. It is similar to the case study method, but is more proactive and involves testing proposed remedies. At a local level, action research studies the problems and identifies remedies based on innovation and an understanding of the literature. The proposed remedies are tested on a small scale while researching the problem, the remedy and the results.

Expand the policy focus to investor-focussed, not just entrepreneur-focussed: In practice, the entrepreneur/informal investor relationship is very entrepreneur-focussed. Current interest emphasises the entrepreneurs' search for capital, the entrepreneurs' difficulty in finding angels, the entrepreneurs' need for assistance in developing business plans, and developing means of identifying and meeting angels. The CCIP program is essentially a means of finding angels for entrepreneurs' not visa versa. If interest in informal investors becomes investor-focussed, thinking will begin to emerge which focuses on the needs of investors. Currently, scant attention is paid to the high failure rates of possible investments, poor potential returns, poor actual returns, or exit opportunities. If entrepreneur/angel relationships are to be profitable and sustainable, there must be a focus by policy makers and researchers on the needs and requirements of *angels*, not just entrepreneurs. Failure to recognise angels' needs in the entrepreneur/angel relationship fails everyone.

Proprietary actions by those who are charged with promoting angels hinder research, development of better understanding, dissemination of opportunities as well as angels' prospects for finding better investments. Chambers and Boards of Trade should be encouraged to share their knowledge, understanding and wealth of understanding about angels.

Increase the volume of commissioned work: Aside from the anecdotes about specific angels, and two reports since 1995, all of the information being reported in the media is old. The industry needs new insights. Three key sources of information formed the bases for this report: academic research and reports within Canada, academic research from researchers beyond Canada, and journalistic articles and media stories. Much of the information is derived from press reports and journalistic accounts from the media. Though necessary and interesting, this type of information is anecdotal and not subject to the rigours of research efforts which would representatively and objectively evaluate observations and results.

To date, research in Canada has shown that a significant amount of investment activity is taking place. Riding and associates at Carleton University (Short, Blatt, Haines, DalCin, Duxbury, Safrata), Suret, Arnoux and Dorval at Laval, and the more recent works by Farrell at Saint Mary's University, and Lionaise and Johnstone in Cape Breton, are the academics interested in informal investment research in Canada. Amit produces substantive theoretical understanding about entrepreneurs and venture capital. Now that there is an appreciation for the magnitude and nature of the angel phenomena, it is reasonable to pursue why. Its importance suggests more research effort be devoted to angel motivations, syndication activities, and habitual behaviours.

5. SUMMATION

Angels are particularly well-suited to close the equity gap because they invest in smaller tranches and tend to invest at the seed and start-up phases of growth - stages that institutional and formal venture capitalists rarely consider. Geographically, angels are widely dispersed and experience-wise, they can provide value to the new firm.

It is easier, though not desirable, to investigate only large and sophisticated angels. Conducting research highlighting the activities of only extremely wealthy individuals who make spectacular investments which produce incredible returns is glamorous and is the ingredients of great hero stories. Its usefulness, however, is limited.

There are very good reasons to know more about the smaller, less sophisticated angels as they contribute capital to sectors where entrepreneurs have few other substitutes. "Institutional venture capitalists tend to finance the small number of young companies that can productively deploy large amounts of capital with the potential to produce major businesses. Angels ... tend to be the primary sources of money for the vast majority of corporate innovators in this country (the US), many of whom will be very productive, but will remain small businesse" (Pavey 1995).

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6.3 Canadian Web Sites

Mount Pearl CCIP Inc. - http://w.w.w.mtpearl.nf.ca

Canada Venture Capital Association - http://www.cvca.ca

VC Firm - http://www.torontovc.com

Industry Canada - http://strategis.ic.gc.ca

Halton Region, Business Development Centre http://www.haltonbusiness.com

Ventures West Inc. - http://www.ventureswest.com

Canadian Council for Small Business and Entrepreneurship - http://strategic.ic.gc.ca/SSG/mi0035e.html

Macdonald and Associates Limited - http://canadavc.com

'Angel Banker Club' - http://banakor-swisse.com

Carrefour Capital - http://www.carrefour-capital.com/

7 APPENDICES

7.1 INDEX

[1] A simple average of the numbers produces an average of greater than $75,000. However, the distribution of the responses includes a small number of large investments which inhibits inference to the larger population of angels because the responses do not follow the ?normal distribution curve.? Converting each response to its logarithm (a standard technique) produces a normally distributed curve which, when averaged and re-converted, produces a more inferential statistic.
[2] Languedoc is reporting on a study co-authored by Rod McNaughton, then a student at the University of Western Ontario, for the Association of Canadian Venture Capital Companies.
[3] Ducros (1993) makes an argument for a "critical mass of investors knowledgeable in information technology."
[4] For a detailed recent discussion of agency issues explored at the angel-investee level see van Osnabrugge 1998.
[5] For a personal biography of Jim McCambly, the persuasive labour leader who convinced governments to create the tax incentives, see Mayer, A. (1996, December 15). A $600 million man: It was labour leader Jim McCambly who persuaded Ottawa to launch a huge capitalist venture backed by tax credits. *The Toronto Star*.
[6] The most recent doctoral dissertation in the area of informal investors (van Osnabrugge 1998 from Oxford) used the venture capital decision making process (Tyebjee and Bruno 1984) as a template for his investigation, but did not involve any search activities.
[7] The entire proceedings of their seminar is included in the accompanying references.
[8] The developments in this stream of the world wide literature are substantial.
[9] Quote made by Ned Macaulay.
[10] The University of Calgary's MBA students have an average of six years business experience before returning to school implying a fair degree of maturity as well as taking the edge off of naivety.
[11] The author is currently considering the literature regarding this area as a stream of future research.
[12] For a review of what researchers had to do to get accurate reports of formal venture capital returns, see Bygrave, Fast, Khoylian, Vinvent and Yue's (1989) account of American returns' reporting by venture capital companies.
[13] The spectacular $10 billion acquisition of Newbridge Networks by a French telecommunications company was announced just at the time of this writing.
[14] At the time of this writing, the Atlantic Region work was replicated to add precision to the findings. The results were very similar to the original findings: about a third of investors made investments to family, about a third of investors lost a total investment to bankruptcy or failure, about 10 percent of angels were women, and about 15 percent of the companies formed in the Region indicated having funding from individuals outside the entrepreneurial team.
[15]To some extent, they do not have to be. It is widely recognised that VC hurdle rates are as high as they are because they must compensate for the losses (bankruptcies and total failures) and the living dead (viable businesses that are not expected to produce to the venture's expectations).
[16] A finding of the federal government's small business working committee report, *Breaking Through Barriers: Forging our Future,* as reported in Peterson, R. (1998). How is entrepreneurship different in Canada? *The Financial Post,* March 4.
[17] Individual comments in study of swift trust by Mason et al.
[18] Agency theory is concerned with the relationship that exists between a principal (the angel) and their agent (the investee) and the agent's motivations and incentives to act in the principals' best interests.
[19] Rick Norland, an investment intermediary, suggests entrepreneurs plan to spend 85% of their time over a six- to 12-month period when looking for angels. One of the key elements in this discussion is who will oversee the firm as the entrepreneur's attention is diverted from the firm (Riding 1997).
[20] The authors doctoral dissertation has approximately 300 academic references all related to developments in informal investment and angels.
[21] At the time of this writing, the preliminary results of a follow-up study about informal investment in Atlantic Canada confirmed earlier research that approximately one-third of informal investors lose at least one investment in its entirety.
[22] The following lists do not contain web sites found, press articles employed, or general interest or specialised magazine publications. Lists of these sources follow this section. This list of references contains only the canadian journals and reports as they are normally only those that enlist original research. The list of non-Canadian sources

follows.