



# **DOES GENDER MATTER?**

## **WOMEN BUSINESS ANGELS AND THE SUPPLY OF ENTREPRENEURIAL FINANCE IN THE UNITED KINGDOM**

**RICHARD T HARRISON**  
Centre for Entrepreneurship Research  
University of Edinburgh Management School

**COLIN M MASON**  
Hunter Centre for Entrepreneurship  
University of Strathclyde

**APRIL 2005**



## DOES GENDER MATTER? WOMEN BUSINESS ANGELS AND THE SUPPLY OF ENTREPRENEURIAL FINANCE

---

### ABSTRACT

*There is a substantial literature on the relationship between gender and access to finance, without any definite conclusions having been reached. Most of this research has been into access to debt finance. More recently, the focus of this research has broadened to examine women and venture capital. This paper extends this research further to examine the role of women in the business angel market, which is more important than the formal venture capital market in terms of both the number of ventures supported and total capital flows. Based on a detailed analysis of business angels in the UK, we conclude that women investors active in the market differ from their male counterparts in only limited respects.*

---

### INTRODUCTION

The role of gender in access to business finance has been the subject of extensive research, debate and policy concern in recent years as part of a wider interest in issues of women's entrepreneurship and business ownership (Gatewood et al 2003; Carter et al 2003; Ahl 2004). Reflecting the nature of the funding environment and the characteristics of the ventures established by women entrepreneurs, much of the debate on gender and finance has been concerned with access to loan finance, and the role of the banks in creating or perpetuating gender-based differences in access to finance (Buttner and Rosen 1988; 1989; Read 1998; Coleman 2000; Carter and Rosa 1998; Riding and Swift 1990; McKechnie et al 1998; Verhuel and Thurik 2001). Despite the volume of research, there is no unequivocal support for the idea that there are gender-based differences in access to finance: while several studies 'report discrimination ... it seems to be related to structural factors rather than gender *per se*' (Ahl 2004, 99). From a policy perspective, two fundamental questions remain unanswered in unequivocal terms: is there a real shortage of capital for women entrepreneurs (the funding gap), and to what extent are the constraints faced by women entrepreneurs due to the 'general business environment, a lack of information, firm characteristics, gender-based discrimination or other factors? (Koreen 2000, 4).

More recently, attention has shifted to the examination of a number of gender-related features of the venture capital market (Greene et al 1999; Carter et al 2003). Based on an assessment of the empirical evidence, on the demand-side, only a very small proportion of women-owned businesses raise venture capital. On the supply-side there very few women are involved in making investments, either as venture capital fund managers or as business angels. These features may be related: the limited participation of women as investors may go a considerable way towards explaining the limited use of venture capital as a financing source by women entrepreneurs. However, as the DIANA project notes, "missing

from research is an understanding about the interaction between the demand and the supply side for equity capital." (Brush et al 2004).

However, there has been very little consideration of women's access to angel financing (Amatucci and Sohl 2004), despite this being quantitatively more important as a source of venture capital (Sohl, 1999; 2003; Mason and Harrison, 2000) and as a stepping stone to build businesses to the point where they become attractive to venture capital investors (Freear and Wetzel 1990; Harrison and Mason 2000). For example, there is only very limited reference in the DIANA project (Brush et al 2004) to angels, and recent policy papers on women entrepreneurs' access to finance have made no reference to angel finance (e.g. Canada 2003). Nevertheless, there have been claims (frequently unsupported by direct evidence) that there are gender-based issues in access to business angel capital. For example, 'although finding and engaging angel investors is a challenge for anyone, women entrepreneurs have experienced particular difficulty' (Brush et al 2004, 56). This is attributed to two factors. First, women are less likely to have had prior entrepreneurial experience or a high level of managerial experience in a corporate setting and are hence less likely to participate in networks with high net worth individuals (what Verheul and Thurik (2001) refer to as the indirect effects underlying gender-based differential access to capital). Second, if women do establish such contacts they need to build a strong case for their capabilities and commitment, often without the benefit of an established relationship or trust engendered by longstanding relationships. Accordingly, there is an argument that an increase in the number and visibility of women business angels, including the development of women-only business angel networks (Hill et al 2004; Abramson 2001; Shaw 2001), would enhance the supply of finance to women entrepreneurs.

Against this background, the objectives of this paper are fourfold: to summarise key factors which might influence the relationship (if any) between gender and business angel investing; to analyse examples of women business angel activity; to provide the first-ever profile of the characteristics, motivation and investment criteria of women business angels, using data from a sample of investors in the UK; and to explore the extent to which women business angels are more likely to invest in women entrepreneurs. This study provides a first attempt to answer three key questions posed by the DIANA project on women in venture capital. First, are women business angels different from their male counterparts in terms of their backgrounds and demographic features? Second, do male and female business angels have the same approach to investment (e.g. sources of deal flow, investment criteria, evaluation processes, characteristics of investments)? Third, are women business angels more likely to invest in women-led ventures? Answers to these questions will be valuable both in guiding intervention to support women entrepreneurs and in supporting women entrepreneurs in their search for finance.

## CONTEXT

The existence of gender differences in a wide range of entrepreneurial contexts (including business ownership, growth and performance, access to finance, networking) is widely accepted, although individual studies vary in the extent of the differences identified (Ahl 2004; Bruni et al 2005; Koreen 2000). Less well-understood are the possible explanations for the gender-based differences observed. As Carter et al (2003, 72) observe 'there is no real shortage of academic research in the area. There is, however, a clear lack of cumulative knowledge and a failure to date to adequately conceptualise and build explanatory theories'. Ahl (2004, 34) goes further, arguing that the field of female entrepreneurship, as with entrepreneurship research in general, 'is so far rather a-theoretical. Most studies have aimed at cataloguing the properties of successful businesses or the traits of successful (and unsuccessful) entrepreneurs. Women's entrepreneurship has mostly been studied from the very limited perspective of the differences between men and women.' She goes on to argue that entrepreneurship is itself a male gendered concept which requires a particular gendered division of labour (Ahl 2004, 61).

**Figure 1 Ahl's expanded research framework for women's entrepreneurship**

	<b>Current research object</b>	<b>Expanded research object</b>
<b>Objectivist epistemology</b>	Individualist focus Essentialist assumptions	Add more factors Contingency studies Comparative studies
<b>Constructionist epistemology</b>	Studies of how women entrepreneurs construct their lives and businesses – how they 'do' gender	Studies of how social orders are gendered and of the mechanisms by which this gendering is constructed

Source: Ahl (2004, 185)

One consequence of this, widely reflected in the literature on gender and entrepreneurship, is to attribute problems (such as lower business growth performance or more problematic access to finance) to women instead of to social orders, and to emphasise the individual over the structural and situational. For Ahl (2004, 176-7) the current discourse on women's entrepreneurship sustains a social order which benefits men as a group compared to women as a group<sup>1</sup>, and, in emphasising the individualist

<sup>1</sup> This is seen in (a) the proclamation of women entrepreneurs as unusual, which sustains the idea of the 'masculine entrepreneur' and of entrepreneurship as a male gendered construct, (b) the idea of women's entrepreneurship as a lifestyle choice, which preserves man's primary right to a career, and (c) the advocacy of women's entrepreneurship as a solution to the glass ceiling problem, which '

perspective, diverts attention from structural and institutional arrangements. Her response is to advocate research which, by comparison with current research in the field, expands the research object and shifts the epistemological position (see Figure 1).

In terms of the research object, most current research has adopted an individualist focus (in entrepreneurship more generally as well as in women's entrepreneurship – see Shane 2004), approaching this with an objectivist epistemology, based on the position that 'judgements about [a topic] are objectively true or false, meaning that they are true or false independently of us, or of our perspectives, or opinions' (Blackburn 1995, 368; see also Putnam 1981; Rorty 1979; Brown 1987). This research is located in the top left quadrant of Figure 1. Within this epistemological perspective, it is possible to consider a change in the nature of the research object by, for example, shifting the focus from the individualistic perspective (the entrepreneur, the investor) to include factors 'outside' the individual entrepreneur/business, as Shane (2004) for example does in his 'individual-opportunity nexus'. This shift in research object places more attention on the relationships between entrepreneurs/businesses and wider contextual factors (for example, legislation, social norms, labour market structures, economic policies, financial market structures), and encourages greater emphasis on longitudinal and comparative studies where situational contexts may vary, while acknowledging that such research is subject to many difficulties in practice.

More radical is the shift in epistemological position advocated by Ahl (2004). This draws on Berger and Luckmann's (1967) discussion of the social construction of reality, and Lyotard's (1979/1991) development of the idea of local, time- and space-bound determinisms of social reality replacing the idea of grand narratives. However, it is more specifically grounded in Haraway's (1991) feminist argument for situated knowledge, which recognises that science is socially constructed and operates through argument and persuasion and that all knowledge is embodied in a position in time and space rather than standing outside this (as objectivism would suggest) (see also Code 1991). For Ahl (2004), the shift to a constructivist epistemology will require a re-examination of the separation of the categories of 'men' and 'women', not least on the basis that 'the reviewed research about women entrepreneurs showed very few differences between men and women anyway, so even if maintaining an essentialist position, there is not really a reason to study sex differences *per se*. It seems like a dead end for research.' (Ahl 2004, 187). More generally, this is supported by other recent calls for a greater recognition of the social construction of entrepreneurship which 'arises from universal processes of social construction – the narrative dramatic means by which actors coordinate actions and identities. Entrepreneurship, like the rest of social life, is a collaborative social achievement. The interactions of entrepreneurs and their stakeholders sustain and transform the nature of entrepreneurship' (Downing 2005, 196).

---

reinforces a social order where men support men in a homo-social pattern and acknowledges the discrimination of women in the corporate ladders' (Ahl 2004, 177).

Quite what this epistemological shift will look like in terms of the focus of and methodology for research is unclear. In the argument which follows, we respond partially to this call by examining *sui generis* the characteristics and behaviour of women business angels and the implications of these for the financing of women-led businesses in particular. However, because this is the first formal study of women business angel investors, we also include a comparison with male business angel investors drawn from the same sample frame<sup>2</sup>. If there are observable gender-differentiated differences in characteristics and behaviour, this will provide a stimulus to further research on the extent to which there is both a difference in the 'real world' of the woman business angel and a social order within which these relationships exist and are developed. If, however, there are few or no observable differences between men and women business angel investors, we may conclude, with Ahl (2004) and others, that 'gender' is itself a problematic construct and one that is not helpful in framing useful and interesting research questions. In this case, we will raise questions about both the most appropriate research designs and methodologies for further research in entrepreneurial finance and about the orientation and focus of the 'gender' theme in entrepreneurship research.

#### GENDER AND ACCESS TO CAPITAL

A consistent finding in previous studies of business angels is that there are very few women investors identified – typically fewer than 5% of the total (Table 1). Given that the majority of investors have entrepreneurial backgrounds, this in turn may reflect wider issues of gender differences in business start-up and ownership, business growth (and the related capital accumulation realised at exit) and exit: (although business start-up and ownership have been the focus of much of the women's entrepreneurship literature, there have been no studies of gender issues in the exit process and the only studies of exits included in Gatewood et al (2003) do not take a gender perspective). Attempts to explain the under-representation of women have relied upon a wide range of factors and explanations, but three groups in particular can be identified.

The first group of explanations relate to discrimination – in the case of the access to finance debate, in the financial markets and by financial institutions – which leads to differential treatment of women and men with otherwise equal abilities and preferences. However, the observation of difference is not in and of itself sufficient to support the diagnosis of discrimination, not least because of methodological deficiencies in the research on the financing of women-led businesses (Leitch et al 2005): first, there is a general absence of studies which have fully taken into account or controlled for the full range of factor which may influence a venture's success in raising finance (Read 1998); second, much of this

---

<sup>2</sup> It should be noted that this is not a matched pairs methodology in the strictest sense. This methodology has been used quite widely in studies of the financing of women entrepreneurs and involves matching samples of male and female businesses on a range of attributes in order to eliminate the influence of structural factors in order to reveal the effect of gender (e.g. Riding and Swift, 1990; Read, 1998). In the absence of any prior information on investor characteristics we had no criteria on which to effect a meaningful matching.

Table 1. Proportion of women business angels: international comparisons

% of women business angels	Country	Source
5%	New Zealand	Infometrics Ltd, 2004
8%	Scotland	Paul et al, 2003
5%	Germany	Stedler and Peters, 2003
5%	UK	InvestorPulse, 2003
3%	Norway	Reitan and Sørheim, 2000
5%	Finland	Lumme et al, 1998
1%	UK	Mason and Harrison, 1994
2%	Canada	Riding et al, 1993
4%	USA	Gaston, 1989
2%	USA – East Coast	Haar et al, 1988

research, as discussed above, is predicated on the notion of 'difference', and assumes that male entrepreneurship is the benchmark against which to judge women's entrepreneurship (Carter and Brush 2004, 13); third, most previous studies of the financing of women-led ventures have focused on the supply of finance, and relatively few have examined either the gendered supply of finance (but see Read (1998) for an exception) or the demand side of transactions from a female perspective (Amatucci and Sohl 2004 is an exception); fourth, a high proportion of the research that has been conducted has been based on North American experience, which may not readily transfer to other contexts (Ahl 2004). What does emerge from this research is the suggestion that structural issues (the size, age and type of business – Coleman 2000; Fabowale et al 1995) are relatively more important than gender issues, and gender differences are fine nuances rather than radical differences: women may, for example, make fewer applications for loans (Orser and Connell 2005), have broadly similar success rates as men in gaining offers of finance, but this may be on less favourable terms (Coleman 2000; McKechnie et al 1998; Riding and Swift 1990).

The second class of explanations rests on gender differences in abilities and preferences. This has been advanced more generally as an explanation for occupational self-selection (Polackeck 1981), which gives rise to the glass ceiling effect, and underlies a number of studies in entrepreneurship. These suggest that levels of entrepreneurial self-efficacy are higher in males than females (Kourilsky and Walstad 1998; Matthews and Moser 1995; 1996), although some commentators do suggest that this reflects the fact that men are socialised into entrepreneurship to a higher degree than are women (Scherer et al 1990). However, there is little to suggest that there are systematic gender-based differences in start-up motivations and intentions (Ahl 2004). However, until further well-grounded research is available, apparent men-women differences, reflected for example, in women's lower stock of resources (both human and financial capital), women's lower levels of meaningful business experience, family background and social roles (with women socialised into the caring/nurturing role), and women's different intentions in establishing a business (in response to

labour market or domestic subordination, for work-family balance or as a feminist move – Goffee and Scase 1983) may play a role in accounting for these differences (Carter and Brush 2004).

A third set of explanations attributes these differences to the fact that women may be less effective than men in competitive environments, even if they are able to perform similarly in non-competitive environments: 'this fact will reduce the chances of success for women when they compete for new jobs, promotions, etc' (Gneezy et al 2003, 1049). In a series of controlled experiments, Gneezy et al (2003) concluded that in incentive systems which reward only the winner, and for mixed-gender groups, there is a significant increase, relative to the benchmark, in male performance, but not in female performance. This is not attributable to the uncertainty of the payment, through gender differences in risk aversion. Nor is it due to an absence of competitiveness in the women participants: in single-sex competitions, women participants improve their performance relative to both the benchmark level and to that recorded in mixed-gender situations, with the result that the performance gap between men and women is significantly reduced.

This resonates with Fels' (2004a; 2004b) recent argument that women may lack ambition (a striving for mastery in a field), in that ambitions held in youth are suppressed and attenuated by adulthood, and experience a lack of recognition (a wish to be appreciated for that mastery), which reinforces the absence of ambition. The problem, as Fels sees it, is that over time, recognition dries up, and the pervasive climate of non-recognition leads women to 'seek sanctuary on the higher ground of internal satisfaction: they look for rewards in the work itself, not in fame, honor, or money' (Stansell 2004). In other words, 'the daily texture of women's lives from childhood on is infiltrated with micro-encounters in which quiet withdrawal and the ceding of available attention to others is expected – particularly in the presence of men' (Fels 2004a). As a result, there is at work a systemic process of role socialisation and acculturation, which is reflected in the positions women occupy and the roles they play. Fels' sociological and psychological arguments reinforce the conclusions of Gneezy et al's (2003) work, and suggest that in a competitive environment women will perform differently, and less well, in mixed-sex groups and contexts. This carries across into entrepreneurship contexts, and suggests that where gender-based differences are observed, it may not be because of differences in abilities and preferences or discrimination in the absence of such differences, but because of differences in the effectiveness of women in competitive, particularly mixed-gender, environments.

This has implications for the development of social capital as the basis for engaging in entrepreneurial activity. For some, what Fels (2004a) sees as a problem - the lack of ambition and the 'gender recognition differential' - is the basis for an alternative approach based on the development of a more cooperative way of working and sharing recognition through an emphasis on women's relationality and connectedness (Gilligan 1982). There is evidence to suggest that gender and network roles are related in the development of social capital: networks with a high percentage of

women members are more likely to provide support to other members. As Wellman and Frank (2001, 252) express it, 'it appears that a high percentage of women in a network potentiates the entire network to be more supportive. Or, perhaps egos at the center of such networks have consciously organized their networks to provide more support'. Furthermore, there is evidence to support an empirical generalisation that 'women express, men repress': in other words, women interact in networks face to face by exchanging emotional support, while men interact side by side by exchanging goods and services (Perlman and Fehr 1987; Moore 1990).

Taking these observations on competition, ambition and network roles and behaviours together provides a framework for exploring some of Ahl's (2004) suggestions for the repositioning of gendered entrepreneurship research, which goes beyond simply using gender as another factor or variable to be included in a research design.

## METHODOLOGY

The difficulties in identifying and obtaining information from business angels are well documented (e.g. Mason and Harrison, 1994: 71-76). Business angels are an invisible population and they are not listed in any directories. As a consequence, researchers are often forced to use samples of convenience, which may be biased towards certain types of investor. These problems are compounded in the case of women business angels because of their scarcity: studies from a variety of different countries consistently show that women business angels comprise fewer than 5% of all business angels (Table 1).

For the purposes of this study women business angels were identified and contacted through business angel networks (BANs) – organisations that enable entrepreneurs seeking finance and investors seeking investment opportunities to connect. Of the 20 BANs that responded to our initial approach, only 13 reported that they had any women investors. These BANs had a total of 25 women business angels. A further two BANs responded that they had significant numbers of women registered (34 and 44 respectively) but could not separately identify those who were private investors from those who were representing organisations (e.g. fund managers). These 15 BANs were then sent self-completion questionnaires for onward transmission to all of their women investors and to an equal number of randomly selected male business angels. The questionnaire covered the following: personal and employment backgrounds, investment motivation, investment preferences, investment activity (types of investment, frequency), sources of deal flow, deal evaluation factors, method of investing (independent, ad hoc syndicates, formal syndicate membership), value-added contribution and attitude to investing in women-owned businesses. We obtained 21 completed questionnaires from women and 19 from men. Assuming that every recipient of the questionnaire was an active business angel this gives a response rate of 20.4% for women and 18.4% for men on a single cycle survey methodology. However, if we assume that the two BANs which could not differentiate who amongst the women registered with them were angel

investors each had the average number of women angels (2) then the response rate for women angels would be 72.4%. The 'true' response rate is somewhere in between, and represents a relatively good response for a postal survey.

### PERSONAL AND EMPLOYMENT BACKGROUND<sup>3</sup>

Male and female business investors share many common characteristics in terms of their demographics, employment and financial backgrounds. However, there are also some important differences. Women investors are relatively younger: 38% are in the 35-44 age band compared with 16% of men, while 47% of men are 55 and over compared with 29% of women (Table 2). Both groups are well educated with over three-quarters having a first degree and over one-third having a Masters degree. Women are slightly more likely to have professional qualifications (62% cf. 42%) (Table 3).

Table 2. Age

	women		men	
	number	%	number	%
Less than 35	-		-	
35-44	8	38.1	3	15.8
45-54	7	33.3	7	36.8
55-64	6	28.6	9	47.4
65 and over	-		-	

Table 3. Education

	women		men	
	number	%	number	%
First degree	16	76.2	15	78.9
Masters degree	8	38.0	7	36.8
PhD	0	-	1	5.3
Professional qualifications	13	61.9	8	42.1
none	3	14.3	2	10.5

Both male and female investors have a diverse working experience in terms of type of company, industry sector and function. Men have had a wider range of experience in terms of company size and type (Table 4). However, women have worked in a wider range of industries (Table 5).

Moreover, women are much more likely than men to have worked in business services (71% cf. 37%). In terms of functional experience, women are more likely to have expertise in HR (53% cf. 5%) and marketing (23% cf. 0%) (Table 6). In terms of current economic status women are more likely to be a partner in a professional firm (14%) or in

<sup>3</sup> Copies of the detailed tables are available from the authors on request

the 'other' category (e.g. 'career break', 'mother', 'CEO of investee company', 'full time investor') (19%): there were no male investors in either category (Table 7).

Table 4. Company experience

	Women n=20		Men n=19	
	Number (%) with this experience	Median length of experience and range (years)	Number with this experience	Median length of experience and range (years)
Senior management experience in small company	11 (52.4%)	12 2-22	13 (68.4%)	15 3-30
Senior management in medium sized company	7 (33.3%)	7 6-16	8 (42.1%)	5 2-15
Senior management in a large company	7 (33.3%)	7 2-30	10 (52.6%)	11 3-25
Senior management in public sector	2 (9.5%)	15 10-20	2 (10.5%)	2
Professional expertise (e.g. consultant, accountant, lawyer)	8 (38.1%)	9.5 5-20	10 (52.6%)	6.5 2-35
mean	1.75		2.26	

Table 5. Industry experience

	women		men	
	number	%	number	%
Agriculture, forestry, fishing, mining	4	19.0	5	26.3
Property, construction	8	38.1	3	15.8
Manufacturing	8	38.1	9	47.4
IT, electronics, communications	7	33.3	7	36.8
Retail and wholesale distribution	5	23.8	7	36.8
Transport	3	14.3	2	10.5
Hotels, restaurants, leisure	5	23.8	2	10.5
Banking and finance	6	28.6	6	31.6
Business services	15	71.4	7	36.8
Water, electricity, gas	2	9.5	1	5.3
Public sector	3	14.3	0	-
Health and welfare services	2	9.5	1	5.3
Other industries	1	4.8	3	15.8
Total/average	69	3.79	53	2.79

It is well-established that a majority of business angels have entrepreneurial backgrounds. This is also found here, with 62% of women and 63% of men having founded one or more businesses (Table 8a). The average was 2.15 businesses started by women and 2.3 by men (Table 8b). However, participation by women in a management buyout or buyin was much lower than for men (9.5% cf. 31.6%) (Table 9).

Table 6. Functional areas of expertise

	Women (n=19)		Men (n=19)	
	number	%	number	%
General management	18	94.7	16	84.2
Financial management	8	42.1	10	52.6
Sales	5	26.3	5	26.3
Marketing	8	42.1	5	26.3
Production	1	5.3	1	5.3
Human relations	10	52.6	1	5.3
Research and development	0	-	2	10.5
Legal	2	10.5	2	10.5
Other	5	25.3	0	-
No response	(2)		(-)	

Table 7. Current economic status

	women		men	
	number	%	number	%
Retired	1	4.8	3	15.8
Salaried employee in large company	0	-	2	10.5
Working in own/family business	6	28.6	6	31.6
Self-employed consultant	7	33.3	8	42.1
Partner in professional firm	3	14.3	0	-
other	4	19.0	0	-

Table 8a. Prior experience of founding a business

	women		men	
	number	%	number	%
yes	13	61.9	12	63.2
no	8	38.1	7	36.8

Table 8b Number of start-ups

	women		men	
	number	%	number	%
one	6		3	
2-3	5		7	
4-5	0		2	
6-10	1		0	
No response	1		-	
mean	2.15		2.3	

Table 9. Participation in Management Buyouts or Management Buyins

	women		men	
	number	%	number	%
neither	19	90.5	13	68.4
MBO only	2	9.5	4	21.1
MBI only	0	-	0	-
both	0	-	2	10.5

Finally, in terms of wealth, there was little difference in salary levels (Table 10). However, male business angels had a wider distribution of net worth (Table 11). As a result, men dominated both ends of the distribution: 16% of men had net worth of less than £250,000 compared with no women and 47% had over £1m in net worth compared with 28% of women.

Table 10. Annual salary (all sources)

	women		men	
	number	%	number	%
Less than £50,000	5	27.8	7	36.8
£50,000 - £74,000	4	22.2	4	21.0
£75,000 - £99,000	3	16.7	2	10.5
£100,000 - £249,000	4	22.2	4	21.0
£250,000 - £499,000	1	5.6	1	5.3
£500,000 and over	1	5.6	1	5.3
No response	3	16.7	-	

Table 11. Net worth (excluding principal residence)

	women		men	
	number	%	number	%
Less than £50,000	0	-	1	5.3
£50,000 - £99,000	0	-	1	5.3
£100,000 - £249,000	1	5.6	1	5.3
£250,000 - £499,000	5	27.8	0	-
£500,000 - £749,000	3	16.7	4	21.0
£750,000 - £999,000	4	22.2	2	10.5
£1 million and above	5	27.8	9	47.4
No response	3	-	1	-

Sources of investment funds were diverse for both male and female investors. However, women were relatively more likely to be investing from inheritance, salary and from spouse/partner wealth and less likely to be investing from family business wealth or a lump sum (which includes business exit) (Table 12).

Table 12. Source of investment funds

	women		men	
	number	%	number	%
Inherited	7	33.3	4	21.0
Divorce settlement	0	-	0	-
Salaried employment, incl stock options, bonuses	11	52.4	7	36.8
Investment income	9	42.9	10	52.6
Own business	7	33.3	5	26.3
Family business	0	-	3	15.8
Lump sum (incl. Business disposal)	4	19.0	7	36.8
Husband or wife/life partner	2	9.5	0	-
Other	0	-	1	5.3

Note: respondents could give more than one response

## INVESTMENT MOTIVATION

The evidence on the motivation for investing in unquoted companies confirms what is now well established, that business angels are primarily motivated by two factors, first, by the satisfaction from being involved in the entrepreneurial process and second, by financial considerations (Table 13). Although there are no significant differences between male and female investors in terms of motivation, there are some subtle differences in emphasis. In particular, women are more likely to be motivated by the desire to support the next generation of entrepreneurs (25% considered this to be 'very important' compared with just 5% of males) and to support socially beneficial products or services (50% of women thought this was 'quite important' or 'very important' compared with 11% of males and only 45% considered it unimportant compared with 89% of men). Women also gave more emphasis to 'a way of having fun with my money' (20% considering it to be 'very important' compared with 5% of men)

Table 13. Motivation for being a business angel

	Women N=20	Men N=19
To support the next generation of entrepreneurs	2.10	2.68
Personal satisfaction from being involved with entrepreneurial businesses	1.45	1.47
Potential for high capital appreciation	1.50	1.58
To help friend(s) set up in business	2.60	2.89
For current or future income (e.g. dividends, fees)	1.80	1.95
Support socially beneficial products or services	2.20	2.84
A way of having some fun with my money	1.95	2.32
For positive recognition in the community	2.60	2.89
For non-financial perks, privileges, etc	2.70	2.95
To make use of tax breaks	2.05	2.16

1 = very important, 2 = quite important, 3 = not important

## INVESTMENT PREFERENCES

The evidence again corroborates previous research. Business angels are most interested in investing in early stage businesses – that is, businesses that have started trading and secured some initial sales. This is followed by established businesses and start-ups. There are no gender differences in preferences, although male investors are more willing to consider all stages of business development as indicated by their higher mean scores across the board (Table 14).

The vast majority of investors of both sexes say that they have an interest in investing in technology sectors (90% of women and 94% of men) (Table 15). However, we need to interpret this finding with some caution. When asked to indicate their interest in specific sectors the majority did not report a 'very strong interest' in any sector and four males and one female never reported more than a 'moderate interest' in any industry. Nevertheless, there are some noticeable differences in score and ranking

between males and females in terms of their interest in specific technologies (Table 15). There are two technologies which women express a much higher interest than men: environmental technologies (the highest ranked technology amongst women but 5<sup>th</sup> equal for men) and creative industries (4<sup>th</sup> vs. 10<sup>th</sup>). Men express much stronger interest in electronics (ranked 2<sup>nd</sup> by men and 10<sup>th</sup> by women). Both men and women have strong interest in software and healthcare and low interest in computer hardware and semi-conductors.

Table 14 Investment focus – stage of business

	Women	Men
Seed (pre-start-up) financing	1.95	2.37
Start-up financing	2.95	3.11
Early stage expansion financing	3.45	3.47
Expansion financing for established firms	2.75	3.16
Rescue financing	1.95	2.11
Management buyouts	2.50	2.63
Management buyins	2.35	2.74

1 = no interest, 5 = strong interest

Table 15. Interest in investing in technology businesses?

	women		men	
	No.	%	No.	%
Yes	18	90.0	17	94.4
No	2	10.0	1	5.6
No response	(1)		(1)	
For those investors expressing an interest, their interest in specific technology sectors (1=no interest, 5=strong interest)	Mean score	% with strong/very strong interest	Mean score	% with strong/very strong interest
Communications technologies	2.67	1/18	2.53	3/17
Computer hardware	1.50	0	1.94	1/17
Internet	2.50	5/18	2.53	3/17
Semi-conductors	1.44	1/18	1.62	0
Software	3.05	6/18	2.94	6/17
Electronics	2.11	2/18	2.82	5/18
Biotechnology	2.67	5/18	2.41	3/17
Medical instruments	2.83	6/18	2.71	5/17
Pharmaceuticals	2.39	6/18	2.41	3/17
Healthcare	2.94	7/18	2.75	6/16
Environmental technologies	3.33	10/18	2.53	3/17
Creative industries	2.89	4/18	2.35	3/17

## INVESTMENT ACTIVITY

Given the methodology for identifying business angels it is not surprising that business angel networks featured prominently as a major source of investment opportunities. Putting this aside, the main sources of deal flow

are business associates and active personal search (Table 16). The ranking of sources of deal flow is similar for both male and female investors. However, males give greater emphasis to active personal search (72% cf. 45%) and women make greater use of business associates (80% cf. 61%), accountants (45% cf. 22%) and lawyers (25% cf. 6%).

Table 16. Main sources of information on investment opportunities

	Women (N=20)		Men (N=18)	
	No.	% of total	No.	% of total
Media: magazines, newspapers, etc	7	35	6	33
Banks	3	15	1	6
Active personal search	9	45	13	72
Friends	8	37	8	44
Business associates	16	80	11	61
Contacted by entrepreneurs seeking finance	9	45	9	50
NBAN	3	16	8	44
Other business angel networks	17	85	16	89
Family	3	15	2	11
Accountants	9	45	4	22
Lawyers	5	25	1	6
Stockbrokers	3	15	0	-
Venture capital funds	5	25	3	17
Other	1	5	1	6

The male business angels are slightly more active investors, making a total of 59 investments between January 2001 and mid 2004 (mean of 3.3 and median of 2.5) compared with 51 investments by women (mean of 2.6; median of 2.0). The proportion of angels who had made no investments was similar (15% women and 11% men). The women business angels have invested c£1.85m (with two non responses) over the period. This is more than the amount invested by men which is around £1.3m. However, the amount invested by women is skewed by two major investors (£410,000 and £330,000). The two samples contain identical numbers of big investors, with seven women and seven men each investing over £100,000.

The proportion of the investment portfolio that is accounted for by angel investments varies widely amongst both men and women. However, women are relatively more weighted towards angel investing with angel investments accounting for an average of 20% of their overall investment portfolio compared with 10% for men.

Calculating yield ratios – investments made as a proportion of deals received - is very difficult. Some investors are precise about the number of investment opportunities that they have seen whereas others are very imprecise, reporting that they have seen 'hundreds' of opportunities. Women have received slightly fewer investment opportunities than men, but seriously considered marginally more (172 cf. 157) and, as noted

above, made slightly fewer investments. Thus, the overall yield rate for women business angels was higher than for men, with women making one investment for every 32 opportunities received compared with 28 for men. But given the imprecision of many of the responses concerning the number of opportunities received this difference should be interpreted cautiously. The data on the number of opportunities seriously considered is more reliable. This indicates that women made one investment for every 3.4% that they seriously considered, compared with 2.7% for men.

Previous research has consistently identified business angels as being opportunity constrained, unable to invest as often as they would like. This constraint affects both male and female angels equally, with 60% of women and 61% of men claiming that they would have made more investments had suitable investments been available. Amounts available for further investment vary widely: the women angels have at least £4.8m available to invest (and two 'don't knows') compared. £1.8m for men (and one 'don't know'), but the figure for women is hugely influenced by one investor with £1.5m-£2m available. If this is excluded the difference is much smaller. Moreover, there is little difference between males and females in terms of the maximum proportion of their overall investment portfolio that they would want to invest in unquoted companies (at around 20%).

Table 17. Factors which limit your ability to invest as frequently as you would wish

	Women (n=21)		men	
	mean	% citing as major	mean	% citing as major
Do not get sufficient flow of investment opportunities	1.90	28.6	1.84	26.3
Lack of time to search for investment opportunities	2.05	33.3	1.89	21.1
Poor quality of investment opportunities that I see	2.33	52.4	2.10	47.4
My narrow investment criteria	1.62	19.0	1.79	26.3
Lack of expertise in evaluating investment opportunities	1.38	9.5	1.21	0
Lack of experience in cutting investment deals	1.62	19.0	1.16	0
Size of existing investment portfolio takes up too much time	1.81	28.6	1.21	0
Lack of available capital	1.76	19.0	1.84	26.3
Lack of time to evaluate investment opportunities	1.90	28.6	1.68	10.5
Lack of time to support investee companies	1.86	23.8	1.68	10.5

The investment constraints that are cited are similar for both men and women, notably poor quality of investment opportunities, followed some way back by lack of time to search for opportunities and lack of sufficient deal flow (Table 17). Women are more likely than men to acknowledge

the role of personal factors, notably their lack of experience in cutting investment deals and time taken by existing portfolio.

Indeed, over half of all investors (56% of men and 55% of women) have an upper limit on the number of investments that they will hold is similar for both. For women this limit is around five investments (median) compared with six by men. The reasons are insufficient time to play a hands-on role – emphasised by all men (11/11) but only 7 out of 11 women - and insufficient time to monitor investments (8/11 men, 7/11 women). Similar proportions of male and female investors are also constrained by their lack of knowledge of particular sectors, technologies or markets (70% of women and 68% of men). However, this has a more dramatic effect on those women business angels who are constrained by this lack of knowledge, rejecting some 75% (median) of the investments that they see for this reason, compared with just 50% for the men who are similarly constrained.

Respondents were asked to report the outcomes of any investments that they had exited from in the previous three years. This generated information on 22 exits by 12 women business angels and 25 exits from 14 male business angels. Half of the exits by women were either partial or total losses compared with 60% amongst men. At the other end of the returns spectrum 20% of exits by male investors achieved a six times multiple or more compared with just 9% for women. Women had more exits in the one to five times multiple range (23% cf. 12% for male investors) (Table 18). These data might tentatively suggest a slightly more cautious approach to investing by women business angels but a much bigger dataset is needed for this to be confirmed.

Table 18. Investment performance

performance	Women		men	
	number	%	number	%
Total loss	8	36.4	12	48.0
Partial loss	3	13.6	3	12.0
Breakeven	4	18.2	2	8.0
1-2 times multiple	4	18.2	2	8.0
3-5 times multiple	1	4.5	1	4.0
6-10 times multiple	0	-	3	12.0
Over 10 times multiple	2	9.1	2	8.0
total	22	100	25	-

## INVESTMENT CRITERIA

Most investors have clearly defined investment criteria. Amongst women this proportion is 76% while amongst men it is 89% (Table 19). However, most investors would be prepared to relax these investment criteria in certain circumstances. The main reason for relaxing investment criteria is the high credibility of the entrepreneur/management team (Table 20). However, men are more likely than women to relax their investment

criteria if a small investment required and are more willing to rely on intuition/gut feeling.

Table 19. Clearly defined investment criteria

	women		men	
	No.	%	No.	%
Yes	16	76.2	17	89.5
No	5	23.8	2	10.5

Table 20 Circumstances in which investors may invest outside these investment criteria

	Women (n=21)		Men (n=19)	
	no	% of investors willing to relax criteria	no	% of investors willing to relax criteria
None – never invest outside these criteria	4	19.0	2	10.5
High credibility of entrepreneur/ management team	11	52.4	13	68.4
Convincing presentation by entrepreneur	3	14.3	6	31.6
Prospect of very high returns	4	19.0	4	21.1
Small investment required	6	28.6	9	47.4
Recommendation from trusted source	6	28.6	5	26.3
Referral from business angel network	2	9.5	4	21.1
Availability of co-investor/syndicate	6	28.6	7	36.8
Location very close to investors' home/workplace	5	23.8	3	15.8
To diversify portfolio of business angel investments	0	-	1	5.3
Opportunity to syndicate with other investors	2	9.5	1	5.3
Intuition/gut feeling	5	23.8	9	47.4

Reasons why business angels reject investment opportunities revolve around three main issues associated with the entrepreneur, product/service, market and finances (Table 21). Both male and female investors placed similar emphasis on what were the most and least important factors leading to the rejection of an investment opportunity.

Indeed seven of the top nine factors were common to both men and women, including:

- lack of rapport with the entrepreneur,
- no unique selling point for the product or service,
- entrepreneurs who are not financially committed
- potential customers not identified

Table 21. Investment appraisal – factors that would lead to rejection of an investment opportunity

	Women			Men		
	Mean score	No. citing rarely	No. citing always	Mean score	No. citing rarely	No. citing always
<i>Entrepreneur/management team</i>						
Gaps in management team	<b>2.05</b>	3/19	4/19	<b>1.89</b>	6/19	4/19
Lack of relevant experience	<b>2.11</b>	2/18	6/18	<b>2.26</b>	1/19	6/19
No rapport with lead entrepreneur	<b>2.63</b>	1/19	13/19	<b>2.74</b>	1/19	15/19
Previous business failure of lead entrepreneur	<b>1.72</b>	8/18	3/18	<b>1.63</b>	10/19	3/19
<i>Finance</i>						
Financial projections unrealistic	<b>2.32</b>	4/19	10/19	<b>2.42</b>	1/19	9/19
Too much capital required	<b>2.26</b>	4/19	9/19	<b>2.42</b>	1/19	9/19
Insufficient equity offered	<b>2.11</b>	3/19	5/19	<b>2.16</b>	4/19	7/19
Only a moderate return likely	<b>2.21</b>	4/19	8/19	<b>2.00</b>	6/19	6/19
Entrepreneurs not financially committed	<b>2.42</b>	2/19	10/19	<b>2.21</b>	4/19	8/19
<i>Product</i>						
No unique selling point/me too product	<b>2.55</b>	2/20	13/20	<b>2.37</b>	2/19	9/19
Product/service needs further development	<b>2.00</b>	5/19	5/19	<b>1.79</b>	7/19	2/19
Do not understand the technology	<b>2.05</b>	4/20	5/20	<b>2.00</b>	5/19	5/19
<i>Market</i>						
Insufficient market research available	<b>2.00</b>	2/19	2/19	<b>1.79</b>	7/19	3/19
Route to market not clear	<b>2.30</b>	2/20	8/20	<b>2.11</b>	3/19	5/19
Potential customers not clearly identified	<b>2.35</b>	2/20	9/20	<b>2.26</b>	3/19	8/19
Lots of competitors	<b>2.25</b>	1/20	6/20	<b>2.00</b>	4/19	4/19
Do not know the industry/market	<b>1.95</b>	5/20	4/20	<b>2.00</b>	5/19	5/19
<i>Presentation</i>						
Poor presentation to potential investors	<b>1.75</b>	7/20	2/20	<b>1.74</b>	7/19	2/19
Missing information in business plan	<b>1.62</b>	7/16	1/16	<b>1.69</b>	7/18	2/18
<i>Other factors</i>						
Location of business more than an hour from my home	<b>1.35</b>	13/20	0/20	<b>1.79</b>	7/19	2/19
No obvious exit route	<b>1.95</b>	6/19	5/19	<b>1.61</b>	10/18	3/18

1 = rarely a rejection factor; 3 = always a rejection factor

- unrealistic financial projections
- route to market unclear
- too much capital requires

Even if an opportunity passes an investor's investment criteria and appraisal it will not occur if the negotiation process is unsuccessful. The majority of investors have failed to agree terms and conditions on at least one occasion. However, male business angels are much more likely to have failed to agree terms and conditions (84% of males and 48% of women) and have failed to do so on more occasions (average of 2.4 times compared with 2.3 times). There are some differences in the reasons for this failure, with women more likely than men to fail to agree the price, but the small numbers involved means that any differences should be treated cautiously (Table 22).

Table 22. Reasons which prevented investments from being made

	Women (n=10)		Men (n=16)	
	No.	%	No.	%
Could not agree on price	6	60.0	5	31.2
Could not agree on shareholding structure	4	40.0	4	25.0
Could not agree on investor's hand-on contribution to the business	3	30.0	4	25.0
Could not agree on exit strategy	-	-	2	12.5
Could not agree on remuneration issues	1	10.0	1	6.2
Could not agree on composition and power of the Board of Directors	2	20.0	3	18.8
Could not agree on investors right of veto	-	-	3	18.8
Could not agree on investor's right to information	2	20.0	2	12.5
Other sources of disagreement	1	10.0	3	18.8

## ATTITUDE TO INVESTING IN WOMEN-OWNED BUSINESSES

The women in the sample are marginally more likely to have invested in businesses owned and managed by women (37% cf. 21%), but the difference is not significant (Table 23). In numerical terms, women investors have made substantially more investments in women entrepreneurs (19 cf. 5) but this is skewed by one particular investor who had made such 10 investments.

Table 23. Have you invested in any businesses owned and managed by women entrepreneurs?

	Women (n=19)		Men (n=19)	
	No.	%	No.	%
No	12	63.2	15	78.9
Yes	7	36.8	4	21.0
No response	(2)		-	

Both male and female investors claim to be gender-neutral in their investment evaluations (Table 24). Just two women investors said that they would be willing to relax their investment criteria to consider a female entrepreneur and three said that they would be willing to help female entrepreneurs become investment ready. Just one man said he would be more willing to help a woman entrepreneur to become investment ready. Moreover, 70% of women investors have no interest in being part of a women-only investment network (Table 25).

Table 24. Approach to investing in women owned businesses

	Women (n=19)		Men (n=18)	
	No.	%	No.	%
It makes no difference: my evaluation of investments is gender neutral	18	94.7	18	100
If I come across a woman-led business that falls outside my investment criteria I am prepared to relax some of them in order to consider it as a potential investment	2	10.5	0	
I adopt a more rigorous approach when evaluating women-led businesses	1	5.3	0	
I adopt a less rigorous approach when evaluating women-led businesses that fall within my investment criteria	0	-	0	
I would be more willing to help a woman-led business to become investment ready than a male-led business	3	15.8	1	5.6
No response	(2)		(1)	

Multiple responses possible

Table 25. Interest amongst women business angels in being part of a women-only business angel network

	Women (n=20)	
	No.	%
No	14	70.0
Yes	3	15.0
Not sure	3	15.0
No response	(1)	

## INVESTOR SUPPORT MECHANISMS

Male and female investors did diverge in their attitudes to appropriate forms of investor support (Table 26). Male investors were most responsive to support that might improve the quality of their deal flow. They gave high support to improved angel networks to provide better deal flow (63%

cf. 37% of women), investment ready schemes (53% cf. 37%) and the opportunity to co-invest with venture capital funds (42% cf. 26%). Women investors, in contrast, placed more emphasis than men on tax incentives, especially bigger capital gains tax relief (58% cf. 37% of men) and the ability to roll-over capital gains (52% cf. 21%).

## NETWORKING

Men are slightly more self-contained than women. Specifically, men are less likely than women to always to invest with others (50% of women cf. 21% of men) (Table 27). Men are also marginally less likely to use professional advice for deal appraisal or deal structuring (47% cf. 57%) (Table 28). However, male investors are better networked than women in the sense of knowing more business angels: 58% of males know more than 10 other angels compared with 48% of women (Table 29). However, what is perhaps more surprising is the relatively small numbers of other business angels that are known to the respondents of either gender. For example, only 5% of both male and female business angels personally know more than 50 other angels. This might simply reflect the

Table 26. Forms of support and incentives that would encourage angels to make more investments

	Women (n=19)		Men (n=19)	
	No.	%	No.	%
Non response	(2)		-	
Technical support with due diligence	9	47.4	7	36.8
Technical support with valuation and structuring of investments	7	36.8	6	31.6
Improved business angel networks to provide better quality deal flow	7	36.8	12	63.2
Opportunity to join an angel syndicate	4	21.1	6	31.6
Opportunity to co-invest with venture capital funds	5	26.3	8	42.1
Bigger front-end tax reliefs	12	63.2	10	52.6
Bigger capital gains tax reliefs	11	57.9	7	36.8
Ability to roll-over capital gains	10	52.3	4	21.1
Equity guarantee scheme	4	21.1	5	26.3
Investor ready schemes to improve the quality of investment opportunities	7	36.8	10	52.6
Other	1	5.3	-	-

Table 27. Do You Invest On Your Own Or With Others?

	Women (n=20)		Men (n=19)	
	No.	%	No.	%
No response	(1)		(-)	
Always invest on my own	4	20.0	5	26.3
Sometimes invest on my own	6	30.0	10	52.6
Always invest with others	10	50.0	4	21.1

balkanisation of the angel market into lots of local markets, although it could equally suggest that business angels are not as widespread as we have previously thought.

Less surprising is that few of the respondents know other women business angels (Table 30). Indeed, 39% of women and 32% of men do not know any women business angels and none of the women know more than five other women angels. Even the woman investor who knows over 100 angels knows fewer than five other women angels. Male investors actually know slightly more women angels – four (21%) know between five and ten and one knows between 11 and 24. This might simply reflect their slightly more extensive networking within the angel investment community.

Table 28a. Do you make use of professional advisers to assist you in the appraisal or the structuring of investments?

	Women (n=21)		Men (n=19)	
	No.	%	No.	%
yes	12	57.1	9	47.3
no	9	42.9	10	52.6

Table 28a. Types of professional advisers used to assist in the appraisal or the structuring of investments

	women		men	
	appraisal	structuring	appraisal	structuring
Bank	0	1	0	1
Accountant	4	7	6	3
Stockbroker	1	0	0	1
Solicitor	3	6	3	4
Management consultant	2	0	0	1
Other	0	0	0	0

Table 29. Approximately how many other business angels do you know personally

Number of business angels known	Women (n=21)		Men (n=19)	
	number	%	number	%
None	1	4.8	1	5.3
Less than 5	6	28.8	2	10.5
5-10	4	19.0	5	26.3
11-24	4	19.0	8	42.1
25-49	5	23.8	2	10.5
50-99	0	-	0	-
100+	1	4.8	1	5.3

Table 30. Approximately how many *women* business angels do you know personally

Number of women business angels known	Women (n=21)		Men (n=19)	
	number	%	number	%
None	8	38.1	6	31.6
Less than 5	13	61.9	8	42.1
5-10	0	-	4	21.1
11-24	0	-	1	5.3
25-49	0	-	0	-
50+	0	-	0	-

## VALUE-ADDED CONTRIBUTION

Male and female business angels are equally likely to describe themselves as 'hands-on' investors (84% cf. 81%). Quantifying this time input is difficult because some investors were unable to give a precise time and others expressed a range (from two to 20 days per month was the biggest), no doubt reflecting the differing needs of investee businesses and the organisation of the investment (solo vs. group). However, calculating a crude average by taking the mid-point of any range tentatively suggests that women investors spend more time with their 'typical' investee businesses (3.6 days per month cf. 2.89 days for men, although non-responses amongst men was much greater).

There is tentative evidence for some quite marked differences in the nature of the value-added contributed by male and female business angels (Table 31). However, a design fault in the questionnaire creates a degree of ambiguity in how to interpret the survey responses.<sup>4</sup> Nevertheless, the responses suggest that women business angels are more likely to assist on strategy development, assisting with short-term problems, making contacts with suppliers and customers and removing and recruiting members of the management team. The one area where male business angels were more likely to provide support – and it is marginal – is in helping to raise further equity finance.

Exploring the extent of any differences encountered by the investors in their dealings with male and female entrepreneurs was limited on account of the small numbers of respondents who had made investments in both male and female-owned businesses and were thus able to make such a comparison (just six men and six women). However, the clear tenor of the responses was that the gender of the entrepreneur makes little or no difference to the relationship (Table 32). None of the respondents agreed that their relationship with male entrepreneurs was more, or less

<sup>4</sup> The questionnaires asked respondents to respond to a list of possible forms of support by indicating whether they provided this on an 'occasional' or 'frequent' basis. Some responses were blank, which could be interpreted as 'never'. However, we cannot be sure that all respondents adopted this approach so it is unsafe to calculate a mean score.

Table 31. Nature of hands on support

	Women		Men	
	occasionally	frequently	occasionally	frequently
Helping to develop the original business strategy	7	12	7	6
Helping to develop a new business strategy to meet changing circumstances	3	14	4	8
Helping to develop the product/service concept	8	5	4	9
Helping to development the market strategy	7	9	3	11
Monitoring the operational performance	4	14	3	10
Monitoring the financial performance	2	16	1	14
Assisting in short-term problems	5	11	6	7
Help in obtaining further equity finance	10	7	5	10
Help in obtaining further bank finance	9	9	7	8
Serving as a sounding board to the management team	3	16	3	13
Providing contacts with customers	9	7	8	3
Providing contacts with suppliers	9	9	8	2
Removing members of the management team	8	9	11	0
Recruiting members of the management team	9	9	12	1

productive, or more or less adversarial, than with women entrepreneurs. Nor did investors feel that they could be more, or less direct with women entrepreneurs. And there was no agreement with the statement that women entrepreneurs need more hands on support than male entrepreneurs. Indeed, for the most part male business angels expressed a higher degree of disagreement with these statements, in particular that women entrepreneurs required more hands on support (mean score of 1.29 compared with 2.83 for women, where 1 is strong disagreement and 5 is strong agreement). Men also expressed much stronger disagreement with the statement that 'I cannot be as direct to women entrepreneurs as to male entrepreneurs' (1.83 cf. 2.83 for women).

## CONCLUSION

From this exploratory research it appears that overall women business angels are slightly more likely to invest in women-owned businesses although, this is not because they factor gender into their investment decision. Furthermore, there appear to be more pronounced differences in characteristics and investment attitudes and behaviour within the samples of women angels and men angels in this study than between Table 32. Working relationship with male and female entrepreneurs

Women, n = 6	mean	Number disagreeing with statement (1 or 2)	Number agreeing with statement (4 or 5)
My working relationship is more productive with female entrepreneurs than it is with male entrepreneurs	2.00	4	0
My working relationship is less productive with female entrepreneurs than with male entrepreneurs	2.83	2	0
My working relationship with female entrepreneurs is more adversarial than with male entrepreneurs	2.50	2	0
My working relationship with female entrepreneurs is less adversarial than with male entrepreneurs	2.17	3	0
I can be direct in giving my opinions to female entrepreneurs	3.00	1	0
I cannot be as direct to women entrepreneurs as to male entrepreneurs	2.83	2	0
Women entrepreneurs need more hands on support than male entrepreneurs	2.17	3	0
Men, n = 7	mean	Number disagreeing with statement (1 or 2)	Number agreeing with statement (4 or 5)
My working relationship is more productive with male entrepreneurs than it is with female entrepreneurs	2.00	4	0
My working relationship is less productive with male entrepreneurs than with female entrepreneurs	2.14	3	0
My working relationship with male entrepreneurs is more adversarial than with female entrepreneurs	2.43	3	0
My working relationship with male entrepreneurs is less adversarial than with female entrepreneurs	1.71	5	0
I can be direct in giving my opinions to male entrepreneurs	3.43	2	4
I cannot be as direct to female entrepreneurs as to male entrepreneurs	1.83	4	0
Male entrepreneurs need more hands on support than female entrepreneurs	1.29	5	0

them. Together, these findings tentatively suggest that gender is not a major issue in determining the supply of business angel finance and that the informal venture capital market is not differentiated on gender lines.

It may be, therefore, in this area as in others, that the study of sex differences per se is indeed a 'dead end' for research (Ahl 2004, 187).

That is not to say that there is no value in focusing on the gender issue in future research. First, there do appear to be some interesting implications for practice arising from this study, which warrant further exploration in more extensive research using both larger samples and more in-depth qualitative research. A minority of women did suggest that they would relax their investment criteria to consider investing in a female entrepreneur, or would spend time helping women entrepreneurs become investment ready (in an illustration of Perlman and Fehr's (1987) suggestion that in terms of network behaviour and relationships women 'express' and offer (emotional) support rather than engage in transactional behaviour). From this it can be inferred that having more women angel investors is likely to result in more investments in women entrepreneurs, in absolute if not in relative terms. Specifically, increasing the visibility and number of women business angels might attract additional deal flow from women entrepreneurs: there is some evidence that while women venture capitalists do not actively canvass women entrepreneurs they may attract more deal flow from women entrepreneurs because of their visibility (Brush et al 2004).

Second, there are differences in the sources of deal flow used by women angels (greater reliance on business associates and professionals and lower reliance on active personal search), their networking behaviour (women are less likely to invest alone, less likely to rely solely on their own judgement in due diligence and less well connected with or knowing other business angels, including women angels) and their post-investment value-added contribution (women were more likely to assist on strategy development and with short-term problems, making contacts with suppliers and customers and management team recruitment). These differences suggest that a fruitful line of further investigation will be into the nature of the relationships within which women investors (and their actual and potential investees) are embedded (Uzzi and Lancaster 2003).

Finally, there is a specific opportunity to extend this research, and draw on more general research on networks in entrepreneurship (Jack 2005), into an examination of the role of women's private equity networks in mobilising capital into women-led businesses and in providing training, encouragement, education and support for their members (Abrahams 2001; Hill et al 2004.). While the informal venture capital market may not be characterised as a gender-differentiated market, and there is no support for an essentialist argument that there are fundamental gender-based differences between women and men angel investors, there are sufficient issues raised from this initial exploration of the market, reinforced by the small number and lack of visibility of women investors, to suggest that further research into how women angel investors construct their lives and businesses – how they 'do' gender is warranted (Bruni et al 2005). In so doing, the epistemological position underlying the research will shift from objectivism to a social constructionist position, which in turn will provide a platform for the development of an understanding of an expanded research object based around the

understanding of investment and business development as a (gendered) social order (Ahl 2004).

## REFERENCES

Abramson P (2001) Best practices for financing women-owned businesses: the Women's Growth Capital Fund and WomenAngels.net, in *Proceedings of the Second OECD Conference on Women Entrepreneurs in SMEs: Realising the Benefits of Globalisation and the Knowledge-based Economy*, Paris, OECD, pp. 193-198

Ahl H (2004) *The Scientific Reproduction of Gender Inequality. A Discourse Analysis of Research Texts on Women's Entrepreneurship*. Copenhagen Business School Press

Amatucci, F. and Sohl, J. (2004) Women entrepreneurs securing business angel financing: tales from the field, *Venture Capital*

Berger P and Luckmann T (1967) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Penguin Books, London

Blackburn S (1995) Objectivism and projectivism, in J Kim and E Sosa (eds) *A Companion to Metaphysics*, Blackwell, Oxford, pp. 368-9

Brown H I (1987) *Observation and Objectivity*, Oxford University Press, New York

Bruni A, Gherardi S and Poggio B (2005) *Gender and Entrepreneurship: An Ethnographic Approach*, London, Routledge

Brush C, M N Carter, E Gatewood, P G Greene and M M Hart (2004) *Clearing the Hurdles: Women Building High Growth Businesses*, FT/Prentice Hall, Upper Saddle River, NJ

Buttner E H and Rosen B (1988) Bank loan officer's perceptions of the characteristics of men, women and successful entrepreneurs, *Journal of Business Venturing* 3, 249-258

Buttner E H and Rosen B (1989) Funding new business ventures: are decision makers biased against women entrepreneurs, *Journal of Business Venturing* 4, 249-261

Canada (2003) *Canadian Prime Minister's Task Force on Women Entrepreneurs: Report and Recommendations*, Ottawa

Carter N M, Brush C G, Greene P G, Gatewood E and Hart M M (2003) Women entrepreneurs who break through to equity financing: the influence of human, social and financial capital, *Venture Capital: An International Journal of Entrepreneurial Finance* 5, 1 - 28

Carter, N. M. and Brush, C. G. (2004) Gender, in *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*, W. B.

Gartner, K. G. Shaver, N. M. Carter and P. D. Reynolds (eds), Sage Publications, Thousand Oaks, CA

Carter, S. and Rosa, P. (1998) The financing of male and female owned businesses, *Entrepreneurship and Regional Development*, 10, pp. 225-241

Carter, S., Anderson, S. and Shaw, E. (2001) *Women's Business Ownership: A Review of the Academic, Popular and Internet Literature*, Report to the Small Business Service, Sheffield

Carter, S., Anderson, S. and Shaw, E. (2003) Women's business ownership: a review of the academic, popular and internet literature with a UK policy focus, in D Watkins (ed) *ARPENT: Annual review of Progress in Entrepreneurship*, European Foundation for Management Development, Brussels, pp. 66-157

Code L (1991) *What Can She Know: Feminist Theory and the Construction of Knowledge*, Cornell University Press, Ithaca, NY

Coleman, S. (2000) Access to capital and terms of credit: a comparison of men- and women-owned small businesses, *Journal of Small Business Management*, 38(3), pp. 37-52

Downing S (2005) The social construction of entrepreneurship: narrative and dramatic processes in the coproduction of organizations and identities, *Entrepreneurship Theory and Practice* 29, 185-204

Duchenaut, B. (1997) *Women Entrepreneurs in SMEs. Report prepared for the OECD Conference on Women Entrepreneurs in Small and Medium Sized Enterprises: A Major Force for Innovation and Job Creation*, Paris, France: OECD

Fabowale L, Orser B and Riding A (1995) Gender, structural factors, and credit terms between Canadian small businesses and financial institutions, *Entrepreneurship Theory and Practice*, 19(4), 41-65

Fels A (2004a) *Necessary Dreams: Ambition in Women's Lives*, Pantheon Books

Fels A (2004b) Do women lack ambition? *Harvard Business Review*, April 2004

Freear J and Wetzel W E Jr (1990) Who bankrolls high-tech entrepreneurs? *Journal of Business Venturing* 5, 77-89

Gaston R J (1989) *Finding Private Venture Capital for Your Firm: A Complete Guide*, New York, Wiley

Gatewood E J, Carter N M, Brush C G, Greene P G and Hart M M (2003) *Women Entrepreneurs, Their Ventures, and the Venture Capital Industry: An Annotated Bibliography*, Stockholm, ESBRI (Entrepreneurship and Small Business research Institute)

Gilligan C (1982) *In a Different Voice: Psychological Theory and Women's Development*, Harvard Business School Press

Gneezy U, Niederle M and Rustichini A (2003) Performance in competitive environments: gender differences, *Quarterly Journal of Economics* 118, 1049-1074

Goffee R and Scase R (1983) Business ownership and women's subordination: a preliminary study of female proprietors, *The Sociological Review* 31, 625-648

Greene P G, Brush C G, Hart M M and Saporito P (1999) Exploration of the venture capital industry: is gender an issue/, in P D Reynolds, W D Bygrave, S Manigart, C M Mason, G D Meyer, H J Sapienza and K G Shaver (eds) *Frontiers of Entrepreneurship Research*, Babson College, Babson Park, MA, pp. 168-181

Greene, P. G., Hart, M. M., Gatewood, E. J., Brush, C. G. and Carter, N. M. (2003) *Women Entrepreneurs: Moving Front and Center: An Overview of Research and Theory*, Coleman White Paper, forthcoming

Haar N E, J Starr and I C MacMillan (1988) Informal risk capital investors: investment patterns on the East Coast of the USA, *Journal of Business Venturing* 3, 11-29

Haraway D (1991) *Simians, Cyborgs and Women*, Free Association Books, London

Harrison R T and C M Mason (2000) Venture capital market complementarities: the links between business angels and venture capital funds in the UK, *Venture Capital: An International Journal of Entrepreneurial Finance* 2, 223-242

Hill L, Nealis B and Sohl J (2004.) Women with wings: do women angel organisations have what it takes to fly? *Working Paper*, Whittemore School of Business and Economics, University of New Hampshire

Infometrics Ltd (2004) *New Zealand's Angel Capital Market: The Supply Side*, Wellington, Ministry of Economic Development

InvestorPulse (2003) *UK Angel Attitude Survey*, C2Ventures, London, [www.c2ventures.com](http://www.c2ventures.com)

Jack S (2005) The role, use and activation of strong and weak network ties: a qualitative analysis, *Journal of Management Studies* 42

Koreen M (2000) *Background Report. Workshop No. 3. Financing for Women-Owned Businesses*. Women Entrepreneurs in SMEs: Realising the Benefits of Globalisation and the Knowledge-based Economy, Paris 29-30 November 2000. Paris, OECD

Kourilsky M L and Walstad W B (1998) Entrepreneurship and female youth: knowledge, attitudes, gender differences and educational practices, *Journal of Business Venturing* 13, 77-88

Leitch C M, Hill F and Harrison R T (2005) The supply of finance to women-led ventures: the Northern Ireland experience, in C Brush, N Carter, E Gatewood, P Greene and M Hart (eds) *Growth Oriented Women Entrepreneurs and their Businesses: A Global Research Perspective*, Edward Elgar, forthcoming

Lumme A, C M Mason and M Suomi (1998) *Informal Venture Capital: Investors, Investments and Policy Issues in Finland*, Dordrecht, Kluwer Academic Publishers

Lyotard J-F (1979/1991) *The Postmodern Condition: A Report on Knowledge*, Manchester University Press, Manchester

McKechnie, S. A., Ennew, C. T. and Read, L. H. (1998) The nature of the banking relationship: a comparison of the experiences of male and female small business owners, *International Small Business Journal*, 16(3), pp. 39-55

Mason C M and R T Harrison (1994) The informal venture capital market in the UK. In A Hughes and D Storey (eds) *Financing small firms*, Routledge, London, pp. 64-111

Matthews C H and Moser S B (1995) Family background and gender: implications for interest in small firm ownership, *Entrepreneurship and Regional Development* 7, 365-377

Matthews C H and Moser S B (1996) A longitudinal investigation of the impact of family background and gender on interest in small business ownership, *Journal of Small Business Management* 34

Mirchandani, K. (1999) Feminist insight on gendered work: new directions in research on women and entrepreneurship, *Gender, Work and Organization*, 6, pp. 224-235

Moore G (1990) Structural determinants of men's and women's personal networks, *American Sociological Review* 55, 726-735

Orser B and Connell J (2005) *Sustaining the Momentum: An Economic Forum on Women Entrepreneurs. Summary Report*, Sprott School of Business, Carleton University

Paul S, G Whittam and J B Johnston (2003) The operation of the informal venture capital market in Scotland, *Venture Capital: An International Journal of Entrepreneurial Finance* 5, 313-335

Perlman D and Fehr B (1987) The development of intimate relationships, in D Perlman and S Duck (eds) *Intimate Relationships*, Sage, Newbury Park, CA, pp. 13-42

- Polachek S W (1981) Occupational self-selection: a human capital approach to sex differences in occupational structure, *Review of Economics and Statistics* 63, 60-69
- Putnam H (1981) *Reason, Truth and History*, Cambridge University Press, Cambridge
- Read, L. (1998) *The Financing of Small Business: A comparative study of male and female business owners*, London: Routledge
- Reitan B and Sørheim R (2000) The informal venture capital market in Norway – investor characteristics, behaviour and investment preferences, *Venture Capital: An International Journal of Entrepreneurial Finance* 2, 129-141
- Riding, A. L. and Swift, C. S. (1990) Women business owners and terms of credit: some empirical findings of the Canadian experience, *Journal of Business Venturing*, 5, pp. 327-340
- Riding A L, P Dal Cin, L Duxbury, G Haines and R Safrata (1993) *Informal Investors in Canada: The Identification of Salient Characteristics*, Ottawa, Carleton University
- Rorty R (1979) *Philosophy and the Mirror of Nature*, Princeton University Press, Princeton, NJ
- Scherer R F, Brodzinsky J D and Wiebe F A (1990) Entrepreneur career selection and gender: a socialization approach, *Journal of Small Business Management* 28(2), 37-43
- Shane S (2004) *A General Theory of Entrepreneurship*, Edward Elgar
- Shaw, E (2001) Viewpoint. Give women a chance. *Financial Times* (London, UK), 22 November, p. 16
- Stansell C (2004) Blindsided ambition: diagnosing a crisis in young women's lives. <http://slate.msn.com/id/2101430/> [posted 1 June 2004; accessed March 30 2005]
- Stedler H R and Peters H H (2003) Business angels in Germany: an empirical study, *Venture Capital: An International Journal of Entrepreneurial Finance* 5, 269-276
- Uzzi B and Lancaster R (2003) Relational embeddedness and learning: the case of bank loan managers and their clients, *Management Science* 49, 383-399
- Verhuel I and Thurik R (2001) Start-up capital: 'does gender matter?' *Small Business Economics* 16, 329-346

Wellman B and Frank K (2001) Network capital in a multilevel world: getting support from personal communities, in N Lin, K Cook and R S Burt (eds) *Social Capital: Theory and Research*, New York, Aldine de Gruyter, pp. 233-273