Business Angels in Wales:

Putting some boundaries on our ignorance

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Acknowledgements

The authors are grateful to the business angels who replied to the survey as well as to those that listened to, and commented upon, the findings during two presentations, one in North Wales and one in South Wales.

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Abstract (264 words)

This paper presents the results of a survey of business angels who are members of Xénos, a publicly funded regional/national not-for-profit network. The angels operate in Wales, one of the relatively economically deprived regions of the UK, where their activities encourage enterprise, innovation, business growth and employment. This is the first ever survey of the angels' attitudes, behaviours and characteristics. The survey was supplemented with qualitative data obtained during presentations of the findings with two groups of angels.

The survey finds there are some unique features about the angels registered with Xénos. Average deal size appears to be significantly higher than the UK average. Another unique feature is linked to the topography of Wales and there are parts of the principality where angel investment will be more difficult to obtain due to the location and the travelling time taken to visit the investee company.

There are also similarities of the Xénos membership to their contemporaries in the UK and the rest of the world. They are male, aged between 41-60, and have made their fortunes through managing successfully their own businesses. They invest for capital gain and for intrinsic rewards. There is limited qualitative evidence to suggest that some may be more altruistic than may be expected. The angels appear to be relatively successful with a high percentage breaking even or making profits than is expected of risky investments.

As with other studies of BANs, the business angels' perception was that Xénos found it difficult to provide the quality of deals desired and that recommendations from business associates and friends were more highly regarded.

Business Angels in Wales:

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Introduction

Recent business angel research has demonstrated that while there are some similarities between the attitudes, behaviours and characteristics of informal investors throughout the world, significant international differences also exist. Furthermore, when studies have examined business angels in different regions within a national economy, variations to national norms have been uncovered. So while the existing literature provides valuable insights into the workings of this largely invisible marketplace, there is no substitute for primary data from angels from the specific geographic area under investigation.

This paper presents the results of the first ever survey of business angels in Wales. It attempts to build on other surveys to identify any unique features of this marketplace with the specific aim to develop the activities of Xénos - The Wales Business Angel Network – operated by Finance Wales, part of the Welsh Development Agency (WDA).

The paper commences with some background information about Wales and Xénos. This is followed by a review of the existing literature concentrating on comparative national and regional surveys of business angels and the role of business angel networks (BANs). The choice of method used in this study is then outlined before the results are presented and discussed. Finally, conclusions are drawn together with an identification of the scope for further research.

Background

The Welsh economy has a workforce of just over 1 million people which has moved from one dominated by heavy industries such as coal and steel to a much broader base of modern manufacturing and services. More recently, parts of Wales have faced a number of economic pressures. The steel industry has declined, manufacturing faces severe global competitive pressures and the rural economy has faced an uncertain environment (BSE, foot and mouth, etc.) that have impacted heavily on profitability whether from agriculture or tourism. As a result the Welsh economy performs relatively poorly compared to many other UK regions on most economic indicators. Average incomes are relatively low and unemployment is relatively high. For example, Welsh households source more of their income from pensions and social benefits and less from employment income than the UK average (National Assembly for Wales, 2002). It is unfortunate that many of the economic characteristics of the Welsh economy reported by Snee (2000) are still as relevant five years later on:

> *'The economy of Wales is characterized by high unemployment, low productivity and a predominance of slow-growth activities…Whilst performance in certain manufacturing sectors has been impressive, there are many sectors that are relatively undeveloped in Wales. These tend to be the faster growing sectors such as tradable services, including financial and business services'.*

(Snee 2000, p 344)

Using the number of businesses in Wales as a proxy for enterprising activity, Wales performs relatively badly compared to other UK regions. Data for VAT registered firms shows that both Welsh registration and de-registration rates are among the lowest in the UK and the total stock of Welsh businesses has been declining for the last decade. Business density in Wales (VAT registered business per 100,000 population) is 14% lower than in England and 25% lower than in Northern Ireland (SBS 2003).

An international study of entrepreneurship (GEM 2001) found a lack of entrepreneurial behaviour and attitudes in Wales. The study found:

- Wales had a low percentage of the population involved in emerging or new firms.
- Wales has one of the lowest rates of individuals involved in starting a business.
- The proportion of graduates and post-graduates starting a business is higher than for non-graduates (one in five self-employed people are graduates) so Wales' lower educational attainment is, therefore, restrictive.
- Wales has few growth businesses.
- Attitudes to entrepreneurship are not favourable and few people believe that there are good opportunities to start a business in Wales.

The National Assembly for Wales was established in 1999 and has current economic objectives that include increasing employment, improving enterprise and innovation and the development of a better co-ordinated and well-targeted business support network (National Assembly for Wales, 2002). The calls for the formation of a business angel network for the principality had began in the mid 1990s, firstly with a report from the Confederation of British Industry (1995) and subsequent reports from the Welsh Development Agency (WDA 1996) which called for a network to fund technology businesses in Wales.

The rationale for Xénos and its eventual operational direction was outlined in a feasibility study conducted by Cardiff Business School (1996). The study reported that at that time there were between 50 and 80 currently active angels in Wales and most of these had investment amounts available at the lower end of the scale, i.e. up to £k30. Their research indicated that a realistic target number of angels for an all-Wales BAN was between 150 and 200. Furthermore, they estimated that as many as a 100 expatriate angels could be stimulated to register with a Welsh network. They suggested that a Welsh network could expect to achieve between 15 and 20 deals every year with total investment of £m1, if it was able to circulate between 100 and 120 investment opportunities annually.

As at January 2005, Xénos has 138 members, with just over half living in South Wales, about a third in Mid and North Wales and about one fifth living outside Wales, mostly in the South of England (the ability to attract expatriate members is limited as angels prefer to be near to the investment companies, see later). Therefore in terms of size of membership the current network is at the smaller end of initial expectations. However, 280 angels have registered on the Xénos database since 1997.

Members complete a registration form and pay a nominal joining fee and they are asked to renew their membership one year after they initially registered. However, at this point they decide to renew their membership or not as the case may be; so the database is one of active or interested business angels. The registration form gathers contact details, a number of important background variables, pertinent disclaimers and declarations, sector selection guide, as well as information about leisure and sporting interests. However, it is not feasible or practical for Xénos to verify the information provided by their investors, for example, what funds they state that have available to invest.

The number of successfully completed deals and the amounts invested since the network started is provided in Table 1. The activity is quite erratic, with the number of deals and the deal size varying considerably from year to year, most notably the technology downturn after the “dot.com” era of 2001/2, which is common to other BANs. Despite a smaller than anticipated active membership the number of deals completed are in line with the expectations of the feasibility report. This information is potentially incomplete as there is no formal reporting mechanism to monitor the investment activity of members.

Table 1: Business angels’ deals completed through Xénos

Year	Total £k	No. of deals	No. of angels	Average deal size £k	Average investment per angel £k
1997	40	1	1	40	40
1998	390	3	3	130	130
1999	881	14	14	63	62
2000	1430	15	17	95	84
2001	863	10	13	86	66
2002	452	10	10	45	45
2003	374	7	8	53	47
2004	664	9	14	73	47
2005 -July	670	8	12	95	55
Average	678	9	11	75	63

From Table 1 it is also apparent that average deal size is higher than anticipated in the feasibility study, but the number of deals done is less than predicted. This is partly explained by the smaller size of active network than planned, although the total investment is comparable with the £m1 forecast. In 1999-2000 the British Venture Capital Association described Wales as a business angel “hot spot” – a region which had significantly higher proportions of business angel activity (measured in terms of the number of investments) than their regional share of UK VAT registered businesses.

It could be argued that the network has not reached its true potential, but to date, there has not been any formal research completed that gathers and analyses the view of the members of Xénos and this study is an attempt to fill this gap. Before the research study is outlined, a brief review of the relevant literature is explored.

Literature Review

Since Wetzel’s (1981) inaugural study aimed at putting “some boundaries on our ignorance”, a number of national surveys have been completed. For example, in the US (Harr, Starr and Macmillan 1988), the UK (Mason, Harrison and Chaloner 1991; Stevenson and Coveney 1994), Canada, (Riding, DalCin, Duxbury, Haines and Safrata 1993; Duxbury, Haines and Riding 1996), Sweden (Landstrom1993, 1995), Holland (K+V Organisatie adviesbureau bv and Entrepreneurial Holding bv 1996), Finland (Lumme, Mason and Suomi 1998), Japan (Tashiro 1998) Australia (Hindle and Wenban 1999), Singapore (Hindle and Lee 2002), Germany (Brettel 2003; Stedler and Peters 2003) and Scotland (Paul, Whittam and Johnston 2003). Most of this research has attempted to produce some initial findings concerning the attitudes, behaviours and characteristics ("ABCs") of these types of investors in the country or regions concerned.

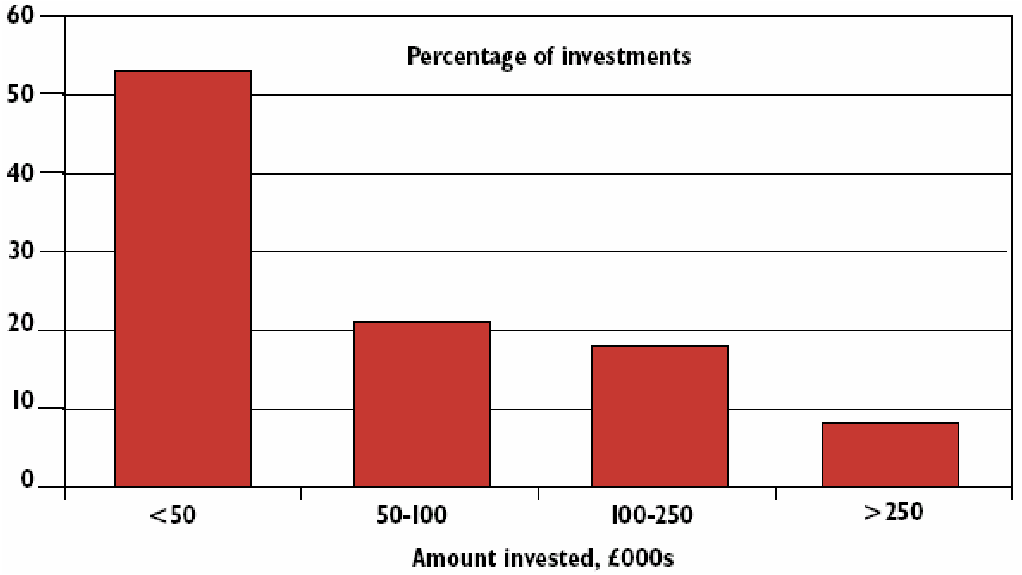
Mason and Harrison (1994) describe the demographic characteristics of business angels in the UK. They are almost all male (99 per cent) and the majority of them are middle-aged (66 per cent are in the age range of 45-64 years old). They have worked either as business owners, business managers and chief executives or as accountants, company secretaries and consultants. Most of them have experience in entrepreneurship. It is estimated that two thirds of them in the UK have founded one or more ventures and 70% have founded more than one business venture. Almost two-thirds of them continue to be connected with at least one of the businesses that they have founded either as shareholders or as managing directors. It is often common for them to have sold some of their ventures in the past. Business angels can be said to belong to the well-off category of the population but certainly not to the "super rich" category. It is estimated that their average income is just under £k46 and their average net worth is over £k310 (1994 figures uplifted using R.P.I. January 2005 are £k59 and £k401 respectively). Finally, business angels keep a rather low profile, which makes their identification problematic.

Business angels can be found in every town and city. The majority of them have a strong preference towards investing in businesses located within 100 miles of their residences. A reason for this could be that business angels are "hands-on" investors who want to make regular visits to their investments. So it is natural for them to seek to minimise travelling time by investing locally. Stevenson and

Coveney (1994) cast doubt over this claim, but further research from Mason and Harrison (1997b) seems to support this pattern of local investment. Perhaps, the great knowledge that business angels can have for potential investment opportunities in their close vicinity motivates them to invest more locally than in more distant opportunities. Some business angels who have a specific interest in investing in certain types of industries or technologies may invest over longer distances.

Business angels usually make small investments well below the minimum size considered by most venture capital funds, see Figure 1. In the UK there is evidence that the majority of them invest less than £50,000 in a single deal. A significant percentage of these investments are syndicated, providing larger amounts of money for investing. So, there is evidence that some investors may prefer to invest more than £100,000 a deal (Mason and Harrison, 1997a). Therefore, business angels may choose to invest on their own or in co-operation with others and usually alongside other business angels.

Figure 1: UK business angel investments by size 2000-2001



Source: Report on Business Angel Investment Activity 2000-2001, Mason, C 2002, quoted in H.M. Treasury (2003) p.11.

Business angels can invest in all industrial sectors, but usually they have a strong preference for investments in start-up firms and in firms that are at the early stages of their development. Also there is evidence that business angels in the UK prefer investing in the service sector (Mason and Harrison, 1993b). Usually they are relatively infrequent investors, but it can be said that once they decide to invest they have a very patient attitude. They can hold their interest for 5 years or more, which is an exit horizon beyond the venture capital industry (Mason and Harrison, 1994 and 1997a). When they identify exit routes they prefer trade sales, market listing and firm's share buy-back programs (Mason and Harrison, 1994). Most of the time they provide small firms with equity capital, but they can also provide loans, in some cases unsecured-guarantees and debt-equity arrangements. When they provide equity finance they select simple finance schemes like ordinary shares. More complex financial instruments like preference shares are preferred in cases where large amounts of money are being invested. Finally, when they invest they obtain information about current market opportunities from business associates and friends. Intermediaries such as brokers, accountants, lawyers and bankers rarely interfere in the process of gathering information.

Most UK informal investors are minority shareholders in the ventures in which they invest and so they do not wish to obtain control of their investments. A controlling interest can result when large amounts of money are involved and the investment is undertaken by a group of business angels enabling them to obtain a majority shareholding. In most of these latter cases entrepreneurs can take back control if their firm finally succeeds in achieving some predetermined specific performance targets.

Most angels adopt a “hands-on” role by providing specific advice to the small firms. In that way they can contribute as investors who add value in the small enterprise. They usually exploit their specific skills, knowledge and experience to help the small firm overcome any significant difficulties in the daily conduct of operations. This active involvement in favour of the small firms can have significant tactical and strategic implications for them. The adoption of this active role seems to have the potential to cause conflicts between business angels and entrepreneurs. However, there is strong evidence that in most cases it has worked in favour of the small firms and that a common consensus seems to have prevailed in the decision making process. On the contrary, some business angels may prefer to remain passive rather than being actively involved in the business they invest in (Mason and Harrison, 1993a, 1994 and 1997a).

An interesting survey about the personality profile of Canadian business angels was conducted by Duxbury, Haines and Riding (1996) and tried to give information about their profile. Their results could give some general indication about the psychological make-up that business angels may have. Angels were most likely to have an internal locus of control, very high needs for achievement and dominance and moderately high needs for affiliation and autonomy. They were intrinsically motivated, highly involved with their investments, very satisfied with their jobs, and moderately satisfied with the performance of their investments. They also presented high levels of perceived stress that they cope with by working harder. The investments usually undertaken by angels are risky activities. These can be attractive to angels because they can offer high expected returns and because they have the ability to satisfy the need of the angels for achievement, affiliation and involvement. Angels want to cope with the risk that they undertake in their investments by looking to satisfy their needs for autonomy and dominance.

While research of this kind is able to describe the ABC of the typical private investor, Kelley and Hay (1996) and Sorheim and Landstrom (2001) stress that the business angel market is heterogeneous and stereotyping the average investor may be inappropriate. Stevenson and Coveney (1996) re-enforced the idea that business angels are not a homogenous group. So while a great deal is known about angels generally, this information may be more or less applicable to individual networks under investigation.

BANs have emerged to improve the flow of information between investors and entrepreneurs. The fist such network, the Venture Capital Network (VCN), was established in the US in 1978 (Sohl 1999) with the aim of providing a communication channel between the two parties (Mason and Harrison 1993c) to intervene in the “giant game of hide-and-seek with everyone blindfold” (Gatson 1989). The number of BANs has increased, especially in the US, but also most countries in Europe now have more than one BAN. In 2000, EBAN, the European business angel network was established with funding from the EU comprising of a number of national BANs (Bushrod 2001).

Mason and Harrison (1993c) place BANs into four categories: local/regional public sector/not-for-profit networks, local/regional private sector-operated commercially-orientated networks, national private sector-operated commercially-orientated networks and national public sector/not-for-profit networks. Xénos is arguably in either the first or last of these categories depending upon whether Wales is considered to be a region of the UK, or a nation in its own right. The devolved powers of the National Assembly for Wales includes economic regeneration and a national nomenclature may seem more appropriate. Mason and Harrison (1995) note that most business angels are unable to find sufficient investment opportunities and so have substantial uncommitted funds available. They argue that the most cost-effective means of closing the equity gap is for the public sector to underwriting of BANs

BANs utilise different matching strategies. Some of these outlined by Mason and Harrison (1993c) included investor bulletins (which provide a brief description of investment opportunities circulated to members on a regular basis), investor meetings (where entrepreneurs present their business case to an invited audience of potential investors) and computer matching (a two stage process based on an initial comparison of variables gathered from investors and entrepreneurs followed by communicating potential investment opportunities to angels without the identity of the angel revealed to the company). Xénos circulates bulletins each month, and investor meetings (known as *fora*) take place four times a year in South Wales and once a year in Mid and North Wales (although others take place if demand dictates). In between bulletins, computer matching takes place with Xénos staff monitoring investment opportunities as they appear and contacting members based on their stated areas of interest contained on their computer database.

While BANs are a genuine attempt to enable market dynamics to operate in a micro economy characterised by information poverty, a number of studies have reported that they are not highly rated by business angels as a source of investment opportunities (Wetzel 1981; Stevenson and Coveney 1994). Business angels rated BANs as a relatively insignificant source for deal referral with as little as 13% of deals sourced through BANs (Stevenson and Coveney 1994). Similar findings were obtained from studies in the US where 10-15% of deals offered through investor bulletins and 40% of deals offered through investor meetings were successful in finding investors (Sohl 1999).

Wetzel (1981) and Mason Harrison and Chaloner (1991) have argued that regional networks are more appropriate than national networks. However, work by

Stevenson and Coveney (1994) suggests that geographic proximity is not a major concern and argue that smaller regional networks exacerbate the problems of fragmentation found in the angel finance marketplace. Sorheim and Landstrom (2001) see a role for both regional and national groups, pointing to the heterogeneity of angels and the diversity of their needs.

Harrison, Dibben and Mason (1997), from a qualitative study of angels, categorises the criticisms of BANs into:

1. Poor quality opportunities provided and a lack of screening of entrepreneurs
2. Lack of business or investment expertise of BAN staff
3. Poor quality (fragmented) information on investment opportunities
4. BANs only forwarded opportunities and did not add value to the information available
5. Low levels of sophistication in matching process with ineffective targeting of investors and opportunities.

To date, apart from the initial feasibility study, there has not been any formal research conducted into business angel activity in Wales, and into Xénos, the only BAN operating exclusively in the principality. Given the shortcomings attributed to many BANs, an investigation into the membership of Xénos was long overdue.

Method

Business angels are known to have a preference for anonymity (Wetzel 1981), which hinders the empirical research process. As a consequence research methods that preserve the anonymity of the respondent have been preferred, such as postal questionnaires. While this method has a number of advantages, it also presents researchers with a number of dilemmas. The method adopted in this investigation was a postal questionnaire survey, with the results complemented with qualitative data obtained during presentations at two investor lunches.

The questionnaire instrument was prepared in the autumn of 2004 and was guided by the available literature. Van Osnabrugge (1998) Paul, Whitham and Johnson (2003) and a questionnaire instrument subsequently reported in Harrison and Mason (2005) were influential sources in the question selection, although a number of specific questions were developed by the researchers to meet precise needs of this study. The questionnaire was piloted with Xénos staff, including regional managers and two investors. Questions were amended and ambiguities removed where identified.

As part of the membership agreement with Xénos, the database is constantly updated and former investors are not contacted. The membership database of 138 in January 2005 when the questionnaire was distributed was therefore restricted to business angels actively seeking investment opportunities. Some members de-register when they are not seeking investments and re-register when they do, so the list is managed with a high regard to business ethics.

The questionnaires were sent out twice to the membership, once in January 2005 and then again in February 2005 with a covering letter asking members to ignore the reminder if they had already completed the survey. A total of 36 replied to the initial enquiry and 16 to the second request. 4 responded to both. These were identified either by the inclusion of the membership number (an optional field) or through a comparison of background variables which indicated that the investor had already completed the survey. A total of 48 usable replies were received giving a response rate of 35%, which is quite high for postal surveys. More importantly, a comparison of the geographic dispersion of the database population and the sample received indicated that a regional bias did not exist, see Table 2.

Table 2: Regional comparison of the respondents with the sampling frame

Region	Population		Sample	
North/Mid	43	31%	13	27%
South	70	51%	26	54%
Other	25	18%	9	19%
Total	138	100%	48	100%

Once preliminary results were available, they were presented by the independent researcher to two groups of angels during investors' lunches held in May 2005, (one in North Wales and one in South Wales). During these presentations, permission was sought, and obtained, to record anonymously any comments or observations that the angels may wish to make. A total of twenty angels were present, although not all contributed to the debate.

Results

The first series of questions related to the attitudes of the investors to a range of issues. The first of these asked how important different factors were in the initial decision to become a business angel. Respondents were asked to indicate their answers using a Likert scale of 1 (not important), through to 5 (very important). The results in Table 3 are presented as means. While this variable is non-parametric and the average has little statistical meaning, it provides a relative measure that can be used to rank the responses and assist in interpretation of the results. The restricted sample size (n=48) restricts the scope for cross tabulations and other analysis involving disaggregating into data subsets for comparative analysis.

Table 3 Relative importance in decision to be a business angel
(Scale 1 to 5)

To make a capital gain	4.41
For enjoyment and satisfaction	3.88
To assist small businesses	3.15
To take advantage of EIS and other tax breaks	2.96
For income generation purposes	2.76
To keep active	2.63
To create a part time job for yourself	2.54
To create a full time job for yourself	1.67

While the top answer, to make a capital gain, is consistent with the main literature base, (see Stevenson and Coveney 1994, van Osnabrugge 2000, etc.), the next most popular answer is intrinsic, which is consistent with Aernoudt (1999) whose work suggests that angels are motivated by the challenge of succeeding with a new project. The third most popular answer of fulfilling some wider role in society is consistent with Lumme, Mason and Suomi's (1996) findings. What was surprising was the lowly position of the tax incentive and income generation responses.

During the presentation of the results to a group of investors, one offered this unsolicited comment outlining his willingness to help new and growing businesses:

Investor: 'I know a couple that are not going to get to the investment stage unless someone gives them a hand, sometimes I'll go in and just help them. I've no intention of investing and they know that. Some of them are just boffins. They only need basic information and you can give that. It's never a waste. I can't speak for all business angels, but I don't mind helping people even if I'm not going to invest…I've done it several times. It's not always about investing. I've done a lot of work with companies that I've not invested in, or had any intention of investing in, not even from the first meeting, but I've hung around to help. I don't think I'm unique, but it may not be common. I wouldn't have been able to achieve all I have achieved without help. Some of that help was unpaid help. I went to people for money, but they didn't give me any. Instead what they gave me was a few tips and in the end those tips were worth money. I didn't get any money into my pocket, but I got it eventually and that's what's important. It's not all about putting cash on the table. If you can help someone achieve their goal then you'd have to pretty hard nosed not to help someone when you've got the information and it doesn't take long to pass it over. You help them get to the point where they get to be more presentable [able to present at an investment fora] and when the Xénos manager looks at them the second time, it's in better shape'.

Researcher: 'Would you like us to ask? "would you like to be a business mentor?"'

Investor: 'I suppose it does fit that bill, but I don't want to put myself down as one'.

This investor was clear quite willing to be philanthropic with his time, if not his money, but the advice offered represents a significant part of the value added presented by business angels.

The next question asked what stage of company the angels preferred to invest in and the results are presented as Table 4.

Table 4 Stage of company preferred
(Scale 1 to 5)

Expansion	3.88
Start up	3.35
Management buy in	3.33
Management buy out	3.27
Rescue	2.90
Seed (pre-start up)	2.70

This result indicates that these business angels with their preference for expansion and start up are clearly differentiating themselves from say the Venture Capital industry that prefer MBOs or MBIs. The low rank of seed (pre-start-up) stage companies was unexpected, but possibly consistent with their motivation to obtain a capital gain. These findings are partly similar to the results of Mason and Harrison (1994), but as the questions asked differed slightly a direct comparison is not possible.

When asked to rank a number of factors in terms of their importance when assessing an investment opportunity, the highest ranked was management, which was more important than the product, the financial forecasts, the industry, etc. Angels were also asked would they invest in social enterprises (defined as those enterprises undertaking non commercial activity) and a resounding 82% said ‘No’.

The two main factors influencing business angel investment decisions were related to time available; see Table 5.

Table 5 Factors influencing business angel investment decisions
(Scale 1 to 5)

Time available to spend with investee companies	3.96
Time available to appraise investment opportunities	3.74
Other	3.38
General state of the economy	2.44
Interest rates	2.33
Property market	2.11
Stock market movements	1.98
Commodity market movements	1.52

During the discussion sessions, the high ranking of ‘Other’ was the subject of much debate. Some of the angels had provided ‘location’ as an expansion of this factor and the argument was put forward that there is a balance to be struck between risk, location and potential return. For example, one UK investor stated that he had one investment in the US, but he did not perceive it as very risky mainly because of the quality of the management team. He was able to satisfy his monitoring requirements with information provided by the local management supplemented by bi-annual visits to the company.

60% of Welsh business angels stated they intended to want to invest more in 2005, despite 2004 being a quite a good year, 21% said they would invest about the same and just 6% said they would invest less (13% responded with ‘Don’t know’). So the upward trend reported in Table 1 looks set to continue.

The next section of the questionnaire explored the investing behaviour of the business angels, starting with the source of investment opportunities to consider, see Table 6. This result was very pleasing as far as the BAN was concerned as they were regarded as the main source, closely followed by business associates.

Table 6 Source of opportunities considered
1(none) to 5 (most)

Xénos – the Wales Business Angel Network	3.96
Business Associates	3.48
Other	2.67
Friends	2.44
Other Business Angel Network	2.09
Accountant	2.09
Media – newspapers, magazines	1.79
Solicitor	1.60
Stockbrokers	1.37

Once again the ‘Other’ category was highly featured and one angel offered one potential reason for this:

‘I sit on the board of four companies and they’re all university spin outs. They come from my contacts with technology transfer companies and they come up with contacts for business angel money. There are lots of electronic innovations coming out of Bangor, Aberystwyth, Swansea and Bristol. These are important sources of businesses to invest in. The ones I take are generally academic departments who have achieved some technological milestone, but it’s generally early stage stuff. Occasionally you find some projects in Universities that [they] have invested in, that have not achieved and there are a lot of those around. You can turn those around and make them a source of investment.…They come up from academic departments, with a couple of academics behind it who have never done anything like this before. It's never going to get anywhere unless someone with a commercial background does the next stage, because if you allow the academics to take it forward, they'll get used to trying to being managers and when you have to displace them it's all blood and tears.'

The good news for Xénos was tempered by the response to the next question that asked from which source of opportunities had the angels most often invested, see Table 7. Here Xénos finished a disappointing fourth place, well behind business associates, friends and 'Other'. During one presentation this "other" category was suggested as venture capitalists or business associates that could provide a qualification to the potential deal. Quite clearly this supports the work of Wetzel (1981), Mason and Harrison (1994), Freear, Sohl and Wetzel (1995) and Harrison, Dibben and Mason (1997) and during discussions it was suggested by one angel that the BAN was unable to produce the quality of deals required. Fiet (1991) reported that angels were more concerned with reducing agency risk (i.e. uncertainty about the entrepreneur/management team) than market risk (unforeseen competitive conditions). There are two main ways of reducing agency risk; the first involves meeting the entrepreneur and researching their background/personal history using publicly available sources such as companies house information; the second method is to restrict investments to those individuals with whom they trust either because they have an existing relationship with them, or who have been referred to them by a friend or trusted associate

(Harrison, Dibben and Mason 1997). This latter strategy reduces the risk of investing in entrepreneurs that may be dishonest, self-interest seeking and non-performing (Fiet 1995).

Table 7 Source of opportunities <u>most often invested</u>
1(none) to 5 (most)

Business Associates	3.21
Friends	2.31
Other	2.12
Xénos – the Wales Business Angel Network	2.09
Accountant	1.71
Other Business Angel Network	1.61
Media – newspapers, magazines	1.43
Solicitor	1.29
Stockbrokers	1.29

This poses a difficulty for the BAN. They seek to provide quality investment opportunities, but they cannot offer a recommendation in the way that a business associate or friend could. Xénos claims exemption under the Financial Services and Markets Act (2000) as a not-for-profit introduction service. Even if they were registered they would face a dilemma as to whom they provided investment advice. There is a clear conflict of interests between the companies and the business angels, which places the BAN in an invidious position.

The angels reported a positive attitude to syndicating with other investors, with a mean score of 3.81 on a scale of 1(never interested) to 5 (very interested). This was borne out by other statistics, with over 50% of deals in 2004 involving syndicates. The main reason for considering syndicating were the amount of investment required by the company is too large for a single investor, followed by a preference to invest smaller amounts and spread the risk by co-investing. Table 8 provides details of the preferred investment partner when syndicating and here the BAN was highly regarded after business associates.

Table 8 Preferred investing partners
1(least often) to 5 (most often)

With business associates	3.62
With members of the same business angel network	3.35
With venture capitalists	2.19
With Finance Wales	2.19
With Banks	2.07
Always with the same investor(s)	1.84
Other	1.67
With family members	1.56

63% intended taking an active role in the companies in which they invested, with 33% stating that it would depend on the investment; only 4% said they did not intend taking an active role. This closeness to their investment clearly is a risk minimisation strategy, but is also linked to the intrinsic rewards (enjoyment and satisfaction) demonstrated in Table 3.

When asked how many days per month on average they intended spending or spend with each company, the mean was 4.85 days, with a median of three days and a mode of two days. 81% of responses stated it was less than five days. Again, this confirms the time constraint on investment and during discussions it was apparent that angels tended to underestimate the amount of time they needed to spend with their investments. The most an average business angel could reasonable invest in would be four to five companies at any given time. The main nature of support provided was guidance at a strategic level, closely followed by performance monitoring and then balancing the management team. This paucity of time makes the philanthropic advice offered by the angel earlier much more meaningful. The opportunity cost to the business angel of spending time advising businesses is potentially greater than the investment required.

Of the angels responding to the survey, 56% (n = 27) had exited business angel type investments, but what was surprising was the result of the exit, see Table 9.

Table 9 Result of exiting investment

Full loss	7	26%
Partial loss	5	18%
Break Even	4	15%
Profit	11	41%
Total	27	100%

While rates of return are not available, the fact that well over half of the investments broke even or made a profit is promising. Little is known about the returns from investing in the informal venture capital market (Mason, Harrison and Allen, 1995, Freear, Sohl and Wetzel 1997), but it is known that serial angels have better performing investments (Van Osnabrugge 1998). There could be a measurement bias as the questionnaires were self-administered and it is not possible to check the accuracy of the data. Angels may wish to be seen to be more profitable than they actually are, but as the questionnaire was anonymous there is no reason to bias the answer and 44% admitted making either full or partial losses. One angel commented on this result, ‘At least we live to fight another day’, implying that intrinsic rewards were as important as financial returns.

By far the most important factor influencing the angels’ ability to invest was an insufficient *quality* deal flow, followed by deal flow generally and then factors associated with time availability, see Table 10.

Table 10. Factors influencing ability to invest
1(least effect) to 5 (most effect)

Insufficient quality deal flow	4.02
Insufficient deal flow	2.80
Insufficient available time to work with investee companies	2.79
Insufficient available time to evaluate opportunities	2.63
Narrow investment criteria	2.49
Insufficient available investment funds	2.38
Insufficient experience in business angel type investments	2.11
Other	1.67

This result demonstrates that the questionnaire had high internal validity, as it is consistent with the responses to earlier questions. However, the result warrants some discussion. Each year Xénos receives about 400 enquiries from potential companies and these are filtered down to about 60 that are presented to the angels at investment fora or in bulletins. From the statistics contained in Table 1, this means that about 15% of the potential deals are eventually successful and twice this number of companies are offered deals, but fail to agree terms with the investor. Therefore the evidence is that quality deals are offered, but it is clearly not the perception of the angels.

While the main ‘deal killer’ was the inability to agree a price with the entrepreneur; the next most important deal killer was an inability to agree a role for the angel in the company. Interestingly these are the same top two factors found by Mason and Harrison (1996), but in reverse order. During discussions with angels there was a general consensus that entrepreneurs tended to have over ambitious expectations of for their businesses, leading them to grossly over value their companies. This made negotiations problematic and reaching agreement very difficult. From discussions with the angels the problems with the management team or agreeing a role for the angel appeared to be earlier stage deal killers, before negotiations had begun in earnest, but this data was not captured in the questionnaire.

The final section of the questionnaire dealt with the characteristics of the business angels starting with the amount they had available for business angel type investments. Initially, this data had a mean of over £k410, but there were a small number of outliers over £m1; one was £m5. Further deliberations led the researchers to cap the response at £m1 as any amount above this size was regarded as not an angel type investment, especially in Wales. As a result of this 'data cleansing' the reported mean was £k286, with a median of £200k. There were three non-responses to this question. It was possible to compare the means on a regional basis and interestingly it was investors in North and Mid-Wales who had the most available funds to invest, followed by investors outside Wales and then South Wales, see Table 11.

Table 11 Amount available for angel-type investments

Region	No.	Mean
North/Mid	13	£355k
South	24	£237k
Other	8	£325k
Total	45	£286k

The main competing sources of investments opportunities were the property market and the stock market.

Over two-thirds of the sample were what Sohl (1999) describes as "cashed-out entrepreneurs" obtaining their funds from their own business or from the sale of their own business, see Table 12.

Table 12 Sources of investments funds

Own business/Sale of own business	66%
Stock market/investment income	11%
Family business	7%
Other	7%
Lump sum (retirement/redundancy)	5%
Inheritance	3%

Again it was interesting to note that those angels whose primary source of investment funds was from their own business or the sale of their own business had significantly more funds available to invest (£k343) than those where the funds from other sources (£m150).

When asked how experienced they consider themselves in different types of organisation, the profile revealed a small business bias; see Table 13.

Table 13 Experienced in different types of organisation
(Scale of 1(little or no experience) to 5 (most experience))

	Mean	Std. Dev.
Small company	4.21	1.129
Medium size company	3.46	1.224
Large national	2.67	1.461
Multi-national	2.65	1.353
Other	1.63	1.188

This is consistent with Table 12 and is the profile desired for angels seeking to help small firms, compared to the survey of angels in Scotland that reported a lack of experience of small businesses, which Paul *et al* (2003) argue was not helpful in securing deals with entrepreneurs. This result may also have an influence on Table 9, as the right experience profile should enable more profitable investment outcomes.

About two-thirds of the angels were gradates, but about one-third did not posses a higher-level qualification, see Table 14. Only a minority had obtained masters or doctorates. A comparison on the amount available to invest and qualifications found that those without a higher education qualification had £k341 (n=17) available to invest compared to just £k225 for those with a degree (n=27).

Table 14 Higher education qualifications

Level	No	%
Degree	30	64%
Masters	9	19%
Doctorate	5	11%
Professional	25	53%

(n = 47)

The age profile of respondents was skewed to over 50 years of age and was composed almost entirely of males (just one female); see Table 15. 75% were in the range 41-60, similar to the findings of Mason and Harrison (1994).

Table 15 Age Profile

Range	%
31- 40	12.5
41- 50	29.2
51- 60	45.8
>61	12.5
Total	100.0

In terms of the region in which they were willing to invest, there was a clear bias to South Wales as shown in Table 16. The topography of Wales is one of large hills and mountains with the main conurbations located on or near to the North East and South East coastlines; the largest concentration is located along the former South Wales coalfields. The transport linkages between North and South Wales are notoriously poor. Driving times between Cardiff and Bangor or Swansea to Wrexham for example are in excess of 4 hours, (train links are worse) and Paul *et al* (2003) found that only 22% of business angels in Scotland were prepared to travel over 3 hours to visit investment companies. This result is therefore not unexpected and reflects the distribution of the population and the problems associated with inadequate transport links. However, by way of possible compensation, the angels from North and Mid Wales had more funds available to invest, see Table 11.

Table 16 Regions where angels were willing to invest

Region	Willing to invest
North/Mid Wales	50%
South Wales	72%
Outside Wales	54%

Discussion

There are some unique characteristics about the angels belonging to Xénos. Data from the deals completed and their size implies that the average deal size appears to be significantly higher than the UK average. While 'net worth' figures were not obtained, the average fund available to invest was just under £k300 and even higher in some parts of Wales. Coupled with a preference for syndicating, this could mean that angel deals in Wales may be higher than elsewhere in the UK. Another unique feature is linked to the topography of Wales rather than to the characteristics of the angels. There are parts of the principality where angel investment will be more difficult to obtain due to the location and the travelling time needed to visit the investee company. One interesting finding was that the angels in the network from outside Wales were all in the South of England, further restricting the possibility of businesses in North and Mid Wales obtaining finance from angels from the Midlands and the North East of England who may find the travelling time to these parts of Wales more acceptable.

There are similarities between the Xénos membership and their contemporaries in the UK and the rest of the world. They are male, with the vast majority aged between 41-60, and have made their fortunes through managing successfully their own businesses. They invest for capital gain and for intrinsic rewards. There is limited evidence to suggest that some may be more altruistic than may be expected and this may reflect a regional context or sense of national identity and pride. This requires more evidence, but may be a useful line of enquiry especially as it may increase participation from ex-patriot Welsh businessmen located in England and elsewhere. The angels prefer to take a 'hands-on' role in start-up or early stage investments.

Possibly as a result of their relevant business background, which was mainly in small firms, the angels appear to be relatively successful with a high percentage breaking even or making profits than is expected of risky investments. This is good news for the small firms that are fortunate enough to obtain finance and assistance from accessing the Xénos network.

As far as Xénos are concerned some of the criticisms of BANs identified by Harrison, Dibben and Mason (1997) could be detected. Most noticeable, this was in the quality of deals available, where recommendations from business associates and friends were placed higher than the deals available from the BAN. However, given the operating constraints applied to Xénos, it is difficult for them or any network to operate impartially and add the value that the angels sought. There is evidence from the investment ratio that quality deals are made available and more could be completed if price negotiations were more successful.

Conclusions

The angels in this survey are members of Xénos, a publicly funded regional/national not-for-profit network. They operate in Wales, a relatively deprived region of the UK, where their activities encourage enterprise, innovation, business growth and employment and are consistent with the economic policy objectives of the National Assembly. This is the first ever survey of their attitudes, behaviours and characteristics and the study makes an important contribution to knowledge, providing a benchmark for further work in the future. To maintain anonymity a postal survey was completed with a reasonably good response rate. In order to counter the limitations of this method, qualitative data was obtained from presentations of the results to a two groups of angels.

While the response rate to the survey was good, the overall sample size was not large enough to enable detailed statistical analysis. However, from the descriptive analysis alone a great deal of useful information has been derived that was previously unknown. The discussion of the results with two groups of angels provided the opportunity to add a qualitative dimension to the work, which enabled some of the limitations of the survey data to be countered.

Further research is required and Xénos have found the survey and presentations to be so useful that it is planned to be an annual data gathering exercise. In future studies, the questionnaire instrument will be refined further, with questions amended, replaced or removed as necessary. Intertemporal analysis will enable trends to be identified, further enhancing the utility of the information provided. It may also be possible to combine data with other BAN surveys to provide inter-regional and inter-national comparisons.

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