# WHY BUSINESS ANGELS REJECT INVESTMENT OPPORTUNITIES: IS IT PERSONAL?

ABSTRACT

A major focus of research on business angels has examined their decision-making processes and investment criteria. As business angels reject most of the opportunities that they receive, this article explores the reasons informing such decisions. In view of angel heterogeneity, investment opportunities might be expected to be rejected for differing reasons. Two sources of data are used to examine this issue. Face-to-face interviews with 30 business angels in Scotland and Northern Ireland provided information on typical 'deal killers' This was complemented by an internet survey of UK that attracted responses from 238 UK business angels. The findings confirm that the main reason for rejection relates to the entrepreneur/management team. However, angel characteristics do not explain the number of reasons given for opportunity rejection nor do they predict the reasons for rejecting investment opportunities. This could be related to the increasing trend for business angels to join organized groups which, in turn, leads to the development of a shared repertoire of investment approaches. We suggest the concept of 'communities-of-practice' as an explanation for this finding.

KEY WORDS: entrepreneurial finance, business angels, angel characteristics, investment decision, rejection

## 1. INTRODUCTION

It is widely accepted that business angels are the main source of funding for new and early growth businesses seeking risk capital (Mason and Harrison, 2015). Until recently, much investment activity occurred 'under the radar' and so remained undocumented; however, angels are increasingly organising into managed angel groups (Mason et al, 2013; Carpentier and Suret, 2015; Croce et al, 2016). This enables investment activity to be documented - for example, by national angel associations. Such evidence confirms previously speculative estimates (Gaston, 1989; Mason and Harrison, 2000) regarding angels domination of early stage investment. The European Business Angel Network (EBAN) (2014) estimates that in Europe, business angels invest €3 for every €1 invested by venture capital funds in the early stage investment market. Moreover, the available evidence demonstrates that angel investment activity has been increasing in recent years (EBAN, 2014;

Mason and Harrison, 2015; NACO, 2016). Meanwhile, angel groups – as a result of their greater financial capacity - are making larger investments and more frequent follow-on investments compared to those made in the period when solo angels dominated (Mason et al, 2013; Mason and Harrison, 2015). The businesses they invest in are typically innovative, technology-oriented and growth-oriented. Thus, business angels play a key role in underpinning an entrepreneurial economy. As a consequence, they have become a key focus for governments seeking to promote business start-up and growth (Mason, 2009; OECD, 2011).

In view of the significance of angel investing and the associated attention from policy-makers, it is essential to develop a deeper understanding amongst the key participants (entrepreneurs, angels, potential angels, advisers and policy-makers) of how the market works. One critical issue is the angel's investment decision; it is known that they reject a very high proportion of the deal flow presented to them. For example, a Canadian study reported that angels only invest in approximately one in 40 of the deals reviewed (Riding et al., 1995) with 73% rejected at the start of the process (first impressions), 16% at initial screening, and 6% at the due diligence stage leaving just 3% consummated. A study of UK angel networks noted that only 30% of funding proposals went beyond the initial screening process and overall, fewer than 3% attracted funding (Mason and Harrison, 2015). An angel group in Quebec invested in only 2.4% of the proposals received (Carpentier and Suret, 2015) whilst only 4% of potential investments submitted to an Italian angel group were successful at the pre-screening and screening stages (Croce et al, 2016).

These high rejection rates have prompted substantial research on the investment criteria of business angels – the factors that they consider (or not) when evaluating investment opportunities. Research indicates that the emphasis changes over the process, as those opportunities which pass the initial screening stage (typically less than 10 %) are subject to closer scrutiny (Haines et al., 2003; Paul et al., 2003; Maxwell et al., 2011; Mitteness et al.,2012; Brush et al., 2012). However, these studies generally do not focus specifically on the reasons why angels reject specific deals. This is an important omission because, as Feeney et al (1999) have noted, the reasons for investing in an opportunity (i.e. saying yes) are not the mirror image of the reasons for rejection although it is these reasons that are most relevant to entrepreneurs.

By looking specifically at the rejection reasons – or 'deal killers' - this article is therefore positioned differently from much of the literature on business angel decision-making. It addresses three issues. First, what are the reasons why business angels reject investment opportunities? Second, how many reasons do business angels give for rejecting investment opportunities – does a single deal killer typically dominate? Third, and reflecting the growing recognition of the diversity of business angels, to what extent do they reject opportunities for the same reasons. Specifically, how much variation is there between angels in the number of reasons for rejecting investment opportunities and the reasons given? And to what extent can the attributes of business angels explain these variations?

## 2. LITERATURE REVIEW

There is a considerable volume of research on the investment criteria of business angels covering a variety of different countries and in most cases, based upon questionnaire surveys with check-lists of factors generating *post hoc* responses. The actual phrasing of the questions varies; for example, Brettel (2003) asked for "factors which are taken into account" in an investment decision, Paul et al (2003) asked for the "factors influencing angel investment decisions", and Mason and Harrison (1994) asked for "factors taken into account making informal investment decisions". In other studies, investors were asked for their most important investment criterion (Haar et al., 1988) or to indicate - using a Likert scale - the importance of lists of criteria (e.g., Sudek, 2006). Fewer studies have been based on interviews; for example, Lumme et al (1998) explored what factors influenced angels to invest in an opportunity and Feeney et al (1999) asked "what are the essential factors that prompted you to invest in the firms you choose?". Recognising the growing importance of angel groups, Mason et al (2013), Carpentier and Suret (2015) and Croce et al (2016) have investigated how they undertake the decision-making process, noting how it differs from the process used by independent angels.

There is considerable agreement amongst these various studies that the entrepreneur/management team is the most important factor, with the growth potential of the market and product/service attributes ranked second and third, but of considerably less importance (Mason and Harrison, 1994; Hindle and Wenban, 1999; Brettel, 2003; Stedler and Peters, 2003; Sudek, 2006). Qualitative studies have been able to drill down further, highlighting the importance of the competence, motivation and integrity of the entrepreneur (Lumme et al, 1998) whilst, trust emerges as a significant issue (Harrison et al, 1997; Maxwell et al, 2014). Moreover, it

would appear that angels use a non-compensatory approach to deal evaluation. In other words, they do not allow weaknesses in some aspects of the business to be offset by strengths elsewhere. However, Sullivan (1994) does show that angels are willing to trade off some financial return where firms have socially beneficial products. It is also important to note that most angels undertake limited research and due diligence before investing and spend relatively little time on deliberation and negotiation (Mason and Harrison, 1996a), making their decisions more on "feelings than analysis" (Shane, 2009).

There is somewhat less evidence regarding why angels reject investment opportunities; it is weighted towards responses from questionnaire surveys and here again, there are differences in the precise form of questioning. However, there is a clear consensus that the reasons for rejecting investment opportunities are overwhelmingly associated with perceived weaknesses in the entrepreneur and management team (Haar et al, 1988; Mason and Harrison, 1994). Riding et al (1995) suggest that 80% of rejection decisions are linked to the angel's lack of confidence in the managerial abilities of the principals with Finnish angels overwhelmingly reporting management deficiencies as the dominant reason for rejection ( poor personal chemistry, lack of trust, incompetence, unreasonable expectations, reluctance to share ownership and accept the involvement by the investor) (Lumme et al, 1998). However, Feeney et al (1999) noted that the shortcomings of an opportunity and the desirable attributes of an opportunity, while overlapping are not the mirror image of each other. They note that "while investor perception of poor management was the primary 'deal killer', management ability (while important) is not the primary 'deal maker'. Rather, investors place primary emphasis on the growth potential of the opportunity and the owner(s) capability to realise the potential of the business. Being able to realise the potential of a business … is not simply the converse of bad management" (Feeney et al, 1999: 139-140).

Subsequent research has noted that changes occur in the significance of specific investment criteria as the opportunity passes through the different stages in the investment process, from pre-screen, through screening and on to due diligence (Riding et al, 1995; Feeney et al, 1999; Mitteness et al, 2012; Croce et al, 2016). It has been suggested that the source of the investment opportunity has a significant initial influence on the angel's decision whether to consider the opportunity further (Mason and Rogers, 1997; Riding et al., 1997), with referrals from close associates having lower rejection rates than those that came from sources unfamiliar to the

angel. In effect, angels put greater value on referrals from people they know as the referral source is risking their own credibility when referring the proposal. Croce et al's (2016) study noted that referrals from venture capital funds were more likely to get through the screening stage; Angels then consider how well the proposal 'fits' their knowledge domain and personal investment criteria (Mason and Rogers, 1997; Mitteness et al, 2012). It is only from this point that the attributes of the opportunity are considered. In terms of criteria, Riding et al (1995) report that after the initial screen the importance of the entrepreneur/team increases dramatically while the importance of the product's potential declines (although not by much). The importance of perceived financial rewards also increases, especially at the due diligence stage. However, Mitteness et al (2012) report that the significance of the entrepreneur is strongest at the screening stage; this weakens when angels consider whether to move to due diligence. It has also been noted that whereas the initial screening is based on quantifiable criteria, in the later stages when angels increase their scrutiny, they focus on less quantifiable intangibles, such as the trustworthiness of the entrepreneur, their commitment and passion (Brush et al, 2012). Opportunities that failed to get past the initial screening stage tended to be rejected because of an accumulation of deficiencies - what Mason and Rogers (1997) term a 'three strikes and you're out' approach - whereas rejections later in the process tended to be associated with a single deal killer (Mason and Harrison, 1996b).

The emphasis that angels place on the entrepreneur as both the most significant investment criterion and the dominant deal killer reflects the presence of agency problems. This has two causes: first, agency theory assumes that there is potential goal conflict between the principal, in this case the angel investor, and the agent, with the risk that the agent will seek to pursue opportunistic behaviour damaging the principal's financial interests. However, goal conflicts may not be as important as originally believed. Landström (1992) finds no evidence that the interaction between angels and entrepreneurs is characterised by opportunistic behaviour. Indeed, Kelly (2007: 321) argues that contrary to agency theory, the "relationship between investors and entrepreneurs appears to be infused with high levels of interpersonal trust from the outset". Second, there are information asymmetries, with certain information either expensive for the principal to obtain, or even unavailable, or difficult to interpret. This creates the risk of adverse selection by the principal, investing in a business in which they have been unable to verify the agent's competences or where the agent may have misrepresented themselves. These problems can be addressed by means of contracting. However, as

van Osnabrugge (2000) argues, this creates transaction costs. Angels therefore, seek to deal with agency problems through direct involvement in their investee companies (van Osnabrugge, 2000). Moreover, the entrepreneurial background of most angels means that their involvement has considerable value-added potential (Politis, 2008). In summary, the angel's emphasis on finding the 'right' entrepreneur' (Hsu et al, 2014) reflects agency problems. Fiet (1995) interprets the angel's entrepreneur-centred focus as follows: unlike VCs, angels make relatively few investments and do not have the capacity to undertake detailed market research on industry and market trends. Hence, they rely upon the entrepreneur to manage the market risk. Accordingly, in their investment decision, angels focus on the agency risk on the basis that investing in a business managed by a competent and trustworthy entrepreneur is the best way to reduce market risks.

One of the unresolved issues is the extent to which angel investors differ in how they evaluate investment opportunities and whether they reject investment opportunities for different reasons. It is known that angel are not homogeneous, hence differences in human capital may be a source of variance in their decision to make an investment. Indeed, based on a conjoint analysis Landström (1998: 325) suggests that "the decision-making criteria seem to be specific to the individual and that the investors appear to use different decision-making criteria in their assessment of new investment prospects." Mitteness et al (2012) find that differences between angels, notably in terms of their industry experience, have a moderating impact on their investment criteria and evaluation of funding investment opportunities. Hsu et al (2014: 19) therefore, comment that "conceivably heterogeneity in angel types may affect the nature of the decision criteria that they use."

## 3. DATA SOURCES AND ANALYSIS

### 3.1 Data sources

The article draws on two independent sources of data to address these issues. The first source is face-to-face interviews with 30 business angels based in Scotland and Northern Ireland, undertaken during the first quarter of 2013. The second is an on-line survey completed by 238 business angels. The survey was available to be completed from April to July 2014. This type of research design is commonly referred as "exploratory sequential mixed methods" (Creswell, 2013). Its adoption in this particular study was based on two considerations: facilitation and complementarity (Saunders et al., 2011). Facilitation is associated with the initial qualitative approach being used to identify the list of investment criteria applied in the following

quantitative stage. Complementarity refers to the fact that "results from different methods serve to elaborate, enhance, deepen and broaden the overall interpretations and inferences from the study" (Greene, 2007: 101).

The recruitment of angels for the interview survey was facilitated by the support of the gatekeepers (Paul and Whittam, 2010) of several angel groups publicly listed as members of LINC Scotland, the business angel trade association. The initial approach was made by the gatekeeper inviting some members to participate in the research. These approaches were made in three ways: (i) emails; (ii) in group meetings; and (iii) phone calls. In view of the recruitment process it is not surprising that the sample is dominated by members of angel group (24, or 80%). The additional business angels (six) were recruited by snowballing from the initial contacts. Snowballing is commonly known as the way to "contact one participant via the other" (Biernacki and Waldorf, 1981 p. 151). This technique is particularly useful in the context of research with hidden populations (Browne, 2005), of which business angels is a prime example (Macmillan and Katz, 1992).

The participants in the interview survey were middle-aged (average of 56 years), exclusively male, 90% of whom had a university degree and 60% had a professional qualification. Participants had considerable entrepreneurial experience. Of the 30 angel investors 17 (57%) had previously been involved in starting a new business. On average, participants had 12 years of investment experience. In aggregate these 30 investors had invested in 473 deals, with a median of 10 completed deals. However, reflecting the skewed nature of angel investing the range was from 1 to 77 investments. It is well established that because the population of business angels is not known, individual samples cannot be assessed for their representativeness (Wetzel, 1981). Nevertheless, some comparison with other samples can be a useful reality check. Comparison with two recent UK surveys on the angel market (Mason and Botelho, 2014; Wright, Hart and Fu, 2014) indicates that the sample of interviewees lacks female angels and are more experienced.[1] However, neither of these differences should be considered as sufficiently significant to question the reliability of the sample. First, Harrison and Mason (2007 p.464) suggest that "the informal venture capital market is not differentiated on gender lines". Hence, the lack of gender diversity is not a problem. Second, although scholars have identified that investment experience has an impact on the way angel assess the opportunities (Van Osnabrugge, 1998; Smith et al, 2010;

[1] The median for Mason and Botelho (2014) was between 4 and 6 investments which is very similar to Wright, Hart and Fu (2014) with 5 investments per investor.

Harrison et al, 2015) the sample contains sufficient variation in the level of investment experience: one-third of the participants had made five, or fewer, investments while one-third had completed 15 or more deals.

The on-line survey was also promoted through various angel groups (as is the case with most studies) from across the UK; it is also biased towards members of angel groups, with 86% of respondents being members of one or more such groups (Mason and Botelho, 2014). However, as previously noted (Mason and Harrison, 2010; 2011), many who operate in the visible market as members of angel groups also operate in the invisible market, making investments privately in deals they have sourced. Just under half were members of more than one group; the respondents represented a total of 73 angel groups. As the number of investors invited to complete the survey is unknown, it is not possible to calculate a response rate. However, when published, it constituted the largest survey of angels in the UK.[2] We draw on responses to the question on factors for rejecting an opportunity – respondents could give multiple reasons from a drop-down list. The list of investment criteria used in the online survey was initially tested during the interviews.

Three limitations need to be noted. First, in the face-to-face interviews the way in which the question was asked ('is there a typical deal killer') allowed for generalised responses which did not relate to decisions relating to specific businesses. Second, in the internet survey angels were asked to consider their most recent decision to reject an investment opportunity and respond using a check-list of reasons for rejection. However, it does not indicate the stage in the investment process at which the rejection decision was made, although in view of the evidence reviewed earlier it is legitimate to assume that in most cases it related to the initial screening stage. Finally, both samples were dominated by relatively experienced angels and those who are members of angel groups. But, as noted earlier, there is no benchmark against which any sample of angels can be compared for its representativeness. Moreover, in view of the recent emergence of angel groups it is unclear the extent to which angel group members differ from those angels who invest independently. And, as noted above, many angel group members also invest on an individual basis (Mason and Harrison, 2010; 2011).

[2] In fact, it is the second largest ever survey of business angels in the UK, being exceeded only by the 2014 National of Angels Survey undertaken by the Enterprise Research Centre, University of Warwick on behalf of the UKBAA. This survey was undertaken with substantially more resources than our own.

### 3.2 Analysis

Interviews were transcribed and the question on 'typical deal killer' was coded independently by two authors. The data were coded following an axial coding approach (Miles and Huberman, 1994) where "categories are systematically developed and linked with subcategories" (Strauss and Corbin, 1998, p. 143). The objective of was to identify the number of deal killers reported and the specificities of each deal killer. The coding scheme comprised two levels: an initial coding level considered the investment criteria[3] and a second level reflected specific details of the investment criteria. This process was particularly useful to get a deeper understanding of the reasons for rejection.

Two procedures were applied to the analysis of the on-line survey data. The first was post hoc comparisons. A Scheffe analysis was conducted to assess if angels who give one rejection reason differ from others that give either two or three or more reasons for rejection. The Scheffe test is particularly useful with groups of unequal size since the assumption of homogeneity of variance is weaker. The second was an independent t-test where the mean for investments rejected for a specific reason is compared with investments rejected for any other reason. Levene's tests of homogeneous variance were performed in both procedures to examine the assumption of equal variance between groups (Hair et al. 1998). Three significance levels are reported, 1%, 5% and 10%. Labovitz (2006) defends the use of higher significance levels than 5% in the context of exploratory research.

## 4. WHY DO ANGELS REJECT INVESTMENT OPPORTUNITIES?

The 30 respondents in the interview survey collectively provided 47 deal killers. Just one investor was unable to offer any deal killers, so the average was 1.6 deal killers per investor. Only one investor identified more than two deal killers. People factors are the dominant deal killer, mentioned by 27 of the 30 angels. Other deal killers to attract more than one mention were product/market, financial attributes and investor fit (Table 1).

TABLE 1 ABOUT HERE

[3] Used the same coding scheme of Mason and Botelho (2016) for the initial coding level.

Looking in more detail at the interview responses, there are a number of aspects of ‘the people’ that are deal killers. Four themes dominate. First, by far the most frequently mentioned was the concern that the entrepreneur was not open and straightforward, believable, trustworthy and honest.

- “You just don’t believe in the people, don’t feel you trust them or they may be .... not open and honest. That is always worrying.”
- “It’s usually the discovery that people are not what they seem. They’ve either lied or covered the truth, half-truth that makes me very, very uncomfortable.”
- “Honesty. In what they have told you or should have told you. Quite often people won’t lie to you directly but if they haven’t told you a material fact, that they’ve answered the question as opposed to what you need to know, I just wouldn’t be bothered with it.”
- “If there’s any dishonesty, any sign of duplicitous behaviour ... that’s really, really important, that’s a big deal killer.”

Second, angels are looking to invest in entrepreneurs who appear knowledgeable and competent.

- “A deal killer for me is guys who come in here and ... do not demonstrate a decent understanding of the market or the competition that they’re focused on.”
- “I don’t trust an amateur. I don’t mind that they get stuff wrong but they had best be straight and open and answer questions without ducking the issue.”
- “I would ask lots of questions and if the answers I got ...were not prompt and clear and lucid and transparent then I would be concerned. I would ask leading difficult questions and I would expect very prompt answers, I would not expect them to have to research the answers. I would expect them to know the answers.”
- “So often I come across inventors, promoters who have their idea of what the world is like. And they are inflexible to having that modified in order to fit better with investors, then that is it.”
- “People who are talking to you and you can sense they don’t understand what a profit is, they don’t understand the basics of commerce. You just ask a simple couple of questions and they get things all wrong, they don’t understand anything, they haven’t a clue about what they are talking about.”

Third, entrepreneurs have to exhibit realism, in particular about valuation and size of equity share.

- "Another deal killer is being unrealistic. .. You get people who are very hung up about having to sell equity. You have to do that. It's a fact of life. And you get people who are very hung up about having 51% of whatever. It's a nonsense argument."
- "People not being open and honest about the valuation."
- "People who are unrealistic about the growth projects, aren't aware of the competition… if people are realistic about the risks that's a big plus for me. If people are trying to do a sales job which ignores the pitfalls and risks then that's a big negative. I don't like that. I would far rather people were realistic about the risks around the business and the obstacles they have to success."
- "Lack of realism is the main [deal killer]"

Finally, the angel has to feel that there is a personal rapport with the entrepreneur.

- "If I don't have a personal rapport with the individual it will never get off the ground... I think to myself 'Do I want to be dealing with this guy for the next two or three years in an investment?' And irrespective of how good he is I just think I will not do the investment. …. That is a potentially very irrational way of looking at things. But it is a deal killer."
- "... If you don't like them. Sometimes you come across people that you can't stand."

The internet survey asked participants to recall the latest investment opportunity they have rejected and to give the reasons for this decision. Respondents were given a list of seven investment criteria and could provide more than one reason to justify the final verdict; this list had been used in previous investment decision studies (see Botelho and Mason, 2013; Botelho et al, 2015a; 2015b).

TABLE 2 ABOUT HERE

Similar to the interview responses, the internet survey indicates that the two most common reasons for angels to reject an investment opportunity are associated with the people and product/market. The people category, which included all of those involved with the investment opportunity (entrepreneur, management team, etc…), was the most frequently cited. Although the percentage of investors highlighting the importance of people in

a rejection decision is lower than in the interview study this is explained by the interview taking the form of a generic question while the online survey question related to a specific investment opportunity (their most recent). The second most frequently given reason for angel investors to reject an opportunity was the product/market, offered by 49% of respondents. A further three criteria (attributes of the business, financial attributes and business plan) were each cited by a quarter of respondents as a rejection decision. The most surprising result is that respondents did not give greater emphasize to investor attributes as a reason to reject. A possible reason for this might be linked with the growth of syndication. Investing in groups exposes angels to a wider range of opportunities, enabling them to invest in businesses on the 'coat tails' of other investors in the group who do have the relevant knowledge (Mason et al., 2013), the effect of which is to reduce the importance of investment fit.

This evidence has considerable practical relevance. For entrepreneurs seeking finance from business angels, it helps to explain why they may get rejected and ways to avoid this in future pitches to potential investors. It also suggests that the manner in which investment readiness programmes (Mason and Harrison, 2001; Mason and Kwok, 2010) have been designed underplays the significance and multi-dimensional nature of these people factors as reasons why businesses do not get funded.

## 5. HOW MANY REASONS DO ANGELS GIVE FOR REJECTING INVESTMENT OPPORTUINITIES?

The interviews revealed that the vast majority of angels identify only one or two deal killers; this was confirmed in the internet survey (Figure 1) which indicates that some 71% of rejections were based on just one or two reasons. The average number of reasons for rejection is two. This supports Maxwell et al (2011) who suggested that angels use an elimination-by-aspect approach to deal evaluation decision heuristics in which they focus upon a small number of rejection reasons that can be observed relatively quickly. This enables them to quickly reject large numbers of opportunities that have 'fatal flaws' and hence, are not investable enabling them to focus on the small number of promising investment opportunities.

FIGURE 1 ABOUT HERE

## 6. THE INFLUENCE OF ANGEL CHARACTERISTICS

6.1 Number of reasons for rejection

The evidence indicates that most angel investors reject investments on the basis of just one or two fatal flaws; however, some offer multiple rejection reasons. This raises the question whether the sensibility to one or two flaws, and the converse, is investor-related. Three groups of angels in the on-line survey were identified: those giving one reason for rejection; those giving two reasons and those giving three or more reasons. Table 3 provides the results for the Scheffe tests. Surprisingly, the results show no statistical differences between the groups in terms of their average scores for 14 control variables reflecting angel characteristics. These control variables reflect demographics, education, entrepreneurial experience, investment experience and syndication. Hence we cannot differentiate between business angels on the basis of the number of given rejection factors.

6.2 Rational for rejection

The final analysis was developed to test whether angel characteristics could explain differences in the reasons to reject. To conduct these tests dummy variables were constructed to measure if the investment criterion was drawn upon as a reason to reject. This enabled a comparison between investment decisions that were rejected for a particular reason in comparison to those rejected for other reasons. Table 4 reports all the T-tests; the analysis only reports upon those where statistical significance was found.

TABLE 4 ABOUT HERE

In the majority of the t-tests, the results show that investors who rejected an opportunity for a specific reason do not differ from those who did not explicitly consider that criterion as a rejection factor. Of the 98 t-tests only eight (8%) were significant. Five of those tests were significant at a 10% level; two tests were significant at a 5% level and only one test significant at a 1% level. The significance of these eight tests could be due to random sampling error. Urdan (2005: 66) observes "that it is possible to get even large differences just due to random sampling error, or chance". The low number of significant tests reflect a type I error hypothesis; i.e. rejecting the null hypothesis when it is true (Dougherty, 2007). The likelihood of a type I error occurring is equal to α. An α of 0.10 indicates a likelihood of a type I error occurring in 10% of the tests conducted which is similar to the proportion of significant tests. Hence, the 98 independent t-tests were not able to establish that the heterogeneity of the angel population is also reflected in investment rejection criteria. Contrarily, the

results indicate that business angels who reject an opportunity for a particular reason do not differ from their counterparts who gave other rejection reason.

## 7. CONCLUSION

Business angels reject the vast majority of the investment opportunities that they receive. This article has drawn on both interview and survey data to analyse why business angels say 'no' to investment opportunities. There is considerable research on the investment criteria of business angels relatively little attention has been afforded specifically to rejection reasons. Previous research (notably Feeney et al, 1999) has established that it is potentially misleading to infer the reasons for rejection from the investment criteria used to appraise deals. This study shows that the entrepreneur/team is the key reason for rejecting investment opportunities; specifically, if they are not open and straightforward, believable, trustworthy and honest, if they do not appear knowledgeable and if they are deemed to be unrealistic regarding valuation and equity share. It also demonstrates that rejection is generally based on just one or two reasons. However, contrary to our expectations there was no evidence that the number of reasons for rejecting investment opportunities is associated with angel characteristics or that the reasons for rejecting opportunities are associated with angel characteristics, as several authors have speculated [Landström, 1998; Mitteness et al, 2012; Hsu, 2014)]. There are wo possible reasons for this; first, both samples are dominated by experienced angels, although not exclusively so. It can be argued that the most significant differences in the approach to investing are based on prior experience (Smith et al, 2010; Harrison et al, 2015), and neither sample included large numbers of novice and nascent angels. Second, diversity in angel characteristics may not be reflected in their investment processes. Harrison et al (2015) suggest that business angels learn from the experience of others. The growth of angel groups (Sohl, 2012; Mason et al, 2013) could therefore, be leading to the emergence of a 'community of practice' (Lave and Wenger, 1991) – a collection of practitioners who engage on an ongoing basis in the pursuit of some common endeavour. This ongoing engagement results in the development of a repertoire of ideas, ways of doing and resources – experiences, stories, tools, ways of addressing recurring problems – and practices that are shared to a greater or lesser extent across members (Wenger, 2000). Over time, this might be expected to result in a growing standardisation of investment assessment.

In summary whereas the angel's investment decision is personal in the sense that is it very much influenced by the entrepreneur, there is no evidence that the personal characteristics of angels influence their investment decisions. This suggests that differences in the reasons for rejecting investment opportunities are associated with the characteristics of the investment and not the investor.

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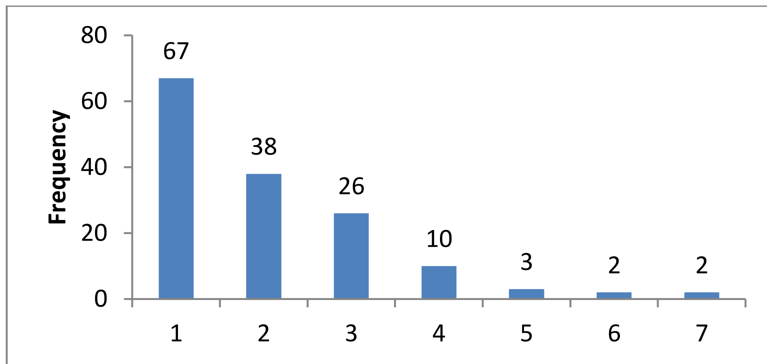
Table 1. Is there a typical 'deal killer'?

| 1st level | Number of investors citing this factor | % of investors | 2nd level | Number of investors citing this factor |
|---|---|---|---|---|
| Business plan | 1 | 3 | • Unrealistic business plan | 1 |
| Investor fit | 3 | 10 | • Not interested in the business<br>• Lack of interest in the business<br>• Doesn't meet investor's criteria | 1<br>1<br>1 |
| Financial attributes | 4 | 13 | • Inflated Valuation<br>• Unwilling to discuss valuation/equity share | 2<br>2 |
| Product/market | 12 | 40 | • Product: not sufficiently differentiated/unique<br>• Quality of product<br>• Intellectual property protection<br>• Scaleable technology<br>• Lack of confidence in the technology<br>• Solving problems<br>• Size of market<br>• Market potential<br>• Changing market conditions<br>• Regulation | 1<br>1<br>2<br>1<br>1<br>1<br>2<br>1<br>1<br>1 |
| People | 27 | 90 | • Character: not straightforward, honest, open, believable, trustworthy<br>• Level of knowledge, capability<br>• Lack of realism<br>• Personal rapport<br>• Attitude (arrogant, aggressive, nervous, inflexible)<br>• Controlling, inflexible in negotiation | 11<br>6<br>4<br>3<br>3<br>2 |

Note: investors could give more than one deal killer

Figure 1.Number of reasons given for rejecting investment opportunities




Source: internet survey. 148 rejected investment opportunities.

Table 2 – Reasons to reject

| Reason to reject | Number of investors citing this factor | Percentage of investors % |
|---|---|---|
| Investor Attributes | 11 | 7 |
| Exit | 19 | 13 |
| Business Plan | 35 | 24 |
| Financial Attributes | 37 | 25 |
| Attributes of the Business | 39 | 26 |
| Product/Market | 73 | 49 |
| People | 88 | 59 |

Note: respondents could give up to seven reasons

Table 3 – Scheffe tests

| | Group 1 | Group 2 | Group 3 |
|---|---|---|---|
| | 1 reason to reject | 2 reasons to reject | 3 or more reasons to reject |
| Number of investors | 67 | 38 | 43 |
| Gender | 1.07 | 1.13 | 1.02 |
| Age | 3.66 | 3.39 | 3.74 |
| University Degree | 1.27 | 1.13 | 1.28 |
| Professional Qualifications | 1.30 | 1.42 | 1.30 |
| Involved in a Management Buyout | 1.63 | 1.68 | 1.51 |
| CEO of an SME | 1.37 | 1.34 | 1.37 |
| Board Member of a medium or large company | 1.37 | 1.47 | 1.44 |
| Years investing | 10.36 | 8.87 | 10.24 |
| Number of Investments | 3.81 | 4.03 | 3.74 |
| Part of an angel group | 1.07 | 1.03 | 1.09 |
| Years as investor before joining a group | 7.67 | 6.28 | 5.41 |
| Invest with others | 4.13 | 4.14 | 4.51 |
| Number of angel groups | 1.81 | 2.05 | 1.90 |
| Crowdfunding investor | 1.76 | 1.76 | 1.81 |

Average score for each group. No statistical significance was found.

Source: internet survey. 148 rejected investment opportunities.

Table 4. T-test for rejection criteria differences.

| | | *The People* | *Product Market* | *Exit* | *Business Plan* | *Investor Attributes* | *Attributes of the Business* | *Financial Attributes* |
|---|---|---|---|---|---|---|---|---|
| *Gender* | G1 | 1.10 | 1.08 | 1.08 | 1.07 | 1.07 | 1.06 | 1.09 |
| | G2 | 1.06 | 1.07 | 1.05 | 1.09 | 1.18 | 1.13 | 1.03 |
| *Age* | G1 | 3.57 | 3.64 | 3.61 | 3.57 | 3.60 | 3.67 | 3.59 |
| | G2 | 3.65 | 3.59 | 3.63 | 3.77 | 3.82 | 3.46 | 3.68 |
| *University Degree* | G1 | 1.28 | 1.24 | 1.23 | 1.22 | 1.23 | 1.24 | 1.23 |
| | G2 | 1.20 | 1.23 | 1.26 | 1.29 | 1.27 | 1.23 | 1.24 |
| *Professional Qualifications* | G1 | 1.22* | 1.37 | 1.36** | 1.34 | 1.32 | 1.32 | 1.32 |
| | G2 | 1.41* | 1.29 | 1.16** | 1.31 | 1.45 | 1.36 | 1.35 |
| *Involved in a Management Buyout* | G1 | 1.60 | 1.68*** | 1.61 | 1.64 | 1.61 | 1.60 | 1.59*** |
| | G2 | 1.61 | 1.53*** | 1.58 | 1.51 | 1.64 | 1.64 | 1.65*** |
| *CEO of an SME* | G1 | 1.45*** | 1.37 | 1.36 | 1.36 | 1.35 | 1.33 | 1.33 |
| | G2 | 1.31*** | 1.36 | 1.37 | 1.37 | 1.55 | 1.46 | 1.46 |
| *Board Member of a medium or large company* | G1 | 1.40 | 1.39 | 1.43 | 1.45 | 1.42 | 1.42 | 1.38 |
| | G2 | 1.43 | 1.45 | 1.37 | 1.31 | 1.45 | 1.41 | 1.54 |
| *Years investing* | G1 | 9.2 | 10.55 | 9.33** | 10.19 | 10.86 | 10.35 | 10.65 |
| | G2 | 10.43 | 9.93 | 14.74** | 8.49 | 11.27 | 9.84 | 8 |
| *Number of Investments* | G1 | 3.73 | 3.96 | 3.81 | 3.90 | 3.84 | 3.89 | 3.84 |
| | G2 | 3.92 | 3.73 | 4.05 | 3.66 | 3.91 | 3.72 | 3.86 |
| *Part of an angel group* | G1 | 1.05 | 1.08 | 1.06 | 1.07 | 1.06 | 1.05*** | 1.06 |
| | G2 | 1.08 | 1.05 | 1.11 | 1.06 | 1.18 | 1.13*** | 1.08 |
| *Years as an angel investor prior to joining a group* | G1 | 6.25 | 7.67 | 7.97 | 7.86 | 6.21 | 7.7*** | 7.92 |
| | G2 | 7.94 | 6.46 | 6.71 | 6.7 | 7 | 5.21*** | 6.52 |
| *Invest with others* | G1 | 4.09 | 4.10 | 4.19 | 4.19 | 4.21 | 4.24 | 4.20 |
| | G2 | 4.35 | 4.38 | 4.65 | 4.42 | 4.67 | 4.27 | 4.38 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Number of angel groups* | $G_1$ | 1.93 | 1.91 | 1.93 | 1.95 | 1.91 | 1.83 | 1.91 |
| | $G_2$ | 1.88 | 1.88 | 1.71 | 1.73 | 1.78 | 2.12 | 1.85 |
| *Crowdfunding investor* | $G_1$ | 1.80 | 1.80 | 1.78 | 1.77 | 1.78 | 1.77 | 1.76 |
| | $G_2$ | 1.76 | 1.75 | 1.78 | 1.80 | 1.73 | 1.79 | 1.81 |

1% significance - *  5% significance - **  10% significance - ***