UNIVERSIDADE CATÓLICA PORTUGUESA

Business Angels in Portugal
The Investment Process

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What is the investment process followed by the Portuguese Business Angels? What are the main differences when compared to the USA model, and in which steps of the process?

It is the purpose of this thesis to clarify the investment process and provide a comprehensive and aggregated approach of the angel investment process in Portugal.

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ABSTRACT

Much has been said about the angel investing process and steps in literature, but there's still a lack of research when it comes to the aggregated approach of the investment process. With the recent development of the early stage market in general and the rise of the business angels activity in particular, in Portugal, this subject becomes even more relevant. What is the investment process followed by the Portuguese business angels? What are the main differences when compared to the USA model, and during which steps of the process do these differences occur? This thesis clarifies these differences and the investment process and thus provides a comprehensive and aggregated approach of the angel investment process in Portugal. The proposed empirically based model of angel investing in Portugal consists of 3 stages and 9 steps. Differences between both models exist in all the steps of the process.

RESUMO

Existe extensa literatura sobre os vários passos do processo de investimento de business angels, subsiste ainda um vazio na investigação sobre uma versão agregada deste processo. Com o recente desenvolvimento do mercado de capital de risco em geral, e da actividade de business angels em particular, em Portugal, este tópico adquire maior visibilidade e importância. Qual é o processo de investimento seguido por business angels em Portugal? Quais são as diferenças mais relevantes entre o modelo de investimento em Portugal e nos Estados Unidos, e em que fases do processo são mais acentuadas? Esta tese clarifica o modelo de investimento Português e as suas diferenças face ao Americano, estabelecendo assim um modelo agregado de investimento seguido por business angels em Portugal. O modelo proposto é composto por 3 fases e 9 passos. Foram encontradas diferenças entre os modelos de investimento em todos os passos do processo.

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CONTENTS

1. Introduction

1.1. Research Topic

Due to its nature, the angel activity lacks research, especially when compared to venture capital. There are several problems affecting the way researchers approach this subject. Existing literature on angel investing has generally taken a disaggregated approach and focused on the individual stages of the investment process. According to international literature, researchers have focused on the venture capital investment process as a proxy for the business angels' activity and investment process.

When it comes to Portugal, this lack of research on the subject takes the form of an even bigger gap, as there is no research, to the author's knowledge, about the angel investment process in Portugal. Angel investing is a fairly recent activity in Portugal and that is why this thesis will look at the U.S. angel investment process as the proxy, in order to be able to understand the Portuguese investment process. This will be achieved by building a survey based on the American standards of angel investing.

1.2. Paper Structure

The thesis is organized in the following way. First, existing research on the business angel investment process in the U.S. is reviewed. Based on this literature, the investment process in the U.S. is established and the survey is created from this model. This survey is the process through which the conclusion is obtained.

The research results are then presented, from which an empirically based model of angel investment process in Portugal is derived. This is followed by a consideration of the key factors underpinning the business angel investment process and a discussion about the differences between the American and the Portuguese model of angel investment processes.

Finally, the thesis concludes by identifying areas for further research.

1.3. Expected Outcome

This research aims to define the Portuguese angel investment process. The expected outcome will be achieved by gathering information from the Portuguese business angels, in order to develop a deep understanding about the angel investment process in Portugal. Secondly, after understanding this process as a whole, it aims to identify the differences when comparing it with the American process, and in which steps of the process these differences are relevant.

It is the final aim of this thesis to be a reference for the Portuguese business angels who want to follow or even be closer to the American way of investing.

2. Literature Review

2.1. Entrepreneurial Finance

The entrepreneurial firm is a "nascent firm or proto-firm facing a problem of coordinating systemic change in economic capabilities" (Langlois, 2005). Due to its nature and associated risk, one of the most important problems this kind of firms face while transforming from entrepreneurial ideas to revenue generating companies is the procurement of capital (Wong, 2002).

Historically, academia has tended to see and study entrepreneurial finance as an entirely different field from corporate finance (Damodaran, 2001). This approach implies the idea that the issues faced by small, privately owned firms in the entrepreneurial finance field are significantly different from those faced by larger and often public firms in traditional finance theory. For the past few years, academia has been recognizing that the situations faced by these two types of firms are basically the same. These situations arise from the fundamentals that are the basis of corporate finance theory: agency problems and information asymmetries (Jones and Butler, 1998). Traditional finance differs from entrepreneurial finance theory in the scale of these fundamentals, agency problems and information asymmetry (Dennis, 2004). Therefore they require different approaches, both by the firms seeking capital and by the potential funders. These different approaches lead to separate investment processes between investors in entrepreneurial firms and investors in larger, older, often public firms[1].

Although it is easy to identify research in literature discussing entrepreneurial finance in a broad way, when addressing the early stage and specifically the angel investment process, the quality and quantity of the research becomes narrow. This is due to the degree of opacity characterizing business angels, which makes it really hard to get knowledge about this specific subject (Prowse, 1998).

2.1.1. Financing Stages

Firstly, it is relevant to understand the different financing stages in order to clearly separate entrepreneurial from corporate finance theory. The different stages are those below:

- Seed Stage[2]:

[1] OECD 2011 - "Financing high growth firms"

[2] Citation from EBAN Toolkit 2009, www.eban.org/resource-center/publications/eban-publications

    - Seed Capital: Financing provided to research, assess, and develop an initial concept before a business has reached the start-up phase.
    - Start-up: Financing provided to companies for product development and initial marketing. Companies may be in the process of being set up or may have been in business for a short time, but have not sold their product commercially.
- Early Stage[3]:
    - Other early stage: Financing to companies that have completed the product development stage and require further funds to initiate commercial manufacturing and sales. They will not yet generate a profit.
    - Venture Capital: Provision of equity for generally young, unquoted companies with high growth potential and high commercial uncertainty – ranges from seed to late stage investment with key feature of being "hands-on" involvement by the finance provider.
- Late Stage[4]:
    - Growth Capital: Growth capital is a type of private investment, most often a minority investment, in relatively mature companies that are looking for capital to expand or restructure operations, enter new markets or finance a significant acquisition without a change of control of the business.
    - Mezzanine financing: A hybrid of debt and equity financing that is typically used to finance the expansion of existing companies. Mezzanine financing consists of debt capital that gives the lender the rights to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full.
    - Turnaround: The financial recovery of a company that has been performing poorly for an extended time.

Since the scope of this study is related to seed and early stage funding, where business angels invest the most[5], is important to provide a more extended insight on what surrounds this specific stage of financing.

[3] Citation from EBAN Toolkit 2009, www.eban.org/resource-center/publications/eban-publications

[4] Citation from Investopedia - http://www.investopedia.com/

[5] See exhibit 1 "Finance hierarchy"

2.1.2. Early Stage Financing

Due to the high and positive impact entrepreneurial firms assume in the American economy[6], entrepreneurial researchers have been paying more interest to the way these firms access capital. The relevance of early stage financing has been explored, as it is one of the most important factors in entrepreneurial firm growth and survival (Cassar, 2002). Entrepreneurial firms face a constraint related to their ability to access capital, which often becomes one of the most important issues facing these firms (Rajan and Zingales, 1995). Due to the fact that such firms lack tangible assets and are typically not yet profitable, debt financing is usually not an option (Auken and Neeley, 1996). As a consequence, there are three major sources of external equity financing: institutional venture capital funds[7], informal venture capital funds[8] or business angels, and corporate venture capital (Dennis, 2004). Institutional venture capital has been exalted in academic research and in the media, due to its visible success backing companies that go to IPO, as the main source of outside equity finance accessible to early stage companies. In spite of this fact, evidence shows that business angels' contribute twice as much to early stage companies in the U.S.[9], investing more capital in more companies (Wong, 2002).

2.1.2.1. Venture Capital

Venture capital is capital provided to early stage, high potential, high risk, and growth startup companies[10]. Several studies examine the role of venture capitalists and state they play an active role in the companies in which they invest (Winton and Yerramilli, 2007). As an early report on this subject, Gorman and Sahlman (1989), were able to identify venture capitalists as active investors who would visit the companies present in their portfolios an average of 19 times per year. With a more pragmatic approach, Kaplan and Stromberg's (2001) examination reveals that venture capitalists expect to provide to a startup help in the process of the business plan development, assistance with acquisitions, the design of employees compensation plans, and, through their network, facilitate strategic partnerships in order to create synergies with the companies in their portfolios. Bearing this in mind, it is easier to identify what venture capitalists add to a startup besides money: this type of financing provides

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[6] See section 2.2.3 Importance and impact

[7] In the literature, institutional venture capital is the name differentiating it from angel financing. From now on I will refer to it as venture capital.

[8] Business angels are often designated as informal venture capital in the literature. I will address it as business angels from now on.

[9] See section 2.2.1 Angel capital market

[10] Citation from Wikipedia - http://en.wikipedia.org/wiki/Venture_capital

mentoring, strategic advice, assistance in the recruitment of top managers, and signaling effect to the market (Hellman and Puri, 2002). This confirmation of the role that venture capitalists develop when supporting recently established firms was achieved in this research, backed by a survey with a sample of 173 start-ups located in Silicon Valley. It is important to understand the signaling effect as it may sometimes become more important for entrepreneurs than the valuation of the company itself. According to Hsu (2002), entrepreneurs are willing to lower the valuation of the company when negotiating in order to get funded by a prominent venture capitalist. This research also states that due to this effect, entrepreneurs can leverage their chance of raising additional funds when venture capitalists certify the company.

All of this previous research is consistent with the thesis that venture capitalists provide much more than financial capital. All of these inputs are not costless for the entrepreneurs, as venture capitalists demand high IRR's for their investments when compared to other sources of private equity, which makes venture capital an expensive source of financing (Sahlman, 1990).

2.1.2.2. Corporate Venture Capital

Corporate venture capital, which is venture capital administrated by regular enterprises, is the investment of corporate funds directly in external start-up companies, both for financial and strategic reasons (Brettel, 2010). In his study, Dennis (2004) notes that corporations participate and invest in entrepreneurial firms in three different ways: "direct investments via corporate venture funds, acquisitions of or strategic alliances with start-up companies or even indirect investments via independent venture funds"[11]. According to this research, the latter two are the source of which the majority of funding comes from. It is important to understand that when it comes to the corporate venture capital market, it becomes particularly difficult to obtain statistics and information. Hellman (1998) estimated this market to be less than 5% of all venture capital financing, but this number may be highly volatile and even underestimated. The data on this estimate only takes into account the organized corporate venture capital programs, but there is a fair amount of entrepreneurial firms backed by informal corporate investments. Also, corporations often invest indirectly through independent venture capital funds, which is not taken into account in this early study. At its peak during the dot-com bubble, in 2000, corporate venture capital funds invested more than $16 billon, corresponding to 15% of all venture capital investments that year. This was achieved through almost 400 corporate venture capital programs (Venture Economics, 2001). Gompers and Lerner (2000) found

[11] Dennis, 2004, "Entrepreneurial Finance: An overview of the issues and evidence", Journal of Corporate Finance 10, pp. 305

that the success of corporate venture capital programs could be measured using a proxy, which is the probability of going public. This probability, assumed as a measure of success, is linked with the underlying degree of strategic overlap between the corporate parent and the start-up enterprise. Consistent with this view, potential conflicts may arise between the corporation and the start-up[12]. These potential conflicts explain the preference of independent venture capital funding over corporate venture capital.

2.1.2.3. Business Angels

The term "business angel" had its origins in the 1970's and comes from Broadway, "where it was used to describe wealthy individuals who provided money for theatrical productions"[13]. Some common definitions of angel investors are highlighted here for comparison:

> "*A high net worth individual, acting alone or in a formal or informal syndicate, who invests his or her own money directly in an unquoted business in which there is no family connection and who, after making the investment, generally takes an active involvement in the business, for example, as an advisor or member of the board of directors.*" (Mason and Harrison, 2008)

> "*An angel is a high net worth individual who invests directly into promising entrepreneurial businesses in return for stock in the companies. Many are entrepreneurs themselves, as well as corporate leaders and business professionals.*" (ACA website)

> "*A business angel is an individual investor (qualified as defined by some national regulations) that invests directly (or through their personal holding) their own money predominantly in seed or start-up companies with no family relationships. Business angels make their own (final) investment decisions and are financially independent, i.e. a possible total loss of their business angel investments will not significantly change the economic situation of their assets. BAs invest with a medium- to long-term set timeframe and are ready to provide, on top of their individual investment,*

[12] For further detail on the subject see, for example, Hellman, T. 1998: A theory of corporate venture investing, Stanford University

[13] Citation in Wikipedia The Free Encyclopedia

follow-up strategic support to entrepreneurs from investment to exit." (EBAN website)

"*A wealthy individual who invests in entrepreneurial firms. Although angels perform many of the same functions as venture capitalists, they invest their own capital rather than that of institutional or other individual investors*." (Lerner and Kortum, 2000)

Compared to the large volume of academic research on venture capital, little work has been done on angel investing. As presented by Fenn *et al.* (1997), business angels typically invest seed capital, which has been previously defined as financing provided to research, assess, and develop an initial concept before a business has reached start-up phase. Linde and Prasad (1999) found that the average angel had a total of $335,000 invested in 4 different companies. Also, they stated that within this group of investors, high heterogeneity levels are present including background, age, and investment preferences. Data on angel investments becomes difficult to obtain due to the fact that, unlike the venture capital market, the angel market is characterized by little or no institutional infrastructure.

2.1.2.4. Other sources

Although external equity financing has several advantages over debt, it may be costly compared to internal equity financing (Carpenter and Petersen, 2002). Notwithstanding the three sources of outside equity financing referred to above, an important and increasingly relevant source should be mentioned - internal equity financing, or bootstrapping. In previous research, bootstrapping has different definitions, but a general consensus defines it as "a gathering of methods and practices that minimize the dependency of a firm on both debt and external equity financing" (Winborg and Landstrom, 2001). Bootstrapping is a method that reduces firm reliance on outside financing. The knowledge on bootstrapping and degree of research has been increasing (Ebben and Johnson, 2005). According to Harrison and Mason (1997), most of the new and small companies use some type of bootstrapping both for initial financing of the firm's operation and to leverage its growth.

In spite of being an important source of financing for mature firms, banks assume a small role when addressing the seed and early stage financing of entrepreneurial firms (Storey, 1994). Empirical evidence supports this statement, validating the hypothesis that younger, smaller firms are less likely to receive bank financing, both in debt or equity forms (Levenson and Willard, 2000). Although banks are not suitable for funding entrepreneurial firms and start-ups, commercial bank loans provide 19% of all financing for small businesses[14]. According to Gompers and Lerner (1999), projects backed by the alternative sources of external equity financing, which have been previously exposed, exhibit high failure risk and are characterized by great uncertainty, due to their risky nature and early stage. This study provides an overview of the reasons why traditional sources of financing, such as banks, are not appropriate for such projects. Several reasons back the hypothesis that banks are inappropriate to finance entrepreneurial firms; the most relevant is the fact that banks "not only demand a risk premium in the form of higher interests"[15], but even when granted, banks restrict the firm's behavior by including covenants in the contract, affecting its ability to seek funding elsewhere as it affects the firm's ability to grow the business, and assuming an even higher control degree in the event the firm performs poorly (Winton and Yerramilli, 2008).

All of these different sources of early stage financing bring different benefits and entail different costs for the entrepreneurial firms. As exposed, early stage investment is highly segmented in the U.S.A., with different kinds of investors assuming different approaches and providing different support to start-ups[16]. Evidence shows that the identity of equity investors matters, especially in entrepreneurial situations.

2.2. Business Angels

As defined earlier, angel investors are affluent individuals who provide capital for a business start-up, investing their own money. Angel financing, which has become one of the most relevant methods to finance new ventures[17], is also one of the least studied methods, especially in Portugal.

Dennis (2004) defends that angel investors provide capital at a much early stage and generally provide post-investment support services, like venture capitalists, whose role has been addressed previously.

According to EBAN, business angels have a role in[18]:

- Filling the equity gap in the start-up phase
- Investing in companies at a stage where VCs are no longer active

[14] U.S. National Survey of Small Business Finances 19% from commercial bank loans; 5% from finance company loans; 2% from venture capital; The main source is principal owner's equity (31%) and trade credit (16%)

[15] Egeln *et al.*, 1997, "Firm Foundations and the role of financing constraints" pp. 138

[16] See exhibit 2 "Business angels versus venture capitalists"

[17] See section 2.2.1 - Angel capital market

[18] Citation from EBAN, www.eban.org

- Being an integral part of the chain of integrated finance tools
- Contributing to the culture of entrepreneurship in the region
- Agglomerating the existing investment capital in a region
- Increasing the chance of the firm to secure further financing (Haines, Riding, 2007)

Business angels provide the riskiest capital, as they fund companies in the "valley of death"[19]. This designation is due to its low survival rate.

2.2.1. Angel capital market

Historically, the angel capital market – where individuals provide risk capital directly to small, entrepreneurial and start-up firms – has operated in almost total obscurity. As a worldwide pioneer, in his early work, Wetzel (1987) provided one of the first insights related to the size, scope and types of firms that raise angel capital and the types of investors who provide it. Since then, there has been a lot of research on, this subject, and a lot more has been revealed. In Portugal, however, it is safe to say that policymakers and academics know little about the characteristics of this market, except that it is likely to be a large and important market for start-ups and entrepreneurial firms to raise funds.

The very nature of this market of informal venture capital investing, is the reason why it is fairly undisclosed when compared to the formal venture capital market. The angel market involves transactions in private equity securities not subject to the rigorous disclosure for public equities, and there is almost no institutional infrastructure supporting the market (Wetzel, 1983). Furthermore, the heterogeneity of the angel market makes it very hard to come up with general statements about how the market operates.

In order to deeply understand where the angel market operates, it becomes important to place it in the finance hierarchy. As it is known today, the angel capital market is different from both the venture capital and the private equity market, although some similarities may occur. The way angels structure the deals and the types of the firms funded tend to overlap (Prowse, 1998). In order to clearly understand this market, both a historical as well as a cyclical analysis corresponding to the current cycle in this capital market is presented.

In the past, attempts to estimate the angel market in order to understand it deeply have been made. Freear et al. (1996) estimated that around 250,000 angels invested between $10 billion and $20 billion

[19] See Exhibit 1 "Finance hierarchy"

in around 30,000 firms annually. At the time, the institutional venture capital market totaled $6,6 billion of commitments (1995). This estimate would make the angel capital market several times larger than the venture capital market, at the time. In line with this statistic is the fact that angels provide one of the largest amounts of capital among early stage funders, funding more than ten times of ventures as venture capitalists (Freear, 1992).

In 2011 these numbers appear to have changed slightly, as estimates of the angel capital market indicate it to be $100 billion in the U.S., and the venture capital market to score $48,3 billion[20]. The angel market, following a contraction in investment dollars in 2008 and 2009, exhibited an upward trend that began in 2010 both in number of investments and invested dollars. The Center for Venture Research at the University of New Hampshire assesses that total investments in 2011 were $22,5 billion, an increase of 12,1% over 2010. A total of 66,230 entrepreneurial ventures received angel funding in 2011. The number of active investors in 2011 was 318,480, a substantial growth of 20% from 2010.

Regarding sector analysis, the software industry regained the largest percentage with 23% after a 30% market investment in health care in 2010, recording 23% in the past year. Over the past two years, angels have also made strong investments in the industrial and energy sectors. In 2011, those industries made up to 13% of the investments. Biotech continues to have a strong presence (13%), while media investments have fluctuated (5%). After a two-year decline in seed and start-up investment, angel funding in these early stages is increasing. In 2011, 42% of all angel investment was for seed and start-up capital[21].

A comparison between the United States and European angel market reveals the differences in terms of networks, number of angels, average investment round and total estimate invested annually[22].

It should be kept in mind however, that despite the characteristics mentioned above, business angels remain a heterogeneous group.

2.2.2. Angel investor profile and motivations

As stated previously, Prowse (1998) defined an angel as a provider of risk capital to small, private firms. The investor is a wealthy individual but not an intermediary such as a small business investment company or even a private equity limited partnership. This group of investors does not include the

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[20] Venture Economics, 2012, www.ventureeconomics.com

[21] Centre for Venture Research, 2011, "The angel investor market" http://wsbe.unh.edu/cvr

[22] See exhibit 3 "Angel capital Market: Europe versus U.S.A."

principal entrepreneur or even his immediate family. In the light of traditional finance theory, angels often fill the gap corresponding to the second round of financing, after the entrepreneur has exhausted all of his family's and friends' money, but prior to approaching formal venture capital partnerships. Although this class of investors tends to fulfill the same funding gap in a company lifecycle, there are several different characteristics and profiles among them, as they appear to be extremely diverse. This is explained partly by angels' diverse backgrounds.

The various surveys conducted by the European Business Angel Association on angel profiles have yielded the following results[23]:

- A majority of males
- Aged between 35 and 65
- Successful experience as an entrepreneur or a manager
- Available at least on day a week to advise trustworthy entrepreneurs
- Prepared to invest 25,000 € - 250,000 € or the equivalent of 15% of their own funds in a single deal
- Contribute their network of personal contacts in business and company finance circles

Although this has become the stereotype of a business angel, angels appear to be extremely diverse and tend to have different profiles[24]. Mulcahy (2005), classifies angels in the following categories[25]:

- The "technology guru": angels with industry expertise, attracted by your technology and who want to work with you to succeed;
- The "teacher" who is generally a formal entrepreneur and acts as a mentor;
- The "status seeker";
- The "investor" making strictly rational decisions based on assessment of financial returns;
- The "portfolio manager" with no entrepreneurial experience but wealthy, who believe that angel investing is a good financial activity;
- The "virgin angel" who has never made an investment and therefore are unpredictable.

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[23] Citation from EBAN, 2009, www.eban.org

[24] See exhibit 4 "Business angels' profiles"

[25] Citation from Mulcahy (2005) "Venturing Forward: A practical guide to raising equity in Ireland", Oak Tree Press, p.95

Angels are extremely diverse in several categories, one of them being financial sophistication. More sophisticated angels tend to insist on investment contracts that are closer to those present in the venture capital market, which contain tools and mechanisms to fight moral hazard problems and protect the investors in case of bad performance. According to Prowse (2004), financially unsophisticated angels omit even the basic protections.

Having entrepreneurial experience since they have previously founded companies themselves, most angels prefer to focus on seed or startup stage firms, rather than already established businesses, although some wealthier angels will also participate along with other partnership or venture capital investors in middle market buyouts.

A research conducted by EBAN in 2008[26] reveled the reasons why angels invest:

1. Financial return
2. Personal satisfaction
3. Diversification of portfolio
4. Economic development
5. Self-employment

A survey conducted by France Angels (2003) highlighted the main motivations for angels in France. The top three motivations were to create value (34,5%); to have adventure and fun along the process (27%); help to raise a company (12,7%). Other motivations would be to participate in the local economic development (10,5%) and return on investment (7,8%).

This data, despite being a result of a France-based sample of business angels is extremely relevant to understand what motivates these individuals to invest in such a risky and early stage.

2.2.3. Importance and Impact

In their early work, Freear *et al*. (1994), provide interesting statistics about U.S. business angels. Historically, U.S. business angels funded more than ten times the number of firms as venture capital did and have provided the largest amount of capital in more rounds of financing. Due to the size of venture capital funds, which have been becoming larger, venture capitalists have been investing less and less in the seed stages of the process and, 400 000 business angels scattered in the U.S. fulfill this financing gap (Lipper and Sommer 2002). Morrisete (2007) advances that angel investments account for

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[26] See EBAN Toolkit 2009, http://www.eban.org/resource-center/publications/eban-publications

around 70% of capital backing new business ventures.

When addressing the impact of early stage investing in the U.S., it is essential to understand how it contributes to its economy. Entrepreneurial ventures have high and positive impact in the American economy, assuming the role of "primary job-creating engine" and boosting 75% of new jobs in the U.S. (Ojala, 2009).

In 2010, 11.9 million of jobs in the U.S. were venture-backed jobs, representing 11% of U.S. private sector employment. Also, $3.1 trillion in venture-backed revenues in 2010 represents 10% of total U.S. sales. In addition, during the 2008-2010 period, venture-backed companies' outperformed total U.S. economy in terms of job and wealth creation. Data shows that angel investment contributes to job growth, with the creation of 165,600 new jobs in 2011, or 2,5 jobs per angel investment[27].

Lipper and Sommer (2002) go even further by stating that early business angel investment, which comprehends both financial and intellectual capital, leads to wealth creation, innovation, and entrepreneurial growth, escalating regional economic development and leading to future venture capital investment.

Evidence clearly shows the relevance and impact business angels and angel-backed ventures assume in the U.S. economy.

2.3. Angel Investment Process

The vast majority of the work done previously about business angels has taken a disaggregated approach, and instead of focusing in the angel investment process as a whole, focused on particular stages of the process. For example, Clark (2008) focused in the pre-investment phase in order to realize how the entrepreneurs' oral skills impact angels' investment decisions. Mason and Harrison (1996), whose focus was the decision making step of the process, analyzed the evaluation criteria of a group of business angels, concluding they pay special attention to the skills of the entrepreneurs and his track record. Related to this, Payne et al. (1992) suggest by saying that, in the decision making process, angels are faced with choices characterized by uncertainty and complexity. Uncertainty represents the feeling the angel experiences when addressing the entrepreneur's skills, having second thoughts or even doubts if he is capable to implement the business. Complexity may arise based on the fact that the angel has more than one investment opportunity or participates in an angel syndicate where other angels have different points-of-view of the opportunity. Evidence suggests that, post-investment, angels

[27] Centre for Venture Research, 2011, "The angel investor market" http://wsbe.unh.edu/cvr

monitor their investments and have a hands-on approach on the business, taking advantage of their own skills and networks to add value to the firm and thus to the investment itself (Madill et al, 2005 and Freear et al, 1995). Stuart et al. (2006) advance that the experience of the angel during the process, successful or not, affects the opportunities he seeks subsequently. Although regarding exit strategies of the angels, evidence and research is limited, Paul et al. (2003) suggest that there is no preference of the angels in the three possible scenarios: management buy-out, trade sale (financial or strategic), or IPO.

As exposed, the angel investment process as a whole, contrarily to what happens in the several steps of the process separately, has not been the subject of research making it limited in detail and scope. Attempts to examine the whole process include Van Osnabrugge and Robinson (2000), Haines *et al.* (2003), Stuart et al. (2006) and Amatucci and Sohl (2004). Amatucci and Sohl (2004) divided the process in three major phases: pre-investment, negotiation and contract, and post investment. Osnabrugge and Robinson (2000) suggest an eight-stage process that, due to the overlap between venture capital and angel investing activities, characterizes both venture capital and the angel investment process. Haines (2003) also indicates an eight-stage model, based on interviews with Canada-based business angels, but this is only one representative of the angel investment process. Finally, Stuart *et al.* (2006) suggest an angel investment process that is represented in five stages: familiarization, screening, bargaining, managing, and harvesting[28].

Although this 5-steps method found the angel investment process to be sequential, it asserts that to call it orderly would be "overly simplistic." Many deals may not progress due to numerous factors. A defining characteristic of the process is iteration, where the main iterative steps take form in the first three stages of the process. The first three phases of the process, familiarization, screening, and bargaining, are highly iterative phases; angels continuously add information necessary to his decision-making. This research also presents external factors of relevant impact on the process, for example, angel or entrepreneur illness or different time scales. After these initial steps, analysis and deliberation take place, usually involving friends and advisors. This approach also states that an angel has the opportunity to end the process at any time before the 4th phase or during the iterative phase.

The model ends up demonstrating that a backward step in the iterative phase is a common practice. Business angels tend to have less information than necessary in order to value the company, which may lead to a backward step when the angel requires more information in order to proceed with the deal. Two other factors were taken into account due to their impact on the process: angel's investment objectives and angel's support such as networks, co-investors, and friends. For example, a change in

[28] See exhibit 5 "Angel Investment process"

the time the angel wants/can devote to this activity (part-time / full-time) can re-prioritize his criteria and affect the assessment of an investment opportunity.

Despite this early research, a more consensual and advanced model was advanced by OECD (2011) and assumed here as the typical angel investment process.

2.3.1. Investment Process Definition

In a more recent research, OECD provided a framework of a typical angel investment process[29].

As stated, this is the typical process and does not necessarily represent the American or Portuguese reality. The necessary knowledge about the U.S. investment process was extracted, in order to survey the Portuguese angel universe and to be able to highlight the differences in the process.

2.3.2. Sourcing and Screening

Sourcing and identifying entrepreneurial projects of merit is the first step in the process of making early stage investments. Sourcing and evaluating are the two major components in terms of time usage in the angel investment process[30]. Most of the experienced and well-known angels in the U.S. experience high levels of deal-flow (more than 1000 annually). Knowing this, prior to sourcing, angels consider the key elements of a potential investment and make decisions related to the kind of deals they want to target, establishing a pre-screening criteria[31]. This may include elements such as company valuation, industry, investment size, team, and market size. When planning a source strategy, angels in the U.S. think about quantity and quality. Since, as stated previously, angels are extremely diverse each one sets the trade-off between quantity and quality of deals they can source. To increase the quality, most angels in the U.S. source most of their deals only through referrals[32].

Prowse (1998) states that the main criteria used by business angels in the U.S. to screen investments are whether the entrepreneur is someone they previously knew, worked with, or if he is trusted by someone the angel knows and trusts. This is also the reason why most of the projects are denied: a lack of knowledge or comfort about the entrepreneur. This is an important element but not the only one. In

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[29] See exhibit 6 – "OECD typical angel investment process"

[30] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

[31] Angel Resource Institute, http://www.angelresourceinstitute.org

[32] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

order to even consider a personal meeting, the angel will first require a business plan to fully understand the basics of the business, although this has a secondary status. Investments may also be rejected at this stage due to issues in the business plan such as limited growth potential of scalability of the project or unrealistic pricing of equity.

These two steps conclude the pre-investment phase, preceding the decision making phase. Some of the strategies employed by the most prominent and successful angels in the U.S. in the pre-investment phase include[33]: preparation activities such as writing a page establishing what they are looking for, sourcing and screening more easily, networking activities such as participating in angel groups, sharing quality deals with other angels and rewarding those who sent referrals and joining an angel/entrepreneur matchmaker, and finally visible activities such as giving speeches, publishing articles, and co-investing with prominent angels where they can get both visibility and experience.

2.3.3. Selecting, Evaluating and Validating

Once the project satisfies the minimum requirements, it is time for the decision making part of the process. The assessment of the real investment opportunity comprehends three steps of the process: selecting projects according the angel selection criteria, evaluating and validating the investment. In order to understand how it functions in the U.S., one needs to understand the selection criteria of business angels in the U.S., how do they perform due diligence, how detailed it is, and finally how do they value the company.

When it comes to the decision-making, the first step is to select the investments. To do so, an underlying investment criteria is put into practice. Explicit in previous research is the fact that the entrepreneur is the most important factor in order to attract angel investment (Van Osnabrugge & Robinson, 2000). MacMillan *et al.*, (1987) go even further by saying that the entrepreneur and the management team are the two key elements in order to raise investment. To illustrate this, Coveney (1996) shows that lack of trust in the entrepreneur or in his skills and ability to raise the business reduces investment by business angels. Although the entrepreneur is often referred to in existing research as the key element of the angel criteria, it is important to dig deeper to understand what qualities angels look for in an entrepreneur. Sudek (2007) provides one of the most relevant studies addressing the angel investor criteria. This provides a complete insight into the angel investment criteria in the U.S. through both a qualitative and a quantitative approach, backed with interviews and a

[33] Amis and Stevenson, 2002, “Winning angels: the 7 fundamentals of early stage investing”

survey consisting of 173 angels. The results of this research show that the angel investment criteria are as follows[34]:

1. Trustworthiness / honesty of the entrepreneur(s)
2. Management team
3. Enthusiasm / commitment of the entrepreneur(s)
4. Potential exit routes (potential liquidity)
5. Revenue potential

This outcome corresponds with the interviews, where passion and trustworthiness of the entrepreneur(s), management team, and exit route are the top three criteria used by U.S. business angels. As current literature fails to detail which attributes angels look for, this study also found that the most important are[35] :

1. Passion of the team
2. Perceived sense of survivability of the team (how persistence they will be)
3. Openness of the team to mentoring (coachability)

Concerning due diligence, angels tend to perform less professional due diligence than venture capitalists, as business angels invest more opportunistically, rely more on instincts and "gut feeling"[36]. On the other hand, more professional venture capital providers have their own personal staff in charge of due diligence or have the financial capability to hire an external firm to do that[37]. Due to the fact that angels invest their own capital, they are less accountable for it than investment managers in venture capital funds, who answer to the shareholders of the fund, leading to a deficiency of scrupulousness and increasing the risk of poor investment decisions.

According to existing literature, there are four main valuation methods: discounted cash flow or analytic method, the VC method, the pre-VC method, the similar-company transaction method, and the "quick and easy" approach (Damodaran, 2003). According to Suster (2009) business angels in the U.S. mainly follow the pre-VC method where the deal is not priced or the "quick and easy" approach.

As said before, uncertainty and unpredictability (or even inexistent) revenues surround a startup.

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[34] See exhibit 7 "U.S. angel selection criteria"

[35] See exhibit 8 "U.S. management team selection criteria"

[36] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

[37] Centre for Venture Research, 2011, http://wsbe.unh.edu/cvr

Therefore because the basis of analytical methods such as discounted cash flow and venture capital methods are revenues and expected cash flow, which cannot be forecasted at a startup level due to all the uncertainty. These methods have no use at this early time, which is why angels in the U.S. do not rely on them, as angels don't use an analytical or numerical approach, but use instead a model that comprehends knowledge of the environment/industry, intuition, and experience[38]. The older the business is, the more detailed the analysis. On the other hand, the closer a business is to being a startup, the less reliable the numbers are when valuing it.

Due to subjective and uncertain issues like timing and people (founders), when assessing the value of a startup, most of the angel investors follow a "quick and easy" approach (Suster, 2009). This "quick and easy"[39] approach has several methods developed by angels over time, such as setting a limit where a company that is valued over this limit is not considered for investment. This limit is due to the fact that with high pre-money valuations, and with the dilution that angels are usually subjected to later, it would not pay off otherwise the desired returns of around 30% IRR required by most angels. Another method is the investment range standard, where upper and lower limits of a company valuation is set, which is used by most traditional angel investors, as they have found that this is an acceptable range of investment in order to get reasonable returns. This is a simple approach, followed by many angels[40].

There's also the Pre-VC method, which is used by angels in order to avoid any value negotiation. In this method, angels invest with a discount of 10% to 50% (convertible debt) and when the VC round is due, the valuation of the company is approached. The rationale behind this method, from the angels' perspective is to avoid negotiation and make the decision to invest easier[41].

The VC method to value a company is determined by the ownership percentage required in order to get the desired return, assuming some certain future value of the company – that is achieved usually by applying market / transaction / revenue multiples or IPO valuations (Damodaran, 2001).

A single angel's typical investment can range from around $50,000 to $1 million. In larger deals, an investment syndicate, where angels co-invest, is common (Prowse, 1998).

38 EVCA Research, 2010, http://www.evca.eu/knowledgecenter

39 Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

40 Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

41 Kauffman Foundation, http://www.kauffman.org/

2.3.4. Negotiating and Structuring

Once the investment is approved according to the evaluation criteria, validated by due diligence, and given a price according to the company's valuation, the angel investor will negotiate and structure the deal with the entrepreneur.

According to previous research, negotiation and structure will comprehend mainly two topics respectively: company valuation and deal terms. It is in these steps where heterogeneity among angels impacts the most (Casamatta, 2003). The most sophisticated angels tend not to negotiate themselves, but tend to structure the deals in a more complex way. Meanwhile, less sophisticated angels negotiate in person and do not structure the deal with complex instruments[42].

Less sophisticated investors in the U.S. consider initial ownership to be the most important negotiation subject, based on the fact that it is their belief this is what will impact the most on the future value, negotiating hard to increase it. In their quest to align interests, angels in the U.S. end up losing a lot of time negotiating valuation and equity percentage. Unlike this, most sophisticated investors seem not to negotiate in person leaving the matter to one representative such as a lawyer, knowing this is a sensitive issue for the entrepreneur, potentially misaligning incentives or raising unnecessary issues. Instead, more sophisticated angels focus on creating the right structure for the deal, and start planning this from the negotiation step[43].

According to Prowse (1998), one of the most relevant characteristics of the angel market is that investors typically do not take large equity stakes in firms. In terms of control, most investors always prefer to give the entrepreneur control of the venture, thus never requesting a stake higher that 50% of the venture[44].

This argument is in line with the one supporting the structuring step. The main incentive mechanism used by angels is managerial ownership of equity. Angels, in general, like to see entrepreneurs with large blocks of stock in the company, and appear happiest when the entrepreneur's financial survival depends on company's success. The most sophisticated angels tend to structure the deal with complex mechanisms such as protection agreements, performance incentives, control mechanisms such as royalty dividend, board, and liquidation rights, and finally a consent right. Contrarily, less sophisticated angels do not structure formal control mechanisms; instead they rely on trust and honesty of the entrepreneur (Wong, 2002).

[42] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

[43] Coveney, Moore, 1998, "Business Angels: Securing start-up finance"

[44] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

According to this, less sophisticated angels do not seem to structure protection in the form of clauses in their contracts. Unlike venture capitalists, these kind of business angels do not include clauses for anti-dilution in their contracts, Also, in terms of securities, angels typically structure their deals with common equity, which does not give them any kind of preference or protection in the event of bankruptcy or liquidation (Casamatta, 2003).

The structure used by angels usually comprehends to limit entrepreneur's salary and the exit time, ensuring it does not occur before the angel ensures his/her return[45]. Other than this, angels seem to be straightforward, keeping it simple when possible, getting to know the entrepreneur and being able to trust him, mitigating the risk and aligning the interests.

2.3.5. Supporting

Once the decision-making stage is over and there is an agreement, the post-investment stage follows, which consists of both the support and the harvesting steps. Angels vary in their degree of commitment, assuming an active (proactive or reactive) or a passive role in each investment.

Active investors are those who monitor the investment and often have a board sit, acting as advisors on several matters related to the firm[46]. These investors tend to share common characteristics. The most prominent characteristic is that they have entrepreneurial experience being ex-entrepreneurs or industry experts (Wetzel, 1987). Thus they have experience founding or managing entrepreneurial firms. Data that proves this fact is visible in the U.S.; 87% of business angels have experience in a firm's operations (Freear and Wetzel, 1991). Research also shows that 75% to 83% of angels have experience launching a business venture (Van Osnabrugge & Robinson, 2000). Furthermore they have high net worth or high income, typically independent of their angel investing activity. Assuming an active role, these angels provide more than money, they provide *smart money*[47], which is characterized by the additional inputs they bring to the firm. These inputs often include helping the company arranging additional financing; hiring managers and recruiting experienced board members. They may also help solve major operational problems, evaluate capital expenditures, and develop the company's long-term strategy, acting both as a coach of the company and as a mentor of the entrepreneur.

On the other hand, "passive" angels provide money and are solely tied to the firm in one sense. They

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45 Coveney, Moore, 1998, "Business Angels: Securing start-up finance"

46 Citation from Investopedia - http://www.investopedia.com/

47 Extracted from Smart Business Capital, http://www.smartbusinesscapital.com/

are not involved with management of the firm and tend not to monitor the firm closely. This type of investor rarely invests alone; he usually is part of an investment syndicate, which in its turn is led by one or more active investors. (Wetzel, 1983)

With the development of the angel activity in the U.S., there are several approaches followed by angels when supporting their investments. There are five participation roles in the U.S. leading to different impacts on the firm[48]:

- Silent investor – Pure financial investor who will not take an active role in the company. Usually he requires access to company accounts in order to control it and has a low impact.
- Reserve force – Reactive investor. He is the one who is willing and capable to intervene upon entrepreneur request. His impact depends on relevant skills and contacts.
- Team member (full or part time) – Works for company on a particular stage, project, or functional area. He has a high impact (positive or negative if micro-managing the entrepreneur).
- Coach – He is the investor with the highest impact. He does not necessarily control the company. Instead he meets the entrepreneur regularly, providing support, advice, and any kind of assistance requested.
- Controlling investor – An investor who becomes the entrepreneur by taking control and managing the company (outright or conventions). He has a high impact.

According to *The Winning Angels Study © 2000*, most angel investors in the U.S. tend to "redirect the entrepreneur in one of many directions, asking, advising, or demanding changes to the operating plan." They also often provide active support at the strategic level.

2.3.6. Harvesting

The final step of the angel investment process is harvesting, which is, as defined by EBAN[49]:

> *"Exit from the business, either because it fails or by selling their shares."*
>
> *"The ways in which business angels sell their stake in an investee drives the business. Possible exit routes include management buyouts, sale of stock to another business angel or a formal venture capital firm and – in few cases – listing on the stock market."*

[48] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

[49] EBAN Toolkit 2009, www.eban.org

There are different ways of exiting an investment[50]. These may include a trade sale, financial or strategic, where a company is sold to another company such a venture capital fund or a market player respectively, a management buy-out, where the founding team re-purchases the equity of the firm, an IPO, where the company becomes publicly listed by dissolving capital, and finally total loss, where the firm becomes insolvent.

A harvest event should be planned from the beginning, from the moment the investment is made. This may seem paradoxical, since this is the last step of the process. Mason (1998) states that business angels develop exit strategies at an early stage by developing relationships with possible trade buyers. Although some angel investors do "nothing but keep their fingers crossed," when it comes to exiting an investment, the most successful investors plan it from the beginning. Evidence shows that these investors align interests and structure the deal with an exit route in mind. Angels develop relationships with venture capitalists that they have in their close network.

> *"My first though as an early stage investor is about harvesting. Not in the sense that I determine in advance how to get liquid, but rather I try to figure how to help make the company in which I am planning to invest attractive enough so that someone in the near future will offer more for my position than I paid."* Frans Kok (angel investor) about one successful harvest event

According to Centre for Venture Research[51], in 2011 M&A accounted for 24% of the harvesting events during that year. More than 50% of exits were at a profit, and annual returns for these exits (M&A and IPO's) range from 18% to 28%.

Angels think about harvesting with a long-term perspective[52]. Returns are obtained in the form of capital gains after a period where the investment holds little or no liquidity. Wetzel (1983) was able to test the "patience level" of business angels, concerning the expected holding periods. The results indicated that angels expect to have a company in their portfolios for an average of five to seven years.

[50] EBAN Toolkit 2009, www.eban.org

[51] Centre for Venture Research, 2011, http://wsbe.unh.edu/cvr

[52] Amis and Stevenson, 2002, "Winning angels: the 7 fundamentals of early stage investing"

3. METHODOLOGY

Early research concerning angel activity in the U.S. used the venture capital investment process as proxy in order to understand the angel investment process. Similarly this thesis uses the angel investment process in the U.S. as a proxy in order to better understand the Portuguese angel investment process.

In order to better understand the angel investment process in Portugal, this thesis used an empirical approach. This empirical approach consists of a survey designed based on the American model here described.

After an intensive analysis of previous research and literature, the proposed American angel investment process is composed of 3 stages and 9 steps. These are the pre-investment, decision-making and post investment stages. The first one consists of sourcing and screening steps. The decision-making stage entails the selecting, evaluating, validating, negotiating and structuring steps. Finally, the post-investment stage comprises the supporting and harvesting steps.

The model is as follows. During the first stage, when the sourcing step starts, angels in the U.S. in order to increase projects' quality, source only through referrals. Once they source investment opportunities, the screening step is due. Angels will select those projects that fit their pre-screening criteria. This pre-screening is usually established based in valuation, industry, investment size, team and market size. When the opportunities are chosen, the main factor in order to progress to the next stage is whether the entrepreneur is someone they are comfortable with or if someone from their own network knows and likes the entrepreneur.

The second stage, the decision-making, starts when angels apply their selection criteria. The selection's top-3 criteria[53] consist of entrepreneur and entrepreneur-related topics. This indicates that what angels in the U.S. value the most, above opportunity, market or other topics, is the entrepreneur and the team backing the idea. During the evaluating step, angels may follow two different steps, being they to value or not to value the company. If the company is valued, angels follow the "quick and easy" approach, where they usually set an investment range, where only companies valued within this range will be considered. If angels chose not to value the company they will follow the pre-VC method, which consists in investing with convertible debt with a discount factor, being able to wait for a venture capitalist to invest in a later round, evaluating the company at that time. Angels invest opportunistically and, instead of performing due diligence, tend to trust their "gut feeling" and instincts – and this is how

[53] See exhibit 7   U.S. Angel selection criteria

the validating step is performed. Angels' approach varies when addressing the negotiating step. Sophisticated angels will not negotiate themselves but leave this step to a lawyer, usually. These angels will focus on deal terms and contract clauses. Less sophisticated angels will negotiate themselves and will focus on valuation and equity percentage. The last step from this stage is structuring. Angels will structure the deals based on protection agreements, performance incentives, control mechanisms and management compensation. In general, angels' main incentive and angels' main protection at the same time, from the entrepreneur and management team's potential bad decisions, is to align interests, leaving them with large equity stakes.

The post-investment stage is the last in the investment process. During the supporting step, most angels are active, but standing on the sidelines. This means they will help the entrepreneur, meeting him regularly, providing support and advice, as well as any kind of assistance requested, acting as a coach[54], the role with the highest impact. Harvesting is the last step of the process. American' angels think about harvesting with a long-term perspective having on average, an expected holding period ranging from 5 to 7 years.

The first step in designing the survey was to consider the exposed American angel investment process. This model is based on previously reviewed literature and research about the several stages and steps of the process. Using this model as the basis, the survey was then created. Since the survey questions are based on the American model, the answers of Portuguese business angels would thus immediately indicate the differences between the two models. The survey is available in the appendix section exhibit 10 of this dissertation.

[54] See definition on Section 2.3.5 -Supporting

4. ANALYSIS

4.1. Survey results

The survey this thesis performed provides interesting insights into the three stages of the investment process: pre-investment, decision-making, and post-investment stages. These results will be exposed separately[55].

4.1.1. Pre-investment stage

As explained previously, this stage includes two steps: sourcing and screening. According to results, the sourcing strategy followed by Portuguese business angels is to rely mostly on their own networks, including family, colleagues, clients and friends, with 77% of the surveyed angels following this sourcing strategy. Also, business angels' platforms assume an important role during sourcing (73%). On one hand, the first answer indicates that Portuguese business angels value referrals, but on the other hand, the latter result indicate they don't value them, as opportunities from angel platforms are anonymous.

The second step of this phase is the screening. A relevant number of angels in Portugal don't have a pre-screening strategy (41%). This may lead to a more inefficient investment process, spending time with projects that could be excluded *a priori*. For those who do have a pre-screening strategy, the stage of the company (45%) and required funding (41%) are the two main criteria. Once the screening is carried out, what impacts the business angels' decision the most is the idea or potential opportunity, which scores 4,46 of relevance on a scale from 1 to 5. Following this, the existence and composition of the team (3,86), business plan quality and financial projections (3,34), and finally the fact that the entrepreneur is already known (3,33) are the main factors that will make the angels proceed with a specific investment opportunity, usually by convoking a pitch session.

4.1.2. Decision-making stage

During the decision-making stage, there are several steps being they selecting; evaluating and validating; negotiating and structuring. The three most important criteria for Portuguese are angel growth potential of the market scoring 4,45 on a scale of relevance from 1 to 5, revenue potential (4,31)

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[55] See exhibit 11a / 11b "Survey results Portuguese and English"

and finally enthusiasm and commitment level of the entrepreneur (4,36). An interesting finding is that angels in Portugal don't think that they need specific industry expertise in order to invest in that sector, as they may assume their own knowledge of the industry to be irrelevant when it comes to evaluating an investment opportunity (2,11). Moreover, within the management team, angels look for persistency and survivability of the team (4,45), as well as a team with a sense of coachability, open to accept the angels' input (3,94). The track record of the team also becomes relevant for the angel when selecting investments (3,89).

According to the survey performed, during the validating step, due diligence assumes a fairly important role even at so early stage, with only 18% of the surveyed angels assuming they don't perform due diligence. The most relevant topic that angels confirm before taking the investment to the next step of the process is validating the idea with prospective clients (68%) and with industry experts (68%). Also angels tend to background check the entrepreneur (50%) and perform financial due diligence (59%) by auditing the business plan and the financial forecasts. These results are in line with the selection criteria, as angels' focus consists on validating information related to the opportunity and the idea before validating the team's skills and capabilities.

During the investment process, valuation tends not to be relevant, once 78% investors do not perform company valuation. This may be explained by the lack of skill and knowledge concerning startup valuation. Instead angels focus on the funding needed by the company in order to start operations and then carry on to the negotiation step based on the financing requirements of the firm (64%).

The next step of the decision-making stage is negotiation. During this step, primarily three topics are discussed between the angel and the entrepreneur. These topics are: negotiation of the equity percentage (77%); compensation plans for the entrepreneur or the management team (64%) and finally contract clauses such as anti-dilution or drag-along rights with 59% of the investors negotiating it with the entrepreneur. While negotiating, 68% of the investors will try to secure an equity block ranging from 20% to 49%. 27% of the examined angels will aim for a majority stake (>50%) of the company.

Once the negotiation terms are achieved between the two parts, the deal will be structured. This structure will include most of the times performance incentives for the management team (91%); exit time protection clause (82%), where a harvesting event can't occur before a certain period of time, unless the investor approves.

4.1.3. Post-investment stage

Once the decision-making stage is finished and the investment decision is favorable, the post-investment stage starts. One of the most important facts for entrepreneurs is that angels provide most of the times more than money, which makes angel money a costly type of financing. The same happens in Portugal, where the angel assumes 55% of the times the role of consultant, coach, and technical expert and 73% of the times only as a coach. This translates in angel's help with customer acquisitions, making available his own network, providing technical support, and influencing other investors which improves the chance of the firm raising funding in the future and benefits the firm by recruiting top managers for the team. A finding from this study is that Portuguese early stage investors don't ever invest as "passive" investors (0%). This indicates that, despite being a costly capital for the entrepreneur and the firm, angel money in Portugal is, most of the times, *smart money*.

In terms of harvesting events, mergers and acquisitions are the most frequent (37,3%) followed by total loss (30,5%) and management buy-out (27,1%). IPOs assume a residual role as expected (5%). The average historical return obtained by 41% of the analyzed angels in Portugal ranges from 11% - 18%. The sample average return is 6,34%. 14% of the surveyed angels assume to have historical negative returns and 5% returns above 29%. Another interesting insight regarding this last step is that angels in Portugal tend to have a small investment horizon, with 41% expecting to maintain an investment in portfolio for 3 to 5 years. The sample average expected holding period is 3,6 years.

4.2. Investment process

4.2.1. Portuguese environment

In order to fully understand the answers of this survey and to compare the Portuguese and American models, it is vital to understand the differences between the environments. In contrast with the U.S., the early stage environment in Portugal is characterized by high-risk aversion[56] and fear of failure. Portuguese early stage environment is characterized by a paradox. Despite the fact that entrepreneurs and investors are risk averse, Portuguese have entrepreneurial minds and skills, as Portugal is in the top 25 most entrepreneurial countries in the world[57]. This paradox is the reason why most

[56] See Geert Hofstede's study on risk aversion: http://www.clearlycultural.com/geert-hofstede-cultural-dimensions/uncertainty-avoidance-index/

[57] See CNN Money's report: http://money.cnn.com/magazines/fsb/fsb_archive/2007/06/01/100049637/index.htm?postversion=2007052305

entrepreneurial ventures in Portugal translate into small lifestyle and low innovation businesses instead of high-growth ventures[58].

This systemic problem of risk aversion also takes place in the early stage community. Although pre-seed investment is not taken into consideration here, seed and startup investment assume a small role in Portugal[59]. In the past 3 years, startup capital accounted for an average of 5,4% of all the investments performed[60]. As shown, the early stage investment sector in Portugal is not as relevant as it is in the U.S., as these investment characteristics contrast with the ones in the U.S., where risk aversion presents low-level scores[61].

Wiltbank (2007) provides interesting knowledge concerning angel investment characteristics in that year. This research found that 34% of angel investments occurred during the seed stage, 41% during startup investment, 18% during growth-stage, and finally 7% during the late stage[62]. In 2011, after a two-year decline in seed and start-up investment, angel funding in these early stages began to increase. In that year, 42% of all angel investment was for seed and start-up capital (Angel investor market, 2011)[63]. This number is important and representative because, during the recession, angels concentrated their investing on existing companies in the expansion and post start-up stage.

As exposed, there are several differences between the Portuguese and the American environments. High-risk aversion and low levels of early stage investment, in contrast with the American context, characterize the Portuguese one.

4.2.2. Portuguese angel investment process

After analyzing the survey results, it is possible to propose an aggregated model of the Portuguese angel investment process. This process is based on the most likely scenario that comes from the most recurrent answers in each step of the process.

The process is ignited with the sourcing of opportunities of merit. Angels in Portugal value referrals but also like to remain open to new contacts. This is why their investment opportunities come from two

[58] See http://newventurist.com/2011/11/student-entrepreneurs-speak-out-3-series/

[59] See exhibit 9 "Seed and startup investment in Portugal"

[60] Extracted from exhibit 9 "Seed and startup investment in Portugal"

[61] See Geert Hofstede's study on risk aversion: http://www.clearlycultural.com/geert-hofstede-cultural-dimensions/uncertainty-avoidance-index/

[62] Including initial investment and all the follow-on investment.

[63] Center for Venture Research, The angel investor Market in 2011

different sources. Opportunities come from referrals within their own network and through business angels' matchmaking platforms, where faceless opportunities may be sourced. Once opportunities are sourced, pre-screening criteria may be applied. Business angels who don't perform pre-screening are extremely relevant, although for those who do, the stage of the company and funding needs of the company are the most relevant criteria, where only firms within certain limits in these two categories will proceed to the screening step. What impacts the screening step the most is the idea potential, where above all, an idea of merit by itself shall be enough, most of the times, to proceed to the decision-making stage.

The decision-making stage will start by applying the selection criteria. Portuguese business angels will approve projects based on the opportunity potential and idea. In spite of being an extremely relevant point, the quality and enthusiasm of the team/entrepreneur is secondary if compared with the opportunity. An interesting opportunity, which is measured by being present in a growing market and by having high revenue potential, will typically proceed to the next step of the process. When the angel, based on the selection criteria, approves a potential investment, will then try to validate it. During the validating step, due diligence will mostly consist of validation with industry experts and prospective customers, where angels will try to understand if the project is suitable for that specific industry and if potential customers would be willing to pay for it.

Once the investment is validated, the angel will join the entrepreneur in order to understand the company's financial needs to start operations and to start generating revenues. Without performing company valuation, negotiation takes place. Angel and entrepreneur get together to negotiate and, the most important topics are contract clauses and shareholders' agreement; equity percentage and finally entrepreneur/management team compensation. Within the shareholders' agreement, an exit clause protecting the investor will be present most of the times, as well as performance incentives for the entrepreneur/management team, assuming both parts were able to achieve consensus during the negotiation step.

After approving and investing, the angel will, most of the times adopt an active role. This role assumed by the angel may beneficiate the firm in several aspects. The angel will help the firm in business development, helping to acquire new customers through his own network. Another important input of the angel is the role he assumes in recruiting talented managers for the firm; as well as contacting other investors, increasing the chance of the firm securing additional rounds of financing. According to the previously exposed research[64], Portuguese angels often assume the team member role, having high impact in the firm. This high impact can be positive or negative if they micro-manage the entrepreneur.

The investment process will end with a harvesting event. The most likely to happen and to be pursued by the investors it a trade sale – financial or strategic. Knowing angel investments are illiquid, business angels in Portugal expect to stay with an investment in their portfolio for around 3 to 5 years, time when, on average, the harvesting event takes place.

[64] See section 2.3.5 - Supporting

5. CONCLUSION

5.1. Conclusion

The purpose of this thesis was to expose the angel investment process in Portugal through an empirically based study. It also aimed to provide the differences between the U.S. and the Portuguese angel investment processes.

This thesis was able to create a comprehensive and aggregated vision of the angel investment process in Portugal, achieved through an empirical approach, which surveyed 22 business angels investing in Portugal, as exposed above. Also, it was able to identify the Portuguese case and to identify the major differences when compared to the American model. As expected, these differences happen all the way along the process, during the 3 stages, pre-investment, decision-making, and the post-investment stages, and within these stages, divergences occur during all the 9 steps of the model.

The first place where a relevant difference appears is at the pre-investment stage during the sourcing step. Angels in Portugal usually source their opportunities based on referrals but contrarily to what happens in the U.S., angels in Portugal also source opportunities through anonymous sources. This indicates that angels in Portugal don't value referrals as much as in the U.S. where the fact that the entrepreneur/idea comes through a referral is vital and most of the times the only way to move to the next step of the process.

Another relevant difference takes place during the screening level. In general, individual American angels have pre-screening criteria, where they eliminate *a priori* investment opportunities that don't fit the criteria. In Portugal this does not seem to be happening. A relevant number of angels don't have pre-screening criteria. This may be occurring because the early stage market in the U.S. is more competitive, and angels' tend to specialize in a specific sector such as technology, biotech etc., and create pre-screening criteria based on that specialization. In Portugal the early stage ecosystem is not competitive, and that may be why angels tend to be generalist, investing in every industry and not creating a pre-screening criteria.

Also, during the decision-making stage important divergences in the investment models seem to be happening, starting in the selecting step. The selection criteria and the assessment of opportunity is also a point of divergence. American angels are focused on the team, assessing the entrepreneur's enthusiasm and trustworthiness. As proven by previous research, it is the entrepreneurs' skills and track record that American business angels value the most. In Portugal, attention is paid to the opportunity and to the market. This means that it is a general belief of the Portuguese business angels that the skills of the entrepreneurs won't influence the venture as much as the original idea or concept.

Company valuation is a point of deviation between the two cases. Valuation is not performed at all at this early stage in Portugal. One possible reason is because angels in Portugal are not familiarized with seed and startup company valuation. As explained previously, most early stage investors in the U.S., do perform company valuation at so early stage. Hand-in-hand with this step is the validating step, where due diligence is performed. Portuguese investors focus on financial due diligence, almost auditing the business plan and the financial forecasts. In the U.S., this is not taken so seriously, as angels know that at this early stage projections are so uncertain they become irrelevant.

Another relevant difference occurs while negotiating and structuring the deal. Portuguese angels are much more conservative and aim for a higher stake of the company. Due to disbelief in the entrepreneur capability to create a successful company, angels in Portugal tend to require a big stake or sometimes even the majority of the company – unless the entrepreneur has proven to be successful before. In the U.S., this doesn't seem to happen. Angels position themselves as a boost for the company, where they are not there to raise the company by themselves, but to help the entrepreneur while doing it, and thus ask for smaller percentages of the company. This may also be happening due to the fact that competition in the U.S. is higher between angels and all the early stage market intervenient, leading them to propose better terms for the entrepreneurs. Contrarily, as there are only a few players in the Portuguese early stage market, they are able to negotiate better terms, making angel capital even costlier for the company in Portugal than in the U.S. This may also be happening due to the fact that Portuguese investors are highly risk averse, demanding higher premium for investing at this early stage.

The way business angels impact the ventures they participate in, is also different in the two models. In spite of being active, American angels stand on the sidelines, intervening when the entrepreneur requests and thinks its necessary, acting as a coach, the role with the highest impact. They don't intend to be the one raising the company, but only to help during the process. In Portugal, angels are also active investors. The difference is the fact that Portuguese angels try to impact all of the firm's decisions: strategic, operational, technical and other relevant decisions, acting as a team member, having also high impact, but this impact can be positive or negative if they micro-manage the entrepreneur. This may be taking place due to risk aversion and disbelief of the entrepreneur skills, where angels try to protect their investment by assuming a more active role.

To conclude, the expected holding period in the harvesting step also seems to differ. In Portugal investors expect to stay invested in a company for a period ranging from 3 to 5 years, whereas in the U.S. angels are more patience, expecting to hold an investment from 5 to 7 years.

Now, it is the hope of the author that after reading this thesis, the reader has a clear vision of the early stage environment in Portugal and in particular the angel investment process. Moreover, this thesis aims to instruct Portuguese angels about the American model of angel investment.

5.2. Limitations and Future Research

Nevertheless, there are limitations inherent that come hand-in-hand with this thesis' dissertation research topic. Due to lack of research, when exposing the American model some issues arouse. The selection criteria exposed and assumed as the one in force, may not be representative of the angels in the U.S., but representative of angels in California, Silicon Valley. This is due to the fact that these selection criteria surveyed angels in California. These angels are usually investing towards technology sectors, which might bias the selection criteria by excluding interesting aspects inherent to angels investing in another sectors. Another limitation of this work is the study of the motivations of business angels. Due to lack of research, these motivations were exposed based on a group of France-based angels. It is the author's suggestion, in order to mitigate these limitations, to study both the motivations and the selection criteria followed by business angels in the U.S.

The main limitation of this work, which makes it more relevant at the same time, is the degree of opacity characterizing business angels and angel activity in Portugal. This opacity became a limitation because knowledge about this subject in Portugal was unavailable, and angels are not comfortable with exposing information, as is evident by the number of answers the survey received. The survey sample consists of 22 business angels. It is the author's suggestion that future research may include a more representative number of Portuguese angel investors.

This work aims mainly to instruct business angels operating in Portugal, by exposing the American model and the underlying differences between the two models. In order to assist Portuguese entrepreneurs, helping them to better understand the angel activity several areas should be the subject of future research. The several steps of the process should be subject of future research, separately. The way angels select their investments in Portugal, the underlying selection criteria, the impact of angels on their investments, or even the negotiation step should be the topics of further investigation, as this would help Portuguese entrepreneurs in their quest to better understand the early stage market and to raise angel investment.

Bibliography

Zingales & Rajan, RG 1995, 'What do we know about capital structure? Some evidence from international data', Journal of Finance - American Finance Associattion, vol 50, no. 5 - December 1995, pp. 1421-1460.

Wetzel 1983, 'Angels and the informal Risk Capital'.

Winborg, J & Landstorm, H 2001, 'Financial Bootstrapping in Small Businesses: Examining Small Business Managers' Resource Acquisition Behaviors', Journal of Business venturing , vol 16, no. 3 - May 2001, pp. 235-254.

Winton, A & Yerramilli, V 2007, 'Entrepreneurial Finance: Banks versus Venture Capital', Journal of Financial Economics (JFE).

Wong, AY 2002, 'Angel Finance: The Other Venture Capital'.

Van Osnabrugge, M & Robinson, RJ May 2000, Angel Investing: Matching Start-up Funds with Start-up Companies. A Guide for Entrepreneurs, Individual Investors, and Venture Capitalists, Jossey-Bass Business & Management, San Francisco.

'Venture Capital' 2011, National Venture Capital Association.

Auken, HE & Neeley 1996, 'Evidence of bootstrap financing among small start-up firms', Journal of Entrepreneurial Small Business Finance, vol 5, no. 3, pp. 235-249.

Amatucci, FM & Sohl, JE 2004, 'Women Entrepreneurs Securing Business Angel Financing: Tales from the Field', Venture Capital: An International Journal of Entrepreneurial Finance, vol 6 , no. 2-3, pp. 181-196.

Amis, D & Stevenson, H 2002, 'Winning Angels - The 7 Fundamentals of Early Stage Investing', International Small Business Journal.

Brettel, M 2010, 'Corporate Venture Capital', Innovation and International Corporate Growth, vol 3, pp. 349-357.

Casamatta, C 2000, 'Financing and Advising Optimal Financial Contracts with Venture Capitalists', Journal of Finance, vol 58 , no. 5, pp. 2059-2086.

Cassar, G 2002, 'The financing of business start-ups', Journal of Business venturing, vol 19 - 2004, no. 2, pp. 261-263.

Carpenter, R & Petersen, B 2002, 'Capital Market Imperfections: High Tech Investment and New Equity Financing', The Economic Journal, vol 112, pp. 54-72.

Clark, C 2008, 'The Impact of Entrepreneurs' Oral "Pitch" Presentation Skills on Business Angels' Initial Screening Investment Decisions', Venture Capital: An International Journal of Entrepreneurial Finance, vol 10, no. 3, pp. 257-279.

'European Early Stage Impact Investing' 2011, EBAN.Ebben & Johnson 2005, 'Bootstrapping in Small Firms: An Empirical analysis of Change Over Time', Journal of Business Venturing, vol 21 - 2006, pp. 851-865.

Egeln, J, Licht, G & Steil, F 1997, 'Firm Foundations and the Role of Financing Constraints', Small Business Economics - European S.M.E. Financing: An Overview, vol 9, no. 2, pp. 137-150.

Damodaran, A 2001, 'Corporate Finance: Theory and Practice '.

Dennis, D 2004, 'Entrepreneurial Finance: An overview of the issues and evidence', Journal of corporate finance 10 , pp. 301-326.

Fenn, G, Liang, N & Prowse, S 1997, 'The Private Equity Market: An Overview', Financial Markets, Institutions & Instruments, vol 6, no. 4, pp. 1-106.

'Financing High-Growth Firms: The Role of Angel Investors' 2011, Directorate for Science, Technology and Industry, OECD.

Freear, J & Sohl, JE 1995, 'Angels: Personal Investors in the Venture Capital Market', Entrepreneurship and Regional Development: An International Journal, vol 7, no. 1, pp. 85-94.

Freear, J, Sohl, JE & Wetzel, WE 1994, 'Angels and Non-Angels: Are There Differences?', Journal of Business Venturing, vol 9, no. 2, pp. 109 - 123.

Freear, J, Sohl, JE & Wetzel, WE 1996, 'Creating New Capital Markets for Emerging Ventures', Office of Advocacy, U.S. Small Business Administration.

Gompers, PA & Lerner, J 1999, The Venture Capital Cycle, MIT Press.

Gompers, PA & Lerner, J 2000, 'The Determinants of Corporate Venture Capital Sucess: Organizational Structure, Incentives and Complementarities', NBER Working Paper, no. 6725 - September 1998.

Gorman, M & Sahlman, W 1989, 'What do venture capitalists do?', Journal of Business Venturing, vol 4, no. 4, pp. 231-248.

Haines, R 2010, 'Private Investor's Criteria'.

Haines, GH, Madill, JJ & Riding, AL 2003, 'Informal Investment in Canada: Financing Small Business Growth', Journal of Small Business and Entrepreneurship, vol 16, no. 3-4, pp. 13-40.

Haines, GH, Madill, JJ & Riding, AL 2007, 'The Role of Angels in Technology SME's: A Link to Venture Capital', Venture Capital: An International Journal of Entrepreneurial Finance, vol 7, no. 2, pp. 107-129.

Harrison, RT & Mason, CM 1997, 'Entrepreneurial Growth Strategies and Venture Performance in The Software Industry', Frontiers of Entrepreneurship Research, vol Ed.XI Firm Performance.

Hellman, T 1998, 'A Theory of Corporate Venture Investing', Stanford University GSB Working Paper - Saunder School of Business Working Paper, no. J452.

Hellman, T & Puri, M 2002, 'Venture capital and the professionalization of start-up firms', The Journal of Finance, vol 57, no. 1 - February 2002, pp. 169-197.

Jones, G & Butler, J 1992, 'Managing Internal Corporate Entrepreneurship: An Agency Theory Perspective', pp. 18: 733-749.

Kaplan, SN & Stromberg, P 2001, 'Venture capitalists as principals: contracting; screening and monitoricng', American Economic Review - Paper proceedings of 113th Annual Meeting of the American Economic Association, vol 91 - May 2001, no. 2, pp. 426-430.

Kelly, P & Hay, M 2003, 'Business Angels Contracts: The Influence Context', Venture Capital: An international Source of Entrepeneurial Finance, vol 5 - 2003, no. 4, pp. 287-312.

Langlois, RL 2005, 'The Entrepreneurial Theory of the Firm and the Theory of the Entrepreneurial Firm', Economics Working Papers, no. 200527.

Levenson, AR & Willard, KL 2000, 'Do Firms Get the Financing They Want? Measuring Credit Rationing Experienced by Small Businesses in the U.S.', Small Business Economics, vol 14 , no. 2 - March 2000, pp. 83-94.

Liang, N & Prowse, S 1998, 'The Private Equity Market. An Overview', Financial Markets, Institutions and Instruments, vol 6 - July 1997.

Linda, LA & Prasad, A 1999, 'Venture Support Systems Project: Angel Investors (release 1.1.2000)', MIT Entrepeneurship Center.

Lipper, G & Sommer, B 2002, 'Encouraging Angel Capital: What U.S.A. is doing', Venture Capital: An International Journal of Entrepreneurial Finance, vol 4, no. 4, pp. 357-362.

Mulcahy, D 2005, 'Venturing Forward - A Practical Guide to Raising Equity in Ireland', Oak Tree Press, p. 95.

Mason, C & Harrison, RT 1996, 'Why Business Angels Say No: A Case Study of Opportunities Rejected by an Informal Investor Syndicate', International Small Business Journal, vol 14, no. 2 - Januray 1996, pp. 35-51.

Mason, C & Harrison, RT 2000, 'The Rates of Return From Informal Venture Capital Investments', Journal of Business Venturing, vol 17 - 2002, pp. 211-236.

Morrisette, SG 2007, 'A Profile of Angel Investors', The Journal of Private Equity, vol 10, no. 3 - Summer 2007, pp. 52-66.

Ojala, M 2002, 'Researching Small Business Concerns', Online-Weston Then Wilton , vol 26, no. 6 - 2002, pp. 55-57.

Osnabrugge, MV & Robinson, RJ 2000, 'The Influence of a Venture Capitalist's Source of Funds', Venture Capital: An International Journal of Entrepreneurial Finance, vol 3, no. 1 - 2001, pp. 25-39.

Paul, S, Whittam, G & Johnson, JB 2003, 'The Operation of the Informal Venture Capital Market in Scotland', Venture Capital: An International journal of Entrepreneurial Finance, vol 5, no. 4 - 2003, pp. 313-335.

Payne, JW, Bettman, JR & Johnson, EJ 1992, 'Behavioral Decision Research: A Constructive Processing Perspective', Annual Review of Psychology, vol 43, pp. 87-131.

Prowse & Stephen 1998, 'Angel Investor and the Market for Angel Investments', Journal of Banking & Finance, vol 22, no. 6-8 - August 1998, pp. 785-792.

Sudek, R 2006, 'Angel Investment Criteria', Journal of Small Business Strategy, vol 17, no. 2 - Fall/Winter 2006/2007, pp. 89-103.

Sahlman, WA 1990, 'The Structure and Governance of Venture Capital Organizations', Journal of Financial Economics, vol 27 - 1990, pp. 437-521.

Stuart, P, Whittam, G & Wyper, J 2006, 'Towards a Model of the Business Angel Investment Process', Venture Capital: An International Journal of Entreprenurial Finance, vol 9, no. 2, pp. 107-125.

Storey, DJ 1998, 'New Firm Growth and Bank Financing', Small Business Economics, vol 6, no. 2 - 1999, pp. 139-150.

'The Angel Investor Market' 2011.

Wetzel 1983, 'Angels and the informal Risk Capital'.

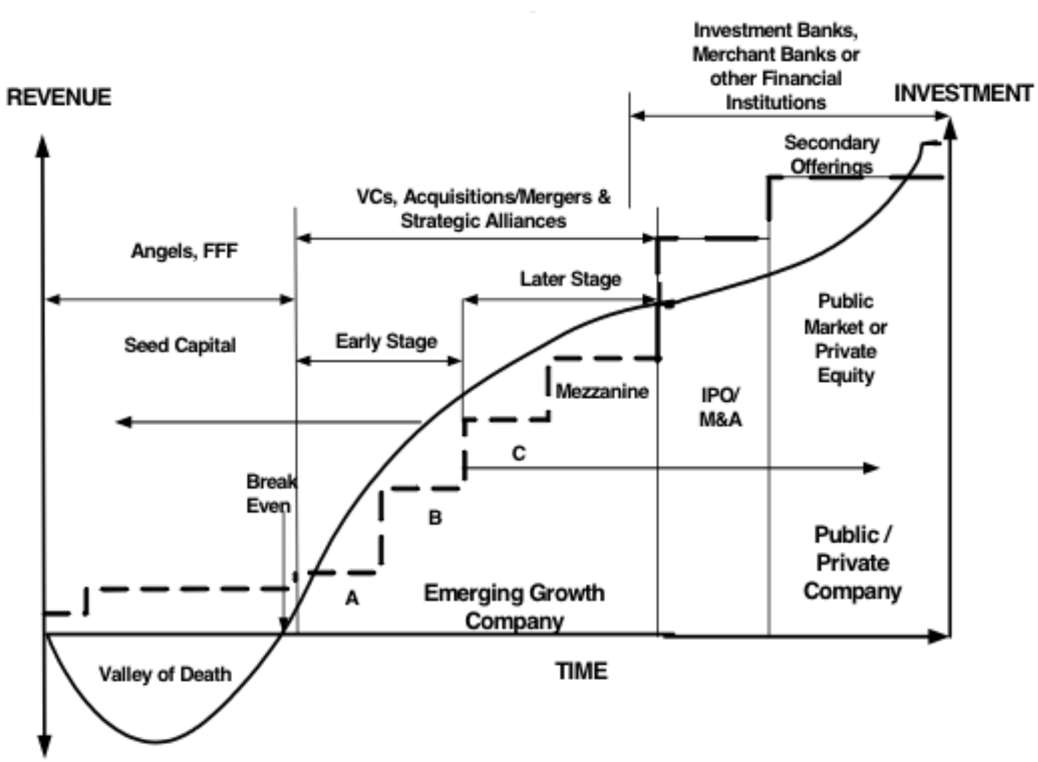
Winborg, J & Landstorm, H 2001, 'Financial Bootstrapping in Small Businesses: Examining Small Business Managers' Resource Acquisition Behaviors', Journal of Business venturing , vol 16, no. 3 - May 2001, pp. 235-254.

Winton, A & Yerramilli, V 2007, 'Entrepreneurial Finance: Banks versus Venture Capital', Journal of Financial Economics (JFE).

Wong, AY 2002, 'Angel Finance: The Other Venture Capital'.

Zingales & Rajan, RG 1995, 'What do we know about capital structure? Some evidence from international data', Journal of Finance - American Finance Associattion, vol 50, no. 5 - December 1995, pp. 1421-1460

Exhibit 1 – Finance Hierarchy



Source: EBAN Toolkit 2009

Exhibit 2 – Business Angels versus Venture Capitalists

Key differences	Business Angels	Venture Capitalists
Personal characteristics	Entrepreneurs	Financial managers
Invested funds	Own money	Fund investors' money
Investees	High potential start-ups and early stage	Medium-sized to large growing companies
Due diligence	Experienced-based Lower cost	More formal Expensive
Geographical proximity	Important	Less important
Form of contract	Simpler deal structures with emphasis on fairness	Complex and demanding
Post-investment monitoring	Active, hands-on	Strategic
Involvement in management	Important	Less important
Exit route	Less important	Very important
Return on investment	Important, but probably less demanding overall because of lower costs of the investment process	Very important

Source: EBAN Toolkit 2009

Exhibit 3 – Angel Capital Market: Europe versus U.S.A.

2007	**EU**		**US**
Networks		297	245
Estimate n of angels		75.000	250.000
Investment per round		165.000€	210.500€
Total estimate invested annually		3-5 billion€	20 billion€
Total invested by VC annually in seed (EVCA data)	-	4 billion €	20 billion €

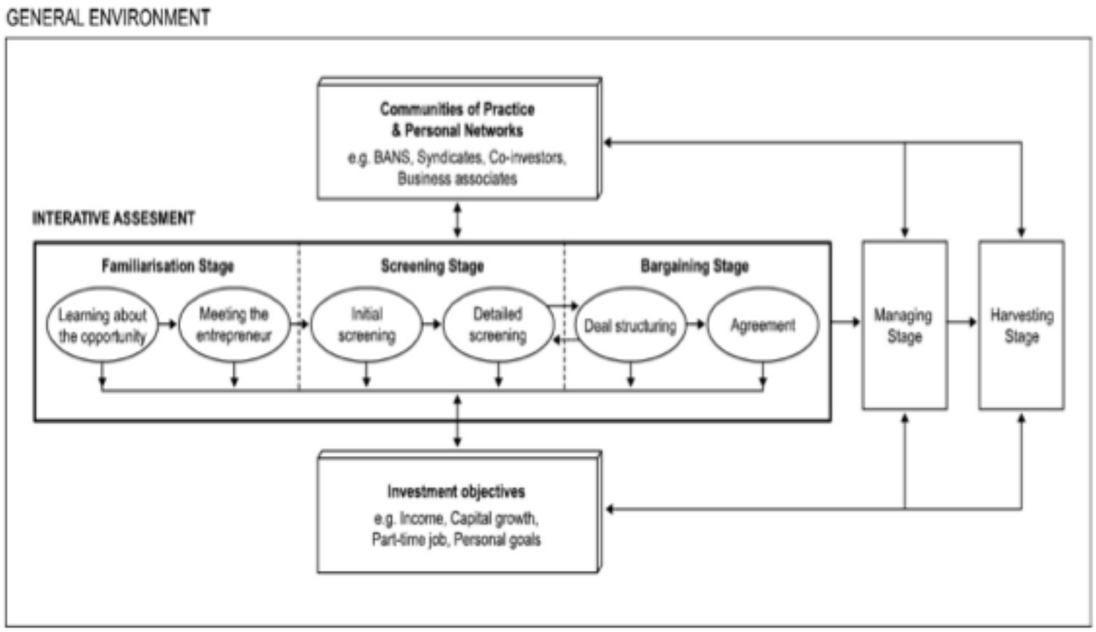
Source: EBAN Toolkit 2009

Exhibit 4 – Business Angels' Profiles

Type	Characteristics	Wealth and level of investment	Investment objectives	Main criterion for investment	Investment location	Other factors
Entrepreneur Angel	The most active and experienced angel	Worth over €1.6m, with annual income €167K. Invest over €837K.	Financial gain, but also fun and satisfaction	Personality of company founder	Not important	More open that other angels to investing outside of its own field of experience
Corporate Angel	Companies (or directors) making angel-type investments	Almost 40% of survey group had invested over €837K in new ventures	Financial gain, but this is often less than earned by individual angels	Personality of founder or manager	Prefer to invest close to location	Own experience in sector is important
Income seeking angel	Active individual investors, but with lower level of investments than other types	30% of group worth less than €167K. Invest €40-84K	Create a job for self and financial return	Personality of founder or manager	Not important	
Wealth maximising	Private individuals with several investments in new ventures	80% of group worth over €837k. Invest €40-167K	Financial gain and job for self	Personality of founder or manager	Not Important	Opportunities for co-investment; access to knowledge of other investors
Latent	Inactive for the past three years, but having made at least one investment before that	50% of group have over €167 available for investment; some much more	High financial return and job for self	Personality of founder or manager	Strong preference for venture close to angel	Clearly available exit routes
Virgin	Not yet made an investment in an unquoted venture	Less funds than all other angel types, but this not felt to be a restriction	Higher return than from stock market; also job or income for self	Personality of founder or manager	Prefer to invest close to location of angel	25% say own experience in sector is important

Source: EBAN Toolkit 2009

Exhibit 5 – Angel Investment Process



Source: Stuart, P. Wittam, 2006, “Towards a Models of the Business Angel Investment”

Exhibit 6 – OECD Typical Angel Investment Process

Deal sourcing	Deal sourcing can be proactive or reactive . Most deal sourcing comes through members, through their networks and interactions with other players in the ecosystem (service providers, VCs, incubators, accelerators, etc.).
Deal screening	Applications are normally centralised and managed with a software package (angelsoft is often used). Initial deal screening can be informal (conducted by some of the members) or formal (conducted by the group or network manager).
Initial feedback/coaching	Companies making the initial screening will be contacted and may receive some coaching regarding the expectations of investors and how to better present the company.
Company presentations to investors	Selected companies may then be invited to present to the members at an event, normally held once a month. Typically 2-4 companies present. The investors then discuss aspects of the company and potential deal in a "closed" session.
Due diligence	Due diligence is normally done on a formal basis and includes: a competitive analysis, validation of product and IP, an assessment of the company's structure, financials and contracts, a check of compliance issues and reference checks on the team.
Investment terms and negotiations	If members remain interested, term sheets need to be prepared and the company valuation negotiated. Increasingly, angel groups and networks use standardised term sheet templates. The company may then present to the members a final time.
Investment	Interested members can then form a syndicate to invest in the company. The final documents are drawn up and a lawyer is often engaged in the process. There is a formal signing of documents and the agreed-upon funding is collected.
Post-investment support	After the investment, investors often monitor, mentor and assist the companies with expertise and connections. In addition, the investors often work closely with the company to facilitate an exit (IPO or M&A) at the appropriate time.

Source: OECD 2007 High Growth Financing

Exhibit 7 – U.S. Angel Selection Criteria

Investment Criteria	Rank of Current Study	Mean	STD	Rank of Van Onsabrugge
Trustworthiness/honesty of the entrepreneur(s)	1	4.81	.399	2
Management Team	2	4.64	.657	N/A
Enthusiasm/commitment of the entrepreneur(s)	3	4.63	.592	1
Potential exit routes (potential liquidity)	4	4.53	.712	24
Revenue potential	5	4.47	.581	3
Domain expertise of the entrepreneur(s)	6	4.44	.603	4
Growth potential of the market	7	4.29	.701	6
Return on Investment (ROI)	8	4.26	.805	11
Barrier for entry for competitors	9	4.19	.781	N/A
Product's overall competitive protection (in market segment)	10	4.11	.815	21
Profit margin of the business	11	4.08	.746	15
Track record of the entrepreneur(s)	12	4.00	.839	10
Competition of market segment	13	3.94	.785	17
Liked entrepreneur(s) upon meeting	14	3.90	.922	5
Product's formal competitive protection (patents)	15	3.56	.933	27
Your personal knowledge of the business/industry	16	3.53	.822	27
Ability to maintain low overhead	17	3.46	1.020	18
Potential of co-investors present	18	3.44	1.033	18
Advisors currently involved	19	3.40	.899	N/A
Niche market	20	3.31	1.121	9
Size of the investment	21	3.26	.769	20
Ability to reach break-even without further funding	22	3.24	1.000	18
Low initial capital expenditures needed (i.e. on assets)	23	3.22	.996	22
Investor's (your) strengths fill gaps in business	24	2.92	1.017	20
Ability for involvement possible (contribute skills)	25	2.85	.914	13

Source: Sudek 2007, Angel Investment Criteria

Exhibit 8 – U.S. Management Team Selection Criteria

Item	Rank	Mean	STD
Passion of the team	1	4.71	.568
Perceived sense of survivability of the team (how persistence they will be without giving up)	2	4.42	.707
Openness of team for mentoring (coachabilty)	3	4.33	.628
Track record of individual team members	4	4.04	.759
How complementary the skills of the team are	5	3.87	.691
Experience of the advisors	6	3.67	.888
How much experience the team has working together	7	3.22	.826

Source: Sudek 2007, Angel Investment Criteria

Exhibit 9 – Seed and Startup Investment in Portugal

unidades: 1.000 euros	2003		2004		2005		2006		2007		2008			2009			2010		
TIPO DE INVESTIMENTO	Valor	Empresas	Valor	Empresas	Valor	Empresas	Valor	Empresas	Valor	Empresas	Valor	Empresas	%Valor	Valor	Empresas	%Valor	Valor	Empresas	%Valor
Semente	0	0	0	1	4.332	13	6.000	12	200	1	0	0	0,0%	0	0	0,0%	0	?	0,0%
Start-Up	13.503	34	24.187	38	26.721	53	18.059	57	27.813	48	8.022	?	3,0%	31.305	?	10,3%	5.000	?	3,0%
Expansão	59.850	59	89.507	62	86.313	50	86.944	37	29.996	25	2.912	?	1,1%	8.866	?	2,9%	62.000	?	37,8%
Substituição	19.240	14	4.776	2	116.365	7	17.761	11	260	2	3.242	?	1,2%	65.069	?	21,4%	8.000	?	4,9%
Recue/Tumaround	0	0	1.698	11	1.371	7	1.819	3	17.713	6	0	0	0,0%	67.716	0	22,3%		?	0,0%
Buyout	8.341	6	4.050	2	9.442	5	38.299	12	92.908	11	250.819	?	94,0%	130.442	?	43,0%	89.000	?	54,3%
Outros	0	0	0	0	0	0	11.163	11			1.764	?	0,7%		?	0,0%		?	0,0%
Total	**100.934**	**113**	**124.218**	**116**	**244.544**	**135**	**180.045**	**143**	**168.890**	**93**	**266.759**	**?**	**100,0%**	**303.398**	**132**	**100,0%**	**164.000**	**51**	**100,0%**

Source: Gesbanha

Exhibit 10 a/b – Survey (Portuguese and English)

Exhibit 10.a – Portuguese Version

Pré-investimento

1 – Como tem acesso aos projectos de investimento/ideias?

1. Plataforma de associações de business angels
2. Através de referências feitas por outros business angels
3. Através da minha própria rede de contactos
4. Através de empreendedores em quem já investi
5. Outra:

2 – Tem critérios de pré-avaliação estabelecidos formalmente? Se sim, quais?

1. Indústria / Sector do projecto
2. Financiamento requerido pelo projecto
3. Stage em que a empresa se encontra (Seed, Startup, Mezzanine, etc.)
4. Não tenho critérios de pré-avaliação
5. Outra:

3 – Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (Ex: chamar para uma sessão de pitch)? (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

1. Potencial / Ideia do projecto
2. Já conheço o empreededor ou veio devidamente referenciado por quem me encaminhou a oportunidade
3. Qualidade do plano de negócio e projecções financeiras
4. Existência / Composição da equipa
5. Outro:

Decisão de investimento

4 – Quais são para si os critérios de avaliação mais importantes? (O que procura num projecto de forma a investir)? (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

1. Confiança que tenho no empreendedor / Honestidade do empreendedor
2. Equipa de gestão
3. Entusiasmo e grau de compromisso do empreendedor
4. Potencial de saída do investimento (potencial liquidez)
5. Potencial de receitas
6. Conhecimento técnico do empreendedor
7. Potencial de crescimento do Mercado
8. ROI (retorno esperado do investimento)
9. Barreiras à entrada a potenciais concorrentes
10. O meu próprio conhecimento da indústria / sector
11. Concorrência no Mercado
12. Investimento requerido

5 – O que procura dentro da equipa de gestão? O que considera mais relevante (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

1. Paixão da equipa
2. Persistência e capacidade de "sobrevivência" da equipa
3. Abertura da equipa a ser acompanhada por um mentor
4. Equipa possui skills complementares
5. Track record dos membros individuais da equipa

6 – Que informação considera mais importante levantar de forma a validar o investimento?

1. Projeções financeiras
2. Equipa (Recorre a LinkedIn, etc)
3. Validação da ideia junto de technical experts (Ex: Este projecto funciona?)
4. Validação da ideia junto de industry experts (Ex: Este projecto faz sentido?)
5. Validação da ideia junto de potenciais clientes (Ex: Compraria este produto?)
6. Não dou grande enfoque à due diligence – recorro ao instinto

7 – Como avalia um projecto de investimento?

1. Não faço avaliação uma vez que é imprevisível neste stage de investimento
2. Discounted cash flow

3. Múltiplos de Mercado e de transacção de empresas semelhantes
4. Não faço avaliação de empresas: pré-estabeleço limites de investimento e só invisto se estiver dentro desses limites
5. Não faço avaliação da empresa: procure saber quais as necessidades de investimento da startup e negoceio a percentagem que isso significará
6. Outra:

8 – Ao que dá maior enfoque aquando da negociação?

1. Avaliação da empresa
2. Divisão de percentagem da empresa
3. Limites de compensação da equipa / empreendedor
4. Cláusulas do contracto
5. Não negoceio
6. Outra:

9 – Qual é a proporção da empresa alvo de investimento que preferencialmente procura deter?

7. < 20%
8. 20% - 49%
9. > 50%

10 – Como estrutura o investimento? Quais das seguintes cláusulas inclui no contracto?

1. Inclui cláusula anti-diluição
2. Limites de compensação do empreendedor
3. Incentivos de performance
4. Mecanismos de controle
5. Protecção de saída
6. Não estruturo com este detalhe
7. Outra:

Pós-investimento

11 – Como acompanha e suporta os investimentos?

1. Disponho apenas o meu conhecimento técnico de forma a desenvolver o produto / serviço
2. Apenas monitorizo o investimento, através de acesso às contas e necessidade da minha autorização, não participando na gestão diária da empresa

3. Disponibilizo rede de contactos de forma a captar clientes, potenciais co-investidores e equipa de gestão, e intervenho nas decisões estratégicas da empresa, prestando coaching à equipa
4. Faço parte da gestão diária da empresa, dispondo de contactos, conhecimento técnico, actuando como mentor e consultor
5. Não faço qualquer acompanhamento
6. Outra

12 – Historicamente, como foram as saídas dos investimentos? (Diga quantas saídas teve em cada uma das seguintes opções)

1. Fusão ou aquisição: Vendido a um fundo de venture capital, private equity ou a um player da indústria
2. Recompra de acções por parte da equipa de gestão
3. IPO (entrada em bolsa)
4. Perda total de investimento

13 – Qual a taxa de retorno médio que obteve históricamente?

1. < 0%
2. 1% - 10%
3. 11% - 18%
4. 19% - 28%
5. > 29%

14 – Qual o horizonte temporal esperado para manter uma empresa em portfolio?

1. Até 3 anos
2. Entre 3 a 5 anos
3. Mais de 5 anos
4. Não considero o horizonte temporal esperado relevante

Exhibit 10.b – English Version

Pre-investment stage

1 – What instrument do you use in your sourcing strategy?

1. Business angels associations matchmaking platforms
2. Through other angels' referrals
3. Through my own network referrals
4. Through referrals from entrepreneurs that I know and trust
5. Other:

2 – Do you have pre-screening criteria? What does it consist of?

1. Industry / area of the project
2. Required funding of the project
3. Company stage (seed, startup, etc.)
4. I don't have a pre-screening criteria
5. Other:

3 – Within the projects you get, what do you care the most in order to proceed to the next stage of the investment process? (1 to 5: 1– Irrelevant; 5 – Relevant)

1. Potencial / Idea
2. Entrepreneur came through referral
3. Business plan and financial forecasts' quality
4. Existence / Team composition
5. Other:

Decision-making stage

4 – What are your selection criteria? What do you look for in an investment opportunity? (1 to 5: 1– Irrelevant; 5 – Relevant)

1. Trustworthiness / honesty of the entrepreneur (s)
2. Management team
3. Enthusiasm / commitment of the entrepreneur
4. Potential exit routes (potential liquidity)

5. Revenue potential
6. Domain expertise of the entrepreneur
7. Growth potential of the market
8. ROI (retorno on investment)
9. Barrier for entry for competitors
10. Your personal knowledge of the business/industry
11. Competition of market segment
12. Size of the investment

5 – What do you look for, within the management team? (1 to 5: 1– Irrelevant; 5 – Relevant)

1. Passion of the team
2. Perceived sense of survivability of the team
3. Openess of team for mentoring (coachability)
4. How complementary the skills of the team are
5. Track record of individual team members

6 – What information do you validate when performing due diligence?

1. Financial projectos
2. Team (LinkedIn, etc)
3. Idea validation – technical experts
4. Idea validation – industry experts
5. Idea validation – prospective clients
6. I don't perform due diligence – I use my "gut feeling"

7 – How do you evaluate a company / startup?

1. I don't perform company valuation
2. Discounted cash flow
3. Market or transaction multiples
4. I don't perform company valuation: I establish a valuation range, and will invest only if the company is valued within this range
5. I don't perform company valuation: I try to understand the company funding needs to start operations and negotiate equity from there
6. Other:

8 – What topics do you negotiate?

1. Company valuation
2. Equity percentage
3. Team / entrepreneur's compensation

4. Contract terms
5. I don't negotiate
6. Other:

9 – What is the equity block that you usually pursue?

1. < 20%
2. 20% - 49%
3. > 50%

10 – How do you structure the deal terms?

1. Anti-dilution clausule
2. Team compensation limits
3. Performance incentives
4. Control mechanisms
5. Exit protection
6. I don't structure formally
7. Other:

Post-investment stage

11 – How do you support your investments?

1. I will provide my technical expertise
2. Only by monitoring the investment
3. I will use my own network to help raise the company: attract customers, co-investors, top management team and will intervene only in the firm's strategic decisions, acting as a coach
4. I'm part of the company's management team, helping with my network, acting as a consultant, technical expertise, mentor and consultant
5. I'm a passive investor
6. Other

12 – Historically, how have you exited your investments?

1. M&A: Financial or strategic trade sale
2. Management buy-out

3. IPO (Initial Public Offering)
4. Total loss

13 – What is your historic average return as an angel investor?

1. < 0%
2. 1% - 10%
3. 11% - 18%
4. 19% - 28%
5. > 29%

14 – What is your expected holding period, once you perform an invesment?

1. Up to 3 years
2. Between 3 to 5 years
3. More than 5 anos
4. Not relevant

Exhibit 11 – Survey Results (Portuguese and English)

1a – Como tem acesso aos projectos de investimento/ideias?

1. Plataforma de associações de business angels
2. Através de referências feitas por outros business angels
3. Através da minha própria rede de contactos
4. Através de empreendedores em quem já investi
5. Outra:

1b – What instrument do you use in your sourcing strategy?

1. Business angels associations matchmaking platforms
2. Through other angels' referrals
3. Through my own network referrals
4. Through referrals from entrepreneurs that I know and trust
5. Other:

Plataforma de associações de Business Angels	**16**	73%
Através de referências feitas por outros Business Angels	**7**	32%
Através da minha própria rede de contactos (Colegas de emprego, sócios, clientes, família, etc)	**17**	77%
Através de empreendedores em quem já investi	**7**	32%
Other	**8**	36%

People may select more than one checkbox, so percentages may add up to more than 100%.

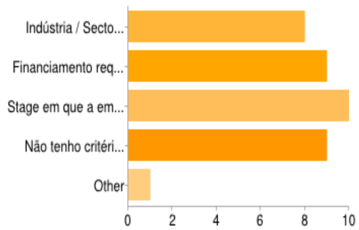
2a – Tem critérios de pré-avaliação estabelecidos formalmente? Se sim, quais?

1. Indústria / Sector do projecto
2. Financiamento requerido pelo projecto
3. Stage em que a empresa se encontra (Seed, Startup, Mezzanine, etc.)
4. Não tenho critérios de pré-avaliação
5. Outra:

2b – Do you have pre-screening criteria? What does it consist of?

1. Industry / area of the project
2. Required funding of the project
3. Company stage (seed, startup, etc.)
4. I don't have a pre-screening criteria
5. Other:

Tem critérios de pré-selecção estabelecidos formalmente? Se sim, quais?



Indústria / Sector do projecto	8	36%
Financiamento requerido pelo projecto	9	41%
Stage em que a empresa se encontra (Seed, Startup, Mezzanine, etc)	10	45%
Não tenho critérios de pré-avaliação (olho para todos os projectos)	9	41%
Other	1	5%

People may select more than one checkbox, so percentages may add up to more than 100%.

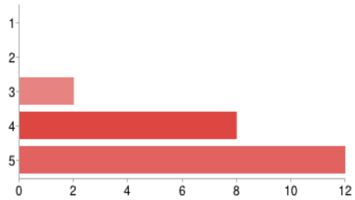
3a – Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (Ex: chamar para uma sessão de pitch)? (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

1. Potencial / Ideia do projecto
2. Já conheço o empreededor ou veio devidamente referenciado por quem me encaminhou a oportunidade
3. Qualidade do plano de negócio e projecções financeiras
4. Existência / Composição da equipa
5. Outro:

3b – Within the projects you get, what do you care the most in order to proceed to the next stage of the investment process? (1 to 5: 1– Irrelevant; 5 – Relevant)

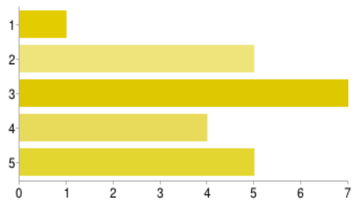
1. Potencial / Idea
2. Entrepreneur came through referral
3. Business plan and financial forecasts' quality
4. Existence / Team composition
5. Other:

Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (chamar para uma sessão de pitch)? - Potencial da ideia/projecto



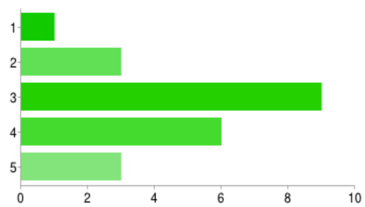
1	**0**	0%
2	**0**	0%
3	**2**	9%
4	**8**	36%
5	**12**	55%

Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (chamar para uma sessão de pitch)? - Já conheço o empreendedor ou veio devidamente referenciado por quem me encaminhou a oportunidade



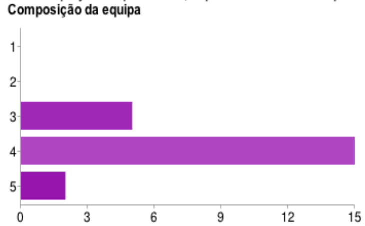
1	**1**	5%
2	**5**	23%
3	**7**	32%
4	**4**	18%
5	**5**	23%

Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (chamar para uma sessão de pitch)? - Qualidade do business plan e projecções financeiras



1	**1**	5%
2	**3**	14%
3	**9**	41%
4	**6**	27%
5	**3**	14%

Entre os projectos que recebe, o que considera mais importante de forma a considerá-lo para uma análise mais profunda (chamar para uma sessão de pitch)? - Existência / Composição da equipa



1	**0**	0%
2	**0**	0%
3	**5**	23%
4	**15**	68%
5	**2**	9%

4a – Quais são para si os critérios de avaliação mais importantes? (O que procura num projecto de forma a investir)? (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

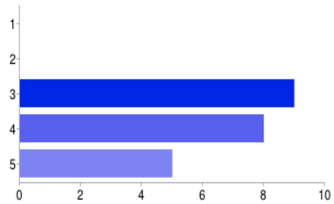
1. Confiança que tenho no empreendedor / Honestidade do empreendedor
2. Equipa de gestão
3. Entusiasmo e grau de compromisso do empreendedor
4. Potencial de saída do investimento (potencial liquidez)
5. Potencial de receitas
6. Conhecimento técnico do empreendedor

7. Potencial de crescimento do Mercado
8. ROI (retorno esperado do investimento)
9. Barreiras à entrada a potenciais concorrentes
10. O meu próprio conhecimento da indústria / sector
11. Concorrência no Mercado
12. Investimento requerido

4b – What are your selection criteria? What do you look for in an investment opportunity? (1 to 5: 1– Irrelevant; 5 – Relevant)

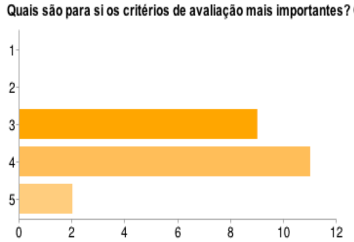
1. Trustworthiness / honesty of the entrepreneur (s)
2. Management team
3. Enthusiasm / commitment of the entrepreneur
4. Potential exit routes (potential liquidity)
5. Revenue potential
6. Domain expertise of the entrepreneur
7. Growth potential of the market
8. ROI (retorno on investment)
9. Barrier for entry for competitors
10. Your personal knowledge of the business/industry
11. Competition of market segment
12. Size of the investment

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Confiança que tenho no empreendedor / Honestidade do empreendedor



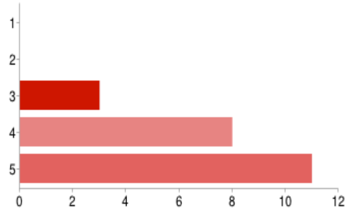
1	**0**	0%
2	**0**	0%
3	**9**	41%
4	**8**	36%
5	**5**	23%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Equipa de gestão



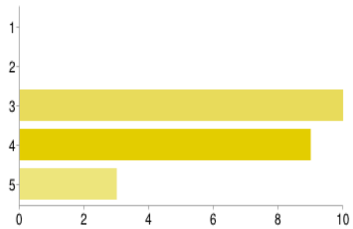
1	**0**	0%
2	**0**	0%
3	**9**	41%
4	**11**	50%
5	**2**	9%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Entusiasmo e grau de compromisso do empreendedor



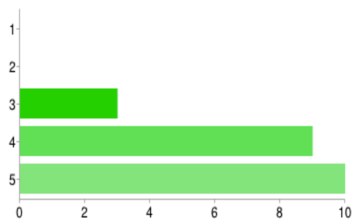
1	**0**	0%
2	**0**	0%
3	**3**	14%
4	**8**	36%
5	**11**	50%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Potencial de saída do investimento (potencial liquidez)



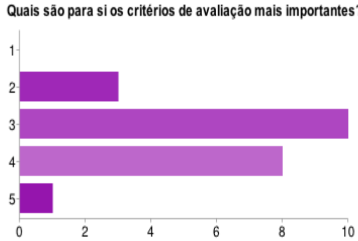
1	**0**	0%
2	**0**	0%
3	**10**	45%
4	**9**	41%
5	**3**	14%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Potencial de receitas



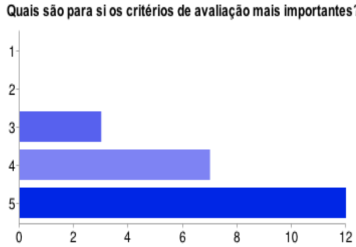
1	**0**	0%
2	**0**	0%
3	**3**	14%
4	**9**	41%
5	**10**	45%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Conhecimento técnico do empreendedor



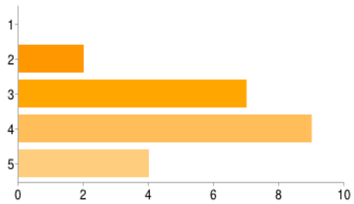
1	**0**	0%
2	**3**	14%
3	**10**	45%
4	**8**	36%
5	**1**	5%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Potencial de crescimento do mercado



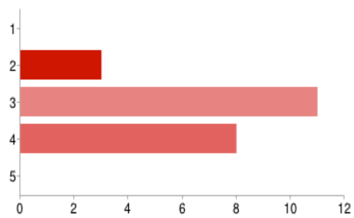
1	**0**	0%
2	**0**	0%
3	**3**	14%
4	**7**	32%
5	**12**	55%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - ROI (retorno esperado do investimento)



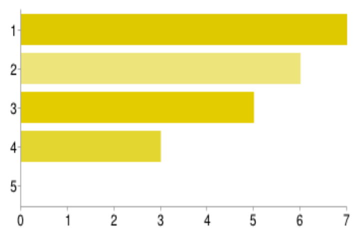
1	**0**	0%
2	**2**	9%
3	**7**	32%
4	**9**	41%
5	**4**	18%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Barreiras à entrada a potenciais concorrentes



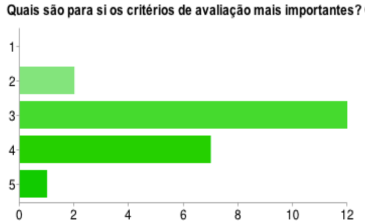
1	**0**	0%
2	**3**	14%
3	**11**	50%
4	**8**	36%
5	**0**	0%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - O meu próprio conhecimento da indústria / sector



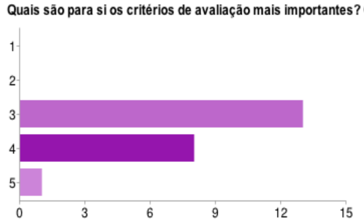
1	**7**	32%
2	**6**	27%
3	**5**	23%
4	**3**	14%
5	**0**	0%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Concorrência no mercado



1	**0**	0%
2	**2**	9%
3	**12**	55%
4	**7**	32%
5	**1**	5%

Quais são para si os critérios de avaliação mais importantes? O que procura num projecto de forma a investir? - Investimento requerido



1	**0**	0%
2	**0**	0%
3	**13**	59%
4	**8**	36%
5	**1**	5%

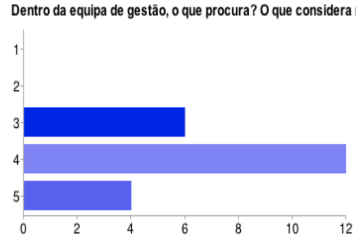
5a – O que procura dentro da equipa de gestão? O que considera mais relevante (Avaliar de 1 a 5: 1– Pouco relevante; 5 – Muito relevante)

1. Paixão da equipa
2. Persistência e capacidade de "sobrevivência" da equipa
3. Abertura da equipa a ser acompanhada por um mentor
4. Equipa possui skills complementares
5. Track record dos membros individuais da equipa

5b – What do you look for, within the management team? (1 to 5: 1– Irrelevant; 5 – Relevant)

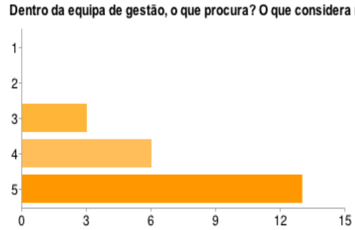
1. Passion of the team
2. Perceived sense of survivability of the team
3. Openess of team for mentoring (coachability)
4. How complementary the skills of the team are
5. Track record of individual team members

Dentro da equipa de gestão, o que procura? O que considera relevante? - Paixão da equipa



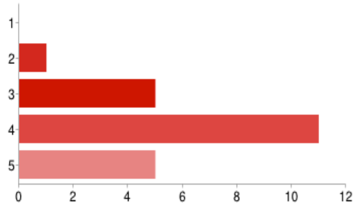
1	**0**	0%
2	**0**	0%
3	**6**	27%
4	**12**	55%
5	**4**	18%

Dentro da equipa de gestão, o que procura? O que considera relevante? - Persistência e capacidade de "sobrevivência" da equipa



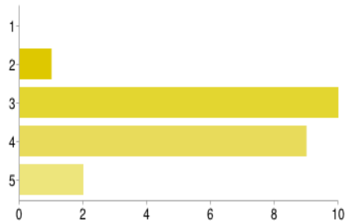
1	**0**	0%
2	**0**	0%
3	**3**	14%
4	**6**	27%
5	**13**	59%

Dentro da equipa de gestão, o que procura? O que considera relevante? - Abertura da equipa a serem acompanhados por um mentor (coachability da equipa)



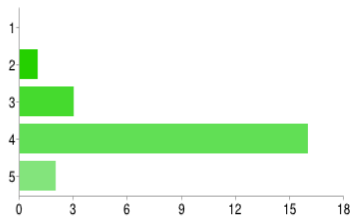
1	**0**	0%
2	**1**	5%
3	**5**	23%
4	**11**	50%
5	**5**	23%

Dentro da equipa de gestão, o que procura? O que considera relevante? - Equipa possui skills complementares (Ex: design, engenharia, gestão)



1	**0**	0%
2	**1**	5%
3	**10**	45%
4	**9**	41%
5	**2**	9%

Dentro da equipa de gestão, o que procura? O que considera relevante? - Track record dos membros individuais da equipa



1	**0**	0%
2	**1**	5%
3	**3**	14%
4	**16**	73%
5	**2**	9%

6a – Que informação considera mais importante levantar de forma a validar o investimento?

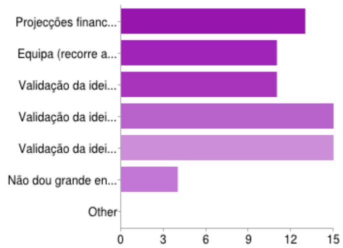
1. Projeções financeiras
2. Equipa (Recorre a LinkedIn, etc)
3. Validação da ideia junto de technical experts (Ex: Este projecto funciona?)
4. Validação da ideia junto de industry experts (Ex: Este projecto faz sentido?)
5. Validação da ideia junto de potenciais clientes (Ex: Compraria este produto?)
6. Não dou grande enfoque à due diligence – recorro ao instinto

6b – What information do you validate when performing due diligence?

1. Financial projectos
2. Team (LinkedIn, etc)
3. Idea validation – technical experts
4. Idea validation – industry experts
5. Idea validation – prospective clients

6. I don’t perform due diligence – I use my “gut feeling”

Que informação considera mais importante levantar de forma a validar o investimento?



Projecções financeiras	13	59%
Equipa (recorre a LinkedIn, referências, etc)	11	50%
Validação da ideia junto de technical experts (Ex: Este projecto funciona?)	11	50%
Validação da ideia junto de industry experts (Ex: Este projecto faz sentido?)	15	68%
Validação da ideia junto de potenciais clientes (Ex: Comprarias este produto?)	15	68%
Não dou grande enfoque à due diligence - recorro ao instinto	4	18%
Other	0	0%

People may select more than one checkbox, so percentages may add up to more than 100%.

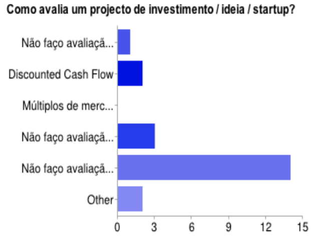
7a – Como avalia um projecto de investimento?

1. Não faço avaliação uma vez que é imprevisível neste stage de investimento
2. Discounted cash flow
3. Múltiplos de Mercado e de transacção de empresas semelhantes
4. Não faço avaliação de empresas: pré-estabeleço limites de investimento e só invisto se estiver dentro desses limites
5. Não faço avaliação da empresa: procure saber quais as necessidades de investimento da startup e negoceio a percentagem que isso significará
6. Outra:

7b – How do you evaluate a company / startup?

1. I don’t perform company valuation
2. Discounted cash flow
3. Market or transaction multiples
4. I don’t perform company valuation: I establish a valuation range, and will invest only if the company is valued within this range
5. I don’t perform company valuation: I try to understand the company funding needs to start operations and negotiate equity from there
6. Other:

Como avalia um projecto de investimento / ideia / startup?



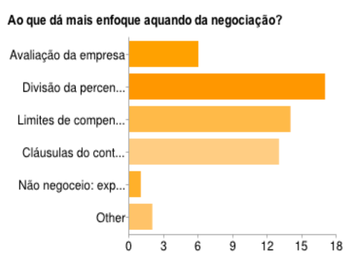
Não faço avaliação uma vez que é imprevisível neste stage de investimento	1	5%
Discounted Cash Flow	2	9%
Múltiplos de mercado e de transacção de empresas semelhantes	0	0%
Não faço avaliação da empresa: pré-estabeleço limites de investimento e só invisto se estiver dentro desses limites	3	14%
Não faço avaliação da empresa: procuro saber quais as necessidades de investimento da startup e negoceio a percentagem que isso significará	14	64%
Other	2	9%

8a – Ao que dá maior enfoque aquando da negociação?

1. Avaliação da empresa
2. Divisão de percentagem da empresa
3. Limites de compensação da equipa / empreendedor
4. Cláusulas do contracto
5. Não negoceio
6. Outra:

8b – What topics do you negotiate?

1. Company valuation
2. Equity percentage
3. Team / entrepreneur's compensation
4. Contract terms
5. I don't negotiate
6. Other:



Avaliação da empresa	6	27%
Divisão da percentagem da empresa	17	77%
Limites de compensação do empreendedor / equipa de gestão	14	64%
Cláusulas do contracto (anti-diluição, etc)	13	59%
Não negoceio: exponho os termos e aceita ou não	1	5%
Other	2	9%

People may select more than one checkbox, so percentages may add up to more than 100%.

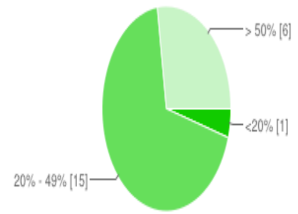
9a – Qual é a proporção da empresa alvo de investimento que preferencialmente procura deter?

1. < 20%
2. 20% - 49%
3. > 50%

9b – What is the equity block that you usually pursue?

1. < 20%
2. 20% - 49%
3. > 50%

Qual é a proporção da empresa alvo de investimento que preferencialmente procura deter?



<20%	1	5%
20% - 49%	15	68%
> 50%	6	27%

10a – Como estrutura o investimento? Quais das seguintes cláusulas inclui no contracto?

1. Inclui cláusula anti-diluição
2. Limites de compensação do empreendedor
3. Incentivos de performance
4. Mecanismos de controle
5. Protecção de saída
6. Não estruturo com este detalhe
7. Outra:

10b – How do you structure the deal terms?

1. Anti-dilution clausule
2. Team compensation limits
3. Performance incentives
4. Control mechanisms
5. Exit protection
6. I don't structure formally
7. Other:

Como estrutura o investimento? Quais das seguintes cláusulas inclui no contracto?

Incluo cláusula anti-diluição: numa posterior ronda de financiamento, a minha posição não poderá ser alvo de diluição	10	45%
Limites de compensação do empreendedor	13	59%
Incentivos de performance: Diluir a percentagem que detenho na empresa para o empreendedor, consoante objectivos de performance	20	91%
Mecanismos de controle: Requeiro Board seat / Voting rights	8	36%
Protecção de saída: Venda da empresa não pode ser feita sem o meu consentimento	18	82%
Não estruturo com este detalhe	0	0%
Other	1	5%

People may select more than one checkbox, so percentages may add up to more than 100%.

11a – Como acompanha e suporta os investimentos?

1. Disponho apenas o meu conhecimento técnico de forma a desenvolver o produto / serviço
2. Apenas monitorizo o investimento, através de acesso às contas e necessidade da minha autorização, não participando na gestão diária da empresa
3. Disponibilizo rede de contactos de forma a captar clientes, potenciais co-investidores e equipa de gestão, e intervenho nas decisões estratégicas da empresa, prestando coaching à equipa
4. Faço parte da gestão diária da empresa, dispondo de contactos, conhecimento técnico, actuando como mentor e consultor
5. Não faço qualquer acompanhamento
6. Outra

11b – How do you support your investments?

1. I will provide my technical expertise
2. Only by monitoring the investment
3. I will use my own network to help raise the company: attract customers, co-investors, top management team and will intervene only in the firm's strategic decisions, acting as a coach
4. I'm part of the company's management team, helping with my network, acting as a consultant, technical expertise, mentor and consultant
5. I'm a passive investor
6. Other

Disponho apenas o meu conhecimento técnico de forma a desenvolver o produto/serviço	1	5%
Apenas monitorizo o investimento, através de acesso às contas e necessidade da minha autorização, não participando na gestão diária da empresa	3	14%
Disponibilizo rede de contactos de forma a captar clientes, potenciais co-investidores e equipa de gestão, e intervenho nas decisões estratégicas da empresa, prestando coaching à equipa	16	73%
Faço parte da gestão diária da empresa, dispondo contactos, conhecimento técnico, actuando como mentor e consultor	12	55%
Não faço qualquer acompanhamento	0	0%
Other	0	0%

People may select more than one checkbox, so percentages may add up to more than 100%.

12a – Históricamente, como foram as saídas dos investimentos? (Diga quantas saídas teve em cada uma das seguintes opções)

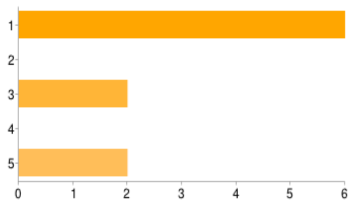
1. Fusão ou aquisição: Vendido a um fundo de venture capital, private equity ou a um player da indústria
2. Recompra de acções por parte da equipa de gestão
3. IPO (entrada em bolsa)

4. Perda total de investimento

12b – Historically, how have you exited your investments?

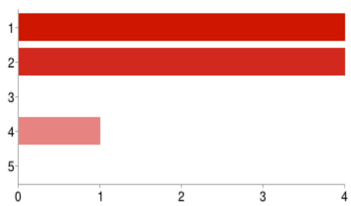
1. M&A: Financial or strategic trade sale
2. Management buy-out
3. IPO (Initial Public Offering)
4. Total loss

Históricamente, como foram as saídas dos investimentos? - Fusão ou Aquisição: Vendido a um fundo de Venture Capital, Private Equity ou a um player da indústria



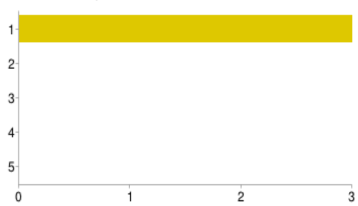
1	6	27%
2	0	0%
3	2	9%
4	0	0%
5	2	9%

Históricamente, como foram as saídas dos investimentos? - Recompra de acções por parte da equipa de gestão



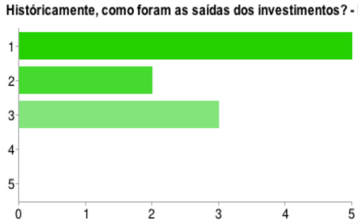
1	4	18%
2	4	18%
3	0	0%
4	1	5%
5	0	0%

Históricamente, como foram as saídas dos investimentos? - IPO (entrada em bolsa)



1	3	14%
2	0	0%
3	0	0%
4	0	0%
5	0	0%

Históricamente, como foram as saídas dos investimentos? - Perda total de investimento



1	5	23%
2	2	9%
3	3	14%
4	0	0%
5	0	0%

13a – Qual a taxa de retorno médio que obteve históricamente?

1. < 0%
2. 1% - 10%
3. 11% - 18%
4. 19% - 28%
5. > 29%

13b – What is your historic average return as an angel investor?

1. < 0%
2. 1% - 10%
3. 11% - 18%
4. 19% - 28%
5. > 29%

Qual a taxa de retorno médio que obteve historicamente?

< 0%	3	14%
1% - 10%	4	18%
11% - 18%	9	41%
19% - 28%	2	9%
> 29%	1	5%

14a – Qual o horizonte temporal esperado para manter uma empresa em portfolio?

1. Até 3 anos
2. Entre 3 a 5 anos
3. Mais de 5 anos
4. Não considero o horizonte temporal esperado relevante

14b – What is your expected holding period, once you perform an invesment?

1. Up to 3 years
2. Between 3 to 5 years
3. More than 5 anos
4. Not relevant

Qual o horizonte temporal esperado para manter uma empresa em portfólio?

Até 3 anos	6	27%
3 a 5 anos	9	41%
Mais de 5 anos	5	23%
Não considero o horizonte temporal esperado relevante	2	9%