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**Article**

## Why do business angels invest? Uncovering angels' goals

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## MANAGEMENT | RESEARCH ARTICLE

# Why do business angels invest? Uncovering angels' goals

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**Abstract:** Despite the increasing importance of business angels (BAs) as crucial players in the growth of high-potential early-stage startups, their motivations are not fully understood. Many of the perceptions of BAs deviate significantly from more conventional views of conventional economic and financial models. To gain a comprehensive understanding of BAs' goals, qualitative techniques from marketing and consumer behaviour as additional lenses (including laddering and means-ends chains) were employed to allow currently active BAs to articulate their goals in ways that forced-choice, quantitative methods do not achieve. Additionally, to determine if entrepreneurs perceive BAs in the same way BAs see themselves, entrepreneurs were asked to provide their perspectives on why BAs choose to become angel investors, based on their experiences with BAs. The findings reveal that traditional financial viewpoints do not adequately capture the depth and driving force behind BAs' goals, while entrepreneurs appear to be overly influenced by conventional assumptions about these goals. The study also provides valuable insights into the relationships and hierarchy among BAs' goals, and on the relevance of each goal. The paper ends with reflections on the practical implications of this research for BAs, entrepreneurs and policymakers.



Rui Falcão

### ABOUT THE AUTHORS

Rui Falcao is a passionate angel investor, co-founder and managing partner of COREangels and REDangels, the leading angel groups in Portugal. Rui is a serial entrepreneur of the internet booming days, participating as entrepreneur and angel investor in more than 20 startups in technologies and communications sector. Rui has a PhD on Marketing and Strategy from the University of Aveiro (UA), Portugal. Maria João Carneiro is Assistant Professor of Tourism at the University of Aveiro. She holds a Degree in Tourism Management and Planning from UA, an MBA from New University of Lisbon and a PhD in Tourism from UA. She is the Director of the degree program (licenciatura) in Tourism of the UA. António Carrizo Moreira is an Associate Professor with Habilitation at DEGEIT, University of Aveiro, Portugal. António holds an MBA from Porto Business School. He holds a Ph.D. in Management from the University of Manchester, England.

### PUBLIC INTEREST STATEMENT

Business angels are a special kind of investors, normally previous entrepreneurs or experienced managers, that put their time and money to support promising but risky startups from their very early stage. Statistically, most of their investments fail and only a few compensate for all the losses. Understood generally as “money makers”, the reasons why business angels invest and back entrepreneurs go further the obtention of financial gains. This paper explores consumer behaviour techniques to uncover the real reasons why business angels invest, finding behind the economic reasons there are emotional, symbolic and entrepreneurial goals higher in relevance than the economic ones. Some of the explanations are related to a holistic view of the angel investor and the growing importance of alignment of professional and life goals that guarantee deeper and long-term satisfaction on their entrepreneurial investing journey.

**Subjects: Business & Policy; Entrepreneurship**

**Keywords: angel goals; business angel identity; investor goals; entrepreneur; self-development**

### 1. Introduction

Business angels (BAs), consistently defined as high net-worth individuals who invest their own money along with mentoring, networking and expertise in startups with no family connection, in the expectation of financial gain (Mason, 2006), are widely recognised as the main contributors in financing early-stage startups (EBAN, 2019). In the funding process, BAs are a group somewhere between crowdfunding and venture capital concerning the amount of money invested (higher than crowdfunders and lower than venture capitalists (VCs)) and, to some extent, the stage of the start-up development (they invest in earlier stages than venture capitalists, similarly to crowdfunders) (Grundy & Ohmer, 2016), helping startups to overcome the difficult period of validation, sometimes referred to as the “death valley” (Morales-Alonso et al., 2020). In contrast with VCs and crowdfunders, angels involve themselves directly with the entrepreneurs and invested startups to create value (Linde & Prasad, 2000; Mason & Botelho, 2014; Politis, 2008; Ramadani, 2012).

The angel profile and motivations were mainly researched in the first generation of angel studies in the early 1980s and 1990s, being revisited from time to time in the following decades (e. Benjamin & Margulis, 2005; Freear et al., 1994; Tenca et al., 2018). Perspectives on BAs’ goals have varied from more restrictive and financial ones (e.g. Hill & Power, 2002; Morrissette, 2007), to broader behavioural and holistic perspectives (e.g. Baker & Ricciardi, 2014; Bonnet et al., 2022; Croce et al., 2020; Pompian, 2006, 2012; Puustinen et al., 2013). Moreover, the circumstances in which BAs and the angel market operate have also changed dramatically in recent years (Harrison & Mason, 2019; Mason et al., 2016) with new group investment approaches and the democratisation hype of the investing process (Mollick & Robb, 2016; Townsend & Hunt, 2019), as well as the appearance of new players such as those related to crowdfunding in the early stage investing arena (Block et al., 2018; Islam et al., 2020). All these changes justify revisiting angel goals, to obtain a current, more holistic view of this field, using consumer behaviour and marketing as new lenses of analysis. Despite all the work done on the angel profile and motivations, empirical research on BAs’ goals is still scarce. The research undertaken on perceived investment value (Puustinen et al., 2013), which could also provide some insights into BAs’ goals, was developed for stock exchange investors, whose characteristics are distinct from those of angel investors.

Regarding methodology, most studies on BAs’ motivations adopt quantitative approaches such as survey questionnaires, which are greatly influenced by researchers’ perspectives and lead to BAs’ forced choices based on a set of predetermined goals. This prevents researchers and society as a whole from gaining a broader and deeper view of BAs’ personal motivations and goals (Farrell, 2005; Morrissette, 2006). The only two studies found to adopt qualitative approaches (Farrell, 2005; S. Shane, 2005) were based on interviews and focus groups. Although these techniques allow greater exploration of BAs’ goals than quantitative studies, they do not reveal the main goals that guide BAs. Previous research refers mainly to general motivations, discarding specific personal goals and how those goals are related to each other, and their relative importance. Nevertheless, theories such as the laddering theory (Pieters et al., 1995; Reynolds & Gutman, 1988), grounded on means-end chain theory, initially proposed to uncover information such as links between consumers’ personal values and attributes of products or services (e.g., Grunert & Valli, 2001; Pike, 2011), have already been applied to examine goal-directed behaviour, especially to uncover hierarchies between abstract and concrete goals (Bagozzi & Edwards, 1998). These theories, some approaches underlying them, and some techniques used to assess the centrality of nodes in the hierarchy algorithm (e.g. Bonacich, 1987, 2007; Freeman, 1978), could reveal a hierarchy among BAs’ goals and thus understanding of how each goal may contribute to satisfying others and identifying these goals’ centrality and relevance.

This study seeks to fill the research gaps previously identified, and more specifically, to answer the following research questions: What drives individuals to become angel investors? How can angel goals be hierarchically organized? What are the most relevant angel goals?

This study is anchored by goal-directed behaviour, laddering theory and perceived investment value (Bagozzi & Edwards, 1998; Puustinen et al., 2013; Reynolds & Gutman, 1988). More specifically, the uniqueness of the present research lies in creating a new analytical framework to reveal the hierarchy and relevance of BAs' goals, showing their interrelationships and levels of abstraction, also identifying short-term versus long-term goals (Austin & Vancouver, 1996; Pieters et al., 1995).

This paper makes important theoretical contributions. It provides a framework to categorise the diverse goals of BAs and offers an overview of the importance of goals and the relationship between them, considering the perspectives of BAs and entrepreneurs. It also provides relevant managerial implications, namely greater understanding of angel goals and how they can be achieved. Moreover, policy implications for different stakeholders of the entrepreneurial system are revealed.

## 2. Literature review on angels' goals

### 2.1. The financial perspective

Two different streams of thought have dominated perspectives of the goals of angel investing: the financial and behavioural perspectives. On one hand, grounded on microeconomic and standard finance theories (Fama, 1970; Markowitz, 1952; Persky, 1995), the rational economic perspective advocates that investor decisions are based on the rational trade-off between risk and profit (Keynes, 1955; Persky, 1995). Consequently, according to these theories, the primary goal of angel investors is to earn money (e.g., Baty, 1963; Morrissette, 2007; Murnieks & Mosakowski, 2007; Riding, 2008; Van Osnabrugge, 1998).

Based on the traditional finance stream, a substantial part of the angel literature points out the economic goals of angel investors such as: (i) opportunity for high capital appreciation (e.g. Baty, 1963; Hill & Power, 2002; Linde & Prasad, 2000; Morrissette, 2007; Murnieks & Mosakowski, 2007); (ii) acquisition of new clients for their other companies (Baty, 1963; Linde & Prasad, 2000); (iii) participation in a growing business that will have a great impact (the next big thing) (Benjamin & Margulis, 2005); or (iv) to exploit technologies that promise capital growth (Baty, 1963). The angel literature has many references to BAs' motivations, with economic goals being considered the most common reasons for angel investing (Croce et al., 2020; Morrissette, 2007).

### 2.2. The behavioural perspective

In contrast to the financial perspective, the behavioural perspective considers the contributions of other social sciences, such as anthropology, sociology and psychology, also providing insights into investor choice theory. Investor decision-making can be motivated by feelings of greed and fear (Redhead, 2008) and embedded with common biases such as optimism, overconfidence and false consensus (N. C. Barberis & Thaler, 2003; Thaler, 2000). Kahneman and Tversky (1979, 2013) argue that investment valuations are based on a subjective perception of value. This investor feeling, difficult to reconcile with pure rationality, has been incorporated in some investment models (N. Barberis et al., 1998; Shleifer, 2000). Sullivan and Miller (1996) identified three groups of informal investors, with two groups—hedonistic and altruistic investors—representing, jointly, slightly more than economic investors.

Supported by behavioural and experiential arguments, some angel research suggests that economic goals may not be the most important (Hill & Power, 2002). According to Freear et al. (1995), 50% of BAs accept lower financial returns because part of their income is considered to be a psychological return. Some research highlights that non-economic factors are important drivers for a considerable number of BAs (Croce et al., 2020). Those motivations include: co-investing,

socialising and learning from more experienced angels (Bonnet et al., 2022); the inherent status of the BA condition (Mulcahy, 2005); improving public recognition (Benjamin & Margulis, 2005); supporting the local community to praise political forces (S. A. Shane, 2009); the joy of giving back to society and boost local economic development (Bonnet et al., 2022; Rose, 2014); supporting a socially beneficial product (Morrissette, 2007; Sullivan, 1991); and helping young entrepreneurs (Hill & Power, 2002; Morrissette, 2007).

Living the experience of supporting and developing a startup has been recognised as a fundamental motive to become a BA (Fili & Grünberg, 2016; Ramadani, 2012; Rose, 2014). Researchers argue that BAs and also entrepreneurs, besides financial gains, have other hidden or less obvious motives to invest, including fulfilment, fun, excitement, pride, desire to contribute and obtain personal recognition (Benjamin & Margulis, 2005; Murnieks et al., 2020; Rose, 2014; S. A. Shane, 2009). The last decades witnessed a new, growing community of BAs (impact investors) who are predominantly intrinsically motivated to finance projects that answer social and environmental challenges and generate significant changes with high impact worldwide (OECD, 2011).

The literature also recognises that BAs invest through passion (Croce et al., 2020) to obtain emotional outcomes including: fun from participating in attractive investments (Brettel, 2003; Landstrom, 1993); excitement of being connected to new venture startups (Linde & Prasad, 2000); and adrenaline and stimulation resulting from risk-taking (Freear et al., 2002).

Other motivations capture the entrepreneurial value of BA activity, namely: the enjoyment of being involved with young entrepreneurs, nurturing their development (Rose, 2014); the gratification from having an active role in a startup (Mason, 2006; Van Osnabrugge, 1998); and the pleasure of repeating an exit or success story already achieved by the BA as a previous entrepreneur (Benjamin & Margulis, 2005). The BA literature advocates that BAs are a different and special class of investors with a strong entrepreneurial orientation, expecting to obtain entrepreneurial value in the exercise of their BA activity (e.g. Politis & Landstrom, 2002). According to Mason (2008), BAs have unique characteristics, since they invest their own money and do not manage others' money like venture capitalists (VCs), reveal high-risk capacity by investing in early-stage startups, and get involved with the startups in question. It is also stated that many BAs have startup experience (Brettel, 2003; Gaston, 1989; Landstrom, 1993), viewing themselves as entrepreneurs, "co-creators" and "co-founders" of new ventures, rather than purely financial investors (Fili & Grünberg, 2016).

This behavioural and experiential stream of thought suggests that standard assumptions and narratives about BAs, confined to economic goals, are incomplete or mistaken, and may prevent both the effectiveness of BAs' activity and BAs' opportunity of living a full angel experience. The assumptions behind financial perspectives rest on how angels as rational investors ought to behave, while the behavioural perspective assumes there are limitations to rationality. Experience, emotions and uncertainty may play an important role in framing angel goals. The types of goals previously identified are aligned with personal values and objectives, but there is a lack of research on how important these goals are, and whether they are long or short-term oriented. Although both rational and behavioural perspectives make positive contributions, they lack a deep integrative and holistic view of the purpose and goals that drive BA investors.

### **2.3. The holistic perspective**

In recent years, some investing literature suggests a holistic view of investor behaviour, supported by: new approaches to behavioural finance (Baker & Ricciardi, 2014; Pompian, 2006, 2012); perceived investment value (Puustinen et al., 2013); and the expected investment value (Lounio, 2014). These new approaches go beyond the traditional financial theories grounded on the rational trade-off between risk and profit (Fama, 1970; Markowitz, 1952). They are grounded in psychology, sociology, marketing and consumer behaviour, the literature suggesting that investors evaluate

investment opportunities based on holistic perspectives that include the investing experience, personal values and affect, which go well beyond the utilitarian and rational perspectives (Aspara & Tikkanen, 2011; Beal et al., 2005; Fama & French, 2007; Pasewark & Riley, 2010; Puustinen et al., 2012, 2013). In general, investors like to perceive themselves as rational beings, driven by purely financial data (Hoffmann & Fieseler, 2012); however, the reality of their investing reasons is quite different (Dorn & Sengmueller, 2009).

Investment literature compares the diversity of investor goals to a huge emotional iceberg (Peterson & Murtha, 2010), recognising that there are several hidden motivations and goals behind the most visible ones. Making money is “the tip of an emotional iceberg, the most visible and readily comprehensible portion of a much deeper mass of needs, desires, and motivations that lie below the surface” (Peterson & Murtha, 2010, p. 27).

A substantial stream of literature relating marketing and finance has been produced, confirming that the type of research methods used to reveal hidden consumer goals in consumption (Khalifa, 2004) are equally appropriate to uncover the multiple investor goals in the investment context (Allen & McGoun, 2001; Canova et al., 2005; Huvaj, 2020; Pasewark & Riley, 2010). The perspective underlying this stream of the literature suggests that the perception of investment value, like in consumption, goes beyond the utility of a product or a service, encompassing a meaningful interactive and emotional experience that responds to higher personal goals (Aspara & Tikkanen, 2011; Pasewark & Riley, 2010; Puustinen et al., 2013). In this context, a goal is understood as a cognitive representation of the desired end state, including a variety of objects, plans, mental images, emotions and behaviours toward which actions may be directed (Pervin, 1989; Touré-Tillery & Fishbach, 2011). Goals are closely related to motivations but are different from them. Motivation has been defined as the intensity of desire and effort put into the process of goal pursuit (Touré-Tillery & Fishbach, 2011), which might be intrinsic—reflecting the inherent benefits of pursuing a goal—or extrinsic—when associated with the process of achieving a goal (Ryan & Deci, 2000). Goal-directed behaviour, with different hierarchical levels of goals, is the essential motivator linking entrepreneurial intention and action (Carsrud & Brannback, 2011; Kirkley, 2016).

#### **2.4. The hierarchical structure of goals**

Goal-directed behaviour (Bagozzi & Edwards, 1998) and laddering theories (Pieters et al., 1995; Reynolds & Gutman, 1988) are the fundamental theoretical grounding of the present research. Goal-directed behaviour uses cognitive representations to build goal hierarchies relating superordinate abstract goals fulfilled by other focal and concrete goals (Bagozzi & Edwards, 1998). Laddering theory emerges as an adequate practical mechanism (the chain of why questions) that operationalizes the identification of goals, particularly to uncover some goals that may be not so obvious in the mind (Gutman, 1997). Reynolds and Gutman (1988) contend that conventional research methodologies often yield superficial responses and fail to uncover the underlying motivations behind certain behaviours, particularly in sensitive domains. For instance, when purchasing a Porsche, a consumer’s primary objective may not simply be the utilitarian purpose of transportation, but rather the desire to attain the esteemed status associated with owning a Porsche (i.e., a high-level status goal).

The same approach can be applied in the investment area to facilitate better understanding of the goals as the underlying reasons for investors investing in certain products such as “stock market” or “startups”.

Likewise, the realm of angel investing can be considered a sensitive area due to various factors. Angels are difficult to identify and measure, possess access to confidential information, and often choose not to disclose their financial outcomes (Edelman et al., 2017; Landstrom & Mason, 2016).

The comparative research on angel goals is particularly relevant in terms of the practical implications of goal alignment in the angel-entrepreneur relationship. As previously reported, there is no clear

understanding in entrepreneurship theory and practice about the goals behind angel investing. Similarly, entrepreneurs may also have a different perception, or even a misconception of the hierarchy of angel goals, and consequently, may not behave in alignment with angel goal expectations. Additionally, how individuals (angels) are perceived by their counterparts (entrepreneurs) is also important as feedback for their self-identity validation (Burke, 2016; Burke & Stets, 2009; Riley & Burke, 1995). The way angels are perceived by entrepreneurs affects the behaviour of both entrepreneurs and angels. Mutual knowledge of each party's real goals and expectations is critical to creating an aligned view of common goals, without frustrating important individual ones, contributing to building a satisfactory and stewarding relationship between angels and entrepreneurs, and reducing the likelihood of future conflicts (Collewaert, 2010, 2012; Collewaert & Manigart, 2016). If entrepreneurs have a different, misaligned, or wrong perspective of who angels are and what they want, the angel relationship and interaction can be disappointing for both parties and the angel experience will be frustrating.

This angel literature review reveals that, despite a complete enumeration of dozens of motives and reasons for angel investing during the last decades (Tenca et al., 2018), there is no framework addressing the different categories of angel investor goals. Empirical research on BAs' motivations has not yet provided an organised and detailed holistic view of BAs' goals. Despite angel literature enumerating multiple and diverse goals, no empirical research or instrument was found specifically on organising angel goals in terms of content, hierarchy and temporal process. Moreover, nothing is said about each goal's importance and level of abstractness, or its relation with and contribution to other goals. Therefore, it seems appropriate to use powerful approaches and techniques based on goal-directed behaviour, laddering theory, and perceived investment value to organise and uncover angel goals that may not be visible with other methods of analysis.

### 3. Materials and methods

As mentioned above, this research intends to provide deeper understanding of why angels invest, uncovering the invisible part of the iceberg of BAs' goals, understanding their importance and hierarchy, as well as the relationships between them. The research procedure uses the laddering technique, which refers to an in-depth one-on-one interviewing technique (asking why is that important to you?) (Reynolds & Gutman, 1988) and the means-end chain, defined as a hierarchy of goals (Gutman, 1982, 1997). Instead of the traditional laddering model based on a face-to-face interview, and following the research of Puustinen et al. (2012) which adopted the approach of Bagozzi and Edwards (1998), this study applies the model similarly in the form of questions with written open answers, ensuring the richness and diversity captured by qualitative methods. This approach offers considerable efficiency in terms of timesaving by making more observations in a shorter period. Initially, these techniques were proposed to uncover relevant personal information about the consumer, particularly to understand the cognitive linkages between product or service attributes, consequences of the acquisition/experience and personal values (e.g., Grunert & Valli, 2001; Pike, 2011). However, they were applied successfully in other domains, some related to investing, namely: to uncover the reasons for individual savings (Canova et al., 2005); to analyse the hierarchical cognitive structure of entrepreneur motivation toward private equity financing (Morandin et al., 2006); to develop the perceived value concept for stock exchange investments (Puustinen et al., 2013); and to identify the company attributes that are important for investors' preferences (Schiefelbein, 2016). The major advantage of the combined approach of the laddering technique and the mean-ends method is that they reveal the holistic and hierarchical perspective of individual goals, and at the same time, provide guidance for future action. Creating meaningful mental maps, they perform a more contemporary approach to classical motivation research, stimulating participants to reflect upon their behaviour in a broader way, disconnected from their usual context (Malhotra et al., 2017).

A convenience sample was used to gather information from BAs and entrepreneurs. An open-ended questionnaire was administered to 53 BAs and 35 entrepreneurs who attended a full-day interaction event of REDangels, the largest structured BA group in Portugal.



The BAs and entrepreneurs already knew each other and had an investor-investee relationship lasting between three months and four years. The event was chosen as it involved a varied sample of BAs and entrepreneurs. The event was programmed to be a full day of ice-breaking and adding value in comfortable hotel premises to facilitate and inspire the maximum one-on-one interaction between entrepreneurs and angels. The open-ended questionnaire was explained and contextualised by the REDangels' leader, and distributed on paper to all the participants. Before answering the questionnaire, the respondents were informed about the main objective of the study and were asked for consent for participating in the research.

### **3.1. Data collection methodology**

The business angel respondents came from six European countries (Portugal, Netherlands, Germany, France, Italy, Denmark), were aged from 26 to 68 years old, with different levels of angel experience varying from one to 15 years, and all invest in their own country and abroad as shown in Table 1.

The same questionnaire, with minor modifications, was also distributed to 35 entrepreneurs (17% female) aged from 19 to 35, with a bachelor's degree or more, with limited entrepreneurial experience (from 0–6 years) and from three European countries. Data were collected using a laddering self-administered questionnaire in April 2018 (Appendix 1), as carried out by Puustinen et al. (2012), instead of using the traditional laddering face-to-face interview of Canova et al. (2005) and Bagozzi and Edwards (1998). The questionnaire was pilot tested previously with a small group of three BAs. Each BA was asked to identify the four main reasons why it is important for them to be a BA, writing these reasons in the boxes of the first row, at the bottom of the page. Then, each BA should write, in a second row, for each reason, why that reason is important for them, and continue to answer in the same way in the subsequent rows, for each reason, until reaching the fifth level, or a level of abstractness that prevented them to continue. This created a network of goals directly linked to each other. Entrepreneurs were invited to fill in the questionnaire thinking about the specific BAs they have a relationship with and reporting the reasons they think motivate those BAs to be BAs. Thereafter, the procedure was similar to the one followed by the BAs, configuring two independent data sets of respondents. These data let us maintain a separate analysis of each group and simultaneously establish a comparison between the results of the two groups. The questionnaires were written in English since this is the official language of the angel group for interaction and documentation, and also the common language used by angels and entrepreneurs in other entrepreneurial contexts.

### **3.2. Data analysis methodology**

The hierarchy of BAs' goals followed the coding process described in Grunert et al. (2001) and was applied successfully in the investment area by Puustinen et al. (2012). The categories used to classify the goals were identified based on the literature reviewed and some of them emerged from the discourses of BAs and entrepreneurs participating in the study. To analyse the content, different codes were created to reflect what was written and to make it possible to interrelate the codes. The process included several iterative reviews until a final categorised set of terms was considered satisfactory. To increase face validity, as suggested by Hardesty and Bearden (2004), an external expert advisor—the President of FNABA (Portuguese Business Angel Federation), an associate of EBAN (European Business Angels Network), was asked to validate the categories, namely: (i) to evaluate the adequacy of the proposed categories of goals; (ii) to code the terms for those categories; (iii) and to validate the adequacy of each code for the common terms used in the BAs' vocabulary.

An example of the coding process is described next: “Inspiring experience” (goal referred to) → “stay informed about new developments” (first reason mentioned for achieving the goal) → “to have challenging experiences” (n14) → “to keep updated” (n26) → “to learn” (n2) (last reason mentioned for achieving the goal). The final coded sequence of the initial phrase resulted numerically in the sequence 14 → 26 → 2, which afterwards was reflected in the mindmap. As such, there is a relation

between node 14 (origin) and node 26 (destiny) and another relation between node 26 (origin) and node 2 (destiny).

After the coding process, the two data sets—corresponding to the perspectives of BAs and entrepreneurs—were inspected using social network analysis to examine the level of abstractness and the centrality of the goals. Two mind maps of BAs' goals (proposed by the BAs and entrepreneurs) were created in the form of an implication matrix.

The purpose of the implication matrix is to determine the dominant pathways and connections between the goals in the overall map of aggregate relations (Grunert et al., 2001). The implication matrix is a square matrix whose size is defined by the number of elements to be mapped. In this case, 40 salient goals will result in a matrix of forty rows and forty columns. The number in each cell represents the number of times a goal of a row (goes OUT) leads to another goal in a column (comes IN). The goals with zero INs and fewer than two OUTs were ignored, due to low representativeness. The BA goal implication matrixes are provided in Appendixes 2 and 3 and will be interpreted in the analysis and discussion of the results section.

After creating the matrix, each goal's level of abstractness was calculated according to the formula:  $\text{in degrees}/(\text{in degrees} + \text{out degrees})$ . The in-degrees show how often a goal is the object or end of a relation, whereas the out-degrees indicate how often a goal is a source or origin. A goal's level of abstraction helps to identify the goal in the value hierarchy, going from a concrete level of specific action to a more abstract level of values and motives (Pieters et al., 1995). According to goal-directed theory (Austin & Vancouver, 1996; Bagozzi & Edwards, 1998), the higher a goal's level of abstractness, the higher the potential to be a long-term goal, and an end value itself. In contrast, the lower the node's abstractness, the greater the possibility of it representing a concrete and short-term goal leading into action (Austin & Vancouver, 1996; Brunsø et al., 2004; Carsrud & Brannback, 2011).

Gephi software was used to obtain a graphic visualization of the mindmap tables and to provide easy comprehension and visualisation of the BAs' goals (nodes), their relationships and their centrality. Node centrality is one of the most researched concepts in social networks, the purpose being to rank the nodes according to their importance in the network (Borgatti, 2005). Gephi can run several algorithms of analysis including Degree centrality and PageRank. The Degree centrality algorithm (Freeman, 1978), measured by the number of direct ties incident upon only one node, assumes that the greater the number of adjacent nodes, the greater the influence. It is an appropriate measurement for the immediate, short-term and direct influence of the nodes ignoring the global network structure (Borgatti, 2005; Yang et al., 2017). In contrast, the PageRank algorithm, grounded on eigenvector centrality, measures the long-term importance of a node according to the importance of all the nodes related directly and indirectly to that node, throughout the whole network (Bonacich, 1987, 2007).

The 88 respondents identified a total of 888 goals as underlying reasons for being BAs (BAs proposed 465 goals and entrepreneurs identified 401), with an average of 10.09 goals per respondent. Five single goals were discarded since they were not understood or did not fit conceptual definitions of goals, resulting in a final set of 883 goals. The goals were categorised into 40 categories corresponding to 40 salient goals, which were classified into five high-level meta-goals: economic, functional, emotional, symbolic and entrepreneurial (as detailed in Table 2). Symbolic and entrepreneurial goals emerge as the most cited goals, with 357 and 266 references, respectively. The high number of angel goals related to the entrepreneurial world, such as “to be part of entrepreneurship”, “to help startups grow”, and “to support innovation”, confirm BAs are a special class of investors for whom direct involvement with entrepreneurship plays a critical role. Indeed, angels value direct, personal involvement with the entrepreneurial experience (Hoyos-Iruarrizaga et al., 2017), which cannot be carried out in other investment typologies, such as venture capital, stock market or even crowdfunding.

Analysis of the centrality of goals reveals that BAs and entrepreneurs' perspectives are somewhat different. While BAs consider their two most relevant goals are “to develop oneself” (BAW(g) = 100) and “to support innovation” (BAW(g) = 94), entrepreneurs believe that BAs' central goals are “to improve one's self-esteem” (Ew(g) = 100) and “to make money” (Ew(g) = 100) (Tables 3 and 5). It is quite interesting to verify that the most relevant goal for BAs is symbolic and connected with the process of developing oneself. This result highlights the importance of the present research by using a new technique of analysis to uncover and rank the “real” angel goals and propose a consistent hierarchy.

Since one of the aims of this study is to examine whether BAs and entrepreneurs have different perspectives of BAs' goals, the analyses were carried out separately for each group. The hierarchy of goals emerged examining the level of abstractness of goals based on the information provided by BAs and entrepreneurs (see the implication matrixes in Appendixes 2 and 3). This analysis identified two types of goals: (i) abstract and long-term goals; and (ii) concrete, short-term goals (Carsrud & Brannback, 2011). The abstractness analysis was undertaken by studying the centrality of goals in each network (see Tables 3 to 6).

Tables 3 and 4 present in more detail the goal ranking according to the centrality of goals, calculated through the weighted Degree W(g) and PageRank PR(g) algorithms. Data regarding centrality were transformed into a scale from zero to one hundred to facilitate interpretation. A summary of the 10 goals with the highest centrality in the view of BAs and entrepreneurs is presented in Tables 5 and 6.

Tables 3 and 4 reveal a wide variety of goals motivating people to become BAs, besides the economic ones. The variety is especially noted in emotional, symbolic and entrepreneurial goals.

### 3.2.1. Emotional goals

The category of emotional goals comprises sub-goals such as “to be happy”, “to have challenging experiences”, “to socialise with great people” and “to have fun”. Emotional goals are moderately ranked and understood similarly by BAs and entrepreneurs. There is one clear exception with “to be active”, considered more relevant by the BAs (BAW(g) = 50) than by the entrepreneurs (Ew(g) = 20) (Tables 3 and 4). The angel literature already suggested “to be active” is an important goal for BAs. Researchers state that apart from a few cases in which BAs are not involved because they lack the time (Mason & Harrison, 2002), have no inclination (Hill & Power, 2002) or knowledge to contribute (McKaskill, 2009a), the majority of BAs expect to play an active role in the invested startups (Fili, 2014). According to the literature, playing an active role is also a primary motivation for one-third of BAs (Morrissette, 2006), and is considered the driving force behind angel investors (Politis & Landstrom, 2002). Perhaps entrepreneurs understand that an active BA role may, in some

**Table 1. Business angels' demographics**

	<b>Sample of this study (REDangels)</b>	<b>Global angel demographics*</b>
Gender	6% female	Predominantly male (<20% females in Europe)
Age (average)	48	Middle-aged
Business experience	90% are business owners or board members	High investing or business experience
Invested amount per angel (average)	\$35,000	\$25,000–\$50,000
Education	95% have a Bachelor's degree or more	Well educated
Country of residence	Europe (six countries)	Worldwide

Notes: \*Based on Tenca et al. (2018) and EBAN (2021).

**Table 2. Business angels' goals categorisation examples (continues)**

<b>Economic goals</b>	<b>Goals result from putting money into a startup with an expectation of economic gain within a certain time.</b>
To make money	E.g. To earn money; get more money; obtain extra income; I want to broaden my income; avoid losing money.
To manage risk	E.g. Risk diversification; never rely on just one income; to spread my risk; investment diversification.
To get a high ROI	E.g. I may get a good return on investment; capital growth; maximise investment return; ROI; potential high ROI.
<b>Functional goals</b>	<b>The goals are instrumental and deliver what is expected. The functional goals are based on convenience and efficiency. Examples: to save time and effort.</b>
To invest conveniently	E.g. Lack of time for direct management; more time for other activities; I have time and availability; it is a qualified investment type; greater scrutiny of each business; doing so with limited risk; diversification and collective investment decision; a good business decision.
To reinvest	E.g. I can reinvest some of the capital; continue the investment cycle; reinvest in more startups; increase the invested capital; continue to invest; continue to invest in startups; invest in more ideas; increase the number of investees.
To benefit from public incentives	E.g. To benefit from additional public investments; enjoy tax benefits; minimise tax losses; benefit from public co-investment.
<b>Emotional goals</b>	<b>Goals related to emotions and experiences, playful activities, hedonic sensations, or the excitement and stimulation of investor senses</b>
To live a pleasant life	E.g. To live comfortably; because I want to retire early and enjoy life; playing is an important part of life; allows a comfortable life for my family and me.
To be active	E.g. Keeping alive and aware; the intellectual stimulus, helps keep me mentally alive; prolonging the connection to the business world; gives me a way to remain in the market; keep healthy; to keep the mind working; feel involved; active participant in something positive for society; train the brain; I am retired, I do not expect to retire at 65 and play cards; I hope being an angel investor is a kind of a mental gym for me.
To have challenging experiences	E.g. It is an inspiring experience; participate in new challenges; because I like risk and adrenaline; passion/interest in a particular idea; informal and effervescent business world; dare to interact with different professional worlds with different visions and personalities, to venture through new professional roads.
To have fun	E.g. For the fun of beating the risk/reward matrix; for fun; a playground; a game and it depends on having guts; some play cards, some play video games, BAs play startups; have fun while trying to support someone with money, experience and ideas; because work is very good, but it is not everything.
<b>Symbolic goals</b>	<b>Goals related to personal transformations and social meaning, or gains in social contexts, positive meanings attached to the self, improvement of self-esteem, altruism.</b>
To develop oneself	E.g. Personal and professional growth; continuous evolution and personal growth; personal evolution and continuous learning; improve personal and professional level; develop myself on a personal and professional level; be more efficient; perceive the world better and make better decisions; personal development; enrich me with different but convergent ideas and principles; grow as a person; grow as a business-person; improve my skills in analysing startups; carry on developing know-how; improve my bottom line in the evaluation of investments; allow me to enrich my method of risk analysis; I make better investments; better decisions on future investments; absorb experiences of successful people with a given track record.

(Continued)

To improve one's self-esteem	E.g. Increase my status; pursue social/emotional wealth; personal recognition; social recognition; be recognised as an expert.
To feel fulfilled	E.g. Personal fulfilment; personal fulfilment and happiness; personal satisfaction; get personal satisfaction; for a greater fulfilment and connection with people; like what I do; makes life more interesting; pleasure to learn and perform; have a better life experience for myself; personal achievement; personal satisfaction; personal fulfilment and satisfaction, life meaning; besides the intellectual stimulus, will also help me become a well-rounded business person; self-fulfilment; to live with a purpose; a sense of purpose.
To be updated	E.g. to be updated on the world evolution; to be updated on the evolution of things; being online; continuous update; stay young with the young; staying young (not getting old); maintain a business vision open to new opportunities and trends; anticipate future developments; get up to date and up to date in technology and innovation; contact with a new reality for me; to know first-hand innovative services and products; be aware of new trends in the market; identify trends to track my customers better; better understand the motivations of the young generations; get contact with new ideas and new people; remain in touch with the most innovative part of business life; because the world changes every day and is always innovating; to be updated on new technologies and business models.
<b>Entrepreneurial goals</b>	<b>Goals directly associated with BA activity related to involvement with entrepreneurs and the ecosystem</b>
To support innovation	E.g. Enjoy innovation and being in the front-runner group; innovation is part of professional life; take part in innovative projects; be involved in an ecosystem of innovation; contribute to an innovative business; being able to test more ideas/innovation; I support innovation, and some ideas will explode; being part of creating solutions for the world; stay connected to innovative projects; strengthen innovation; helping to create innovative projects; opportunity to keep in touch with the innovation ecosystem; take an active role in technological and scientific progress; be curious about technology; contribute to the development of innovative ideas.
To mentor entrepreneurs	E.g. To support new entrepreneurs with my experience; I like to help entrepreneurs to avoid strategic mistakes; advise people from new startups because with good advice entrepreneurs can do better; feel able to make the difference in startups through my experience, it is not like investing in the stock market, as an investment angel I can participate and guide the decisions of the founders; I want to support entrepreneurs because I know how difficult it is; help entrepreneurs to make their dreams come true; interact with entrepreneurial people with a missionary spirit; help entrepreneurs not to repeat the same mistakes I made; opportunity to share experiences and strategic reflection with entrepreneurs; deliver added value to entrepreneurs; my experience in some areas may be helpful; help others grow faster; helping entrepreneurs to succeed.
To have a great exit	E.g. To have a great exit; be a shareholder in a unicorn; what is relevant for me are the exits and not the accounting evaluations; exit is the orgasm of the BA.
To awaken the angel identity	E.g. Because I'm an entrepreneur; a BA is also an entrepreneur; the BA is an entrepreneur and a natural strategist; I have in essence the taste for entrepreneurship; I know what it means to be an entrepreneur; I've been there doing that; entrepreneurial nature; my essence of life; I do not want to work for others; I want to be in control of my time resources; I want to be in control of my time and energy; because I have ownership of my destiny.

(Continued)

**Table 2. (Continued)**

Entrepreneurial goals	Goals directly associated with BA activity related to involvement with entrepreneurs and the ecosystem
To be part of entrepreneurship	E.g. access to the ecosystem; help entrepreneurship; passion for entrepreneurship; participate in the entrepreneurial community; because I see the future of entrepreneurship; involvement with the entrepreneur community; I believe in entrepreneurship and innovation; contribute to development of the ecosystem; being inside and at the front of new business ideas and new technologies; entrepreneurship represents courage and freedom; join the community of entrepreneurs; contact with entrepreneurs of a new generation; maintain contact with the business world; support entrepreneurship; contribute to entrepreneurship in my country; support local ecosystem.

cases, result in no value added, not enough value, or even the wrong kind of value (Boué, 2002). This difference between BAs and entrepreneurs can also be due to sensitive matters concerning BAs' involvement, since some entrepreneurs may not be comfortable or agree with the terms, frequency and role the BA expects to have in the startup (McKaskill, 2009b).

### 3.2.2. Economic goals

Both groups of respondents consider that economic goals are relevant, but entrepreneurs think that “to earn money” and “to get a high ROI” are more relevant for BAs than BAs do (Tables 3 and 5). The differences found between the two groups of respondents suggest entrepreneurs perceive that BAs are closer to purely financial investors and focused on achieving economic goals. This perception is not completely coherent with the goals BAs report for themselves. One explanation is that angels like to convey the idea that they act as professional rational investors, driven by purely financial outcomes, disregarding and avoiding showing their emotions and other non-economic goals to the entrepreneurs (Hoffmann & Fieseler, 2012).

### 3.2.3. Functional goals

Functional goals are related to the convenience of the angel investing activity, considering the time and effort needed to obtain a certain result. Functional goals are very lowly ranked, and both groups perceive these goals as less relevant to the angel activity (Tables 3 and 5). Neither angels nor entrepreneurs consider angel investing functional or convenient (BAw(6) and Ew(23)). Indeed, identifying, selecting, investing, mentoring, and exiting from startups needs substantial energy, time and effort.

### 3.2.4. Symbolic goals

Symbolic goals are also varied, comprising goals such as “to feel fulfilled”, “to develop oneself”, “to improve one’s self-esteem” and “to give back to society”. As far as symbolic goals are concerned, there are also some differences between BAs and entrepreneurs’ perspectives. To develop oneself, which ranked first in the list of goals identified by BAs, with BAw(g) = 100, is much lower in the list of entrepreneurs’ opinions (Ew(g) = 47), which reveals a substantial difference between the two groups. To develop oneself includes issues related to personal and professional development and continuous learning. The explanation for the first place in the BAs ranking is that probably BAs recognise in their activity an opportunity for personal development, expanding their knowledge, and their skills in specific areas. The results confirm the stream of angel literature suggesting that BAs appreciate the benefits obtained by the proximity of experienced angel investors (San José et al., 2005). Co-investing and learning from successful BAs are also mentioned as important reasons to be an angel (Preston, 2004). BA investing is also understood as a two-way learning process since BAs learn from entrepreneurs as entrepreneurs learn from BAs (Rose, 2014). Different

**Table 3. Business angel goals ranked by weighted degree algorithm (transformed into a 0–100 scale)**

<b>Economic</b>	<b>Ew(g)</b>	<b>BAw(g)</b>	<b>Functional</b>	<b>Ew(g)</b>	<b>BAw(g)</b>	<b>Emotional</b>	<b>Ew(g)</b>	<b>BAw(g)</b>	<b>Symbolic</b>	<b>Ew(g)</b>	<b>BAw(g)</b>	<b>Entrepreneurial</b>	<b>E(wg)</b>	<b>BAw(g)</b>
to make money	100	85	to benefit from public incentives	0	12	to live a pleasant life	47	68	to develop oneself	47	100	to support innovation	63	94
to manage risk	60	68	to grab the opportunity	27	9	to have challenging experiences	43	56	to improve one's self-esteem	100	82	to mentor entrepreneurs	30	71
to get a high ROI	73	59	to reinvest	17	9	to be active	20	50	to feel fulfilled	60	79	to invest in new business	70	56
			to plan my career	3	9	to socialise with great people	40	32	to be updated	80	74	to help startups grow	57	47
			to invest conveniently	23	6	to be happy	30	29	to learn	57	68	to be part of entrepreneurship	53	38
			to fit basic needs	13	3	to take care of my family	13	21	to do networking	23	59	to create an entrepreneurial legacy	20	32
						to have fun	20	21	to share knowledge and experience	63	56	to interact with other angels	3	29
						to be part of something extraordinary	10	18	to make a better world	57	41	to awake the angel identity	50	18
						to have a hobby	10	6	to give back to society	30	41	to be involved with startups	23	18
									to support own country	7	35	to have a great EXIT	3	12
									to express benevolence	33	29			
									to be successful	67	9			

**Table 4. Business angel goals ranked by PageRank PR(g) algorithm (transformed into a 0–100.00 scale)**

Economic	E PR (g)	BA PR (g)	Functional	E PR (g)	BA PR (g)	Emotional	E PR (g)	BA PR (g)	Symbolic	E PR (g)	BA PR (g)	Entrepreneurial	E PR (g)	BA PR (g)
to make money	14.32	32.46	to reinvest	9.37	12.28	to be happy	83.75	94.79	to feel fulfilled	100.00	100.00	to mentor entrepreneurs	11.91	26.35
to manage risk	13.32	20.34	to plan my career	6.87	6.78	to have challenging experiences	5.82	58.07	to express benevolence	17.85	88.29	to support innovation	11.04	21.87
to get a high ROI	11.61	16.12	to benefit from public incentives	0.00	5.92	to live a pleasant life	19.07	43.81	to improve one's self-esteem	48.72	67.64	to awake the angel identity	15.65	17.83
			to fit basic needs	8.95	5.89	to take care of my family	6.77	22.19	to give back to society	21.26	43.32	to invest in new business	8.50	16.19
			to invest conveniently	6.38	5.01	to be active	6.89	18.88	to develop oneself	19.43	33.76	to be part of entrepreneurship	8.64	12.74
			to grab the opportunity	5.63	4.34	to be part of something extraordinary	5.74	17.82	to make a better world	34.90	27.61	to help startups grow	15.51	12.53
						to socialise with great people	12.20	12.90	to be updated	18.17	23.87	to create an entrepreneurial legacy	16.76	9.98
						to have fun	5.02	10.30	to share knowledge and experience	22.17	15.79	to have a great EXIT	2.73	7.26
						to have an hobby	4.09	5.52	to learn	24.65	15.04	to interact with other angels	2.73	5.32
									to support own country	3.34	14.74	to be involved with startups	3.77	3.77
									to do networking	8.85	10.42			
									to be successful	28.67	4.83			



**Table 5. Top 10 angel goals ranked with weighted degree algorithm**

Business angel goals by business angels				Business angel goals by entrepreneurs			
Ranking	Goal	Weight BA(w(g))	Type	Ranking	Goal	Weight Ew(g)	Type
1	to develop oneself	100	Symbolic	1	to make money	100	Economic
2	to support innovation	94	Entrepreneurial	2	to improve one's self-esteem	100	Symbolic
3	to make money	85	Economic	3	to be updated	80	Symbolic
4	to improve one's self-esteem	82	Symbolic	4	to get a high ROI	73	Economic
5	to feel fulfilled	79	Symbolic	5	to invest in new business	70	Entrepreneurial
6	to be updated	74	Symbolic	6	to be successful	67	Symbolic
7	to mentor entrepreneurs	71	Entrepreneurial	7	to share knowledge and experience	63	Symbolic
8	to learn	68	Symbolic	8	to support innovation	63	Entrepreneurial
9	to live a pleasant life	68	Emotional	9	to manage risk	60	Economic
10	to manage risk	68	Economic	10	to feel fulfilled	60	Symbolic

**Table 6. Top 10 angel goals ranked with page rank algorithm**

Business angel goals by business angels				Business angel goals by entrepreneurs			
Ranking	Goal	BA PR(g)	Type	Ranking	Goal	E PR(g)	Type
1	to feel fulfilled	100	Symbolic	1	to feel fulfilled	100	Symbolic
2	to be happy	94.79	Emotional	2	to be happy	83.75	Emotional
3	to express benevolence	88.29	Symbolic	3	to improve one's self-esteem	48.72	Symbolic
4	to improve one's self-esteem	67.64	Symbolic	4	to make a better world	34.9	Symbolic
5	to have challenging experiences	58.07	Emotional	5	to be successful	28.67	Symbolic
6	to live a pleasant life	43.81	Emotional	6	to learn	24.65	Symbolic
7	to give back to society	43.32	Symbolic	7	to share knowledge and experience	22.17	Symbolic
8	to develop oneself	33.76	Symbolic	8	to give back to society	21.26	Symbolic
9	to make money	32.46	Economic	9	to develop oneself	19.43	Symbolic
10	to make a better world	27.61	Symbolic	10	to live a pleasant life	19.07	Emotional

perceptions also occur in other goals such as “*to do networking*”, ranked BAw(g) = 59 and Ew(g) = 23, revealing that BAs want to continue their networking much more than entrepreneurs perceive (Tables 3 and 5). “*To support their own country*” obtained BAw(g) = 35 and Ew(g) = 7, showing higher patriotic motivations among angels than entrepreneurs.

Another notable discrepancy is found in the goal “*to be successful*”, which is highly ranked by the entrepreneurs, with Ew(g) = 67, getting only BAw(g) = 9 in the view of BAs. These findings suggest that BAs, known as successful people, are not likely to expect angel activity to contribute directly to enhancing their success. One possible explanation is that BAs have already had success previously, and ground the fight for new success indirectly on the entrepreneurs’ hands. The BA goal “*to improve one’s self-esteem*” was recognised as considerably central by both BAs (BAw(g) = 80) and entrepreneurs (Ew(g) = 100), with the latter finding this goal to be the most central jointly with “*to make money*”. “*to improve one’s self-esteem*” is identified by extant literature considering that angel activity enhances angels’ self-esteem, with self-esteem comprising social recognition and status (Rose, 2014), making a huge difference in people’s lives (Peterson & Murtha, 2010) and giving meaning to angels’ lives (Politis & Landstrom, 2002). Other symbolic goals considerably central to both BAs and entrepreneurs are “*to feel fulfilled*” (BAw(g) = 79, Ew(g) = 60) and “*to be updated*” (BAw(g) = 74, Ew(g) = 80).

### 3.2.5. Entrepreneurial goals

Several entrepreneurial goals have been identified. Three of them are in the list of the 10 most central goals in the set of both BAs and entrepreneurs: “*to support innovation*”, “*to mentor entrepreneurs*”, and “*to invest in new businesses*”. While “*to support innovation*” BAw(g) = 94 and “*to mentor entrepreneurs*” BAw(g) = 71 emerged as central for BAs’ goals, it is surprising that “*to mentor entrepreneurs*” Ew(g) = 30 is ranked low by entrepreneurs. These unexpected results suggest that BAs and entrepreneurs may have different expectations regarding the angel role. Some angels expect to contribute with high levels of mentoring and money (entrepreneurial role) while entrepreneurs perceive angels to contribute with much more money than mentoring (financial role). This point relates to the expectations of angel involvement discussed previously and to the “*coachability*” of the entrepreneur. To what extent do entrepreneurs want to receive advice and mentorship from BAs? Angels consider mentorship an important goal for their activity, but entrepreneurs seem to devalue the mentorship goal. BAs prefer to invest in coachable teams that are available to be mentored (Ciuchta et al., 2018). So, a new question emerges from these results. Is mentorship relevant because of the angels or the entrepreneurs? Further research is needed for better understanding of entrepreneurs’ expectations regarding BAs’ mentoring and to better align these expectations and the willingness of BAs to provide mentoring.

Finally, the low ranking of “*to have a great exit*” is remarkable in both groups—entrepreneurs Ew(g) = 3 and BAs BAw(g) = 12. Two situations may occur here. First, working toward exits seems a low priority for BAs, as suggested by Van Osnabrugge (2000), who argues that BAs prefer to wait for VCs to do the exit part of the job. Secondly, most BAs are unlikely “*to have a great exit*” since research shows that only 7% of angel exits achieve returns above 10 times the invested capital (Rose, 2014; Wiltbank & Boeker, 2007). Perhaps BAs are not over-enthusiastic about exits or do not have easy access to those startups that permit fantastic exits and become unicorns (Aldrich & Ruef, 2018). Possibly, BAs derive satisfaction from the process of being angels more than from the extraordinary result of having a great exit.

### 3.2.6. The concrete and short-term view

Comparing at a glance the two short-term perspectives that come out of the weighted Degree algorithm—from BAs and entrepreneurs – (see Table 5), one main conclusion emerges. There are two angel investor prototypes. While BAs emphasise the continuity of the entrepreneurial career with self-development and support for innovation as priority goals

(the entrepreneurial role), entrepreneurs' view of BAs' goals emphasises financial investors' economic perspective, concerned with making money (financial role). This research suggests that entrepreneurs may not perceive how relevant some non-economic goals are for BAs, such as developing themselves continually, being in close connection with the entrepreneurial world, learning, supporting innovation and mentoring entrepreneurs. Entrepreneurs understand making money as the most important goal for BAs, jointly with improving one's self-esteem. These different perceptions can make entrepreneurs invest in aspects of the BA-entrepreneur relationship that are not so relevant for angel investors and give less time and effort to other important BA goals.

### 3.2.7. *The abstract and long-term view*

The goals identified by BAs as most desirable long-term goals were “*to feel fulfilled*” BA PR(g) = 100, “*to be happy*” BA PR(g) = 94.79 and “*to express benevolence*” BA PR(g) = 88.29. These goals include personal satisfaction, personal fulfilment, personal gratification, happiness, the desire to help others, and a sense of purpose and life meaning (see Table 4 for details). This research supports the idea that angel activity can be pleasurable, creating a sense of satisfaction and sheer joy (Benjamin & Margulis, 2005), and giving BAs the possibility to express their benevolence through helping entrepreneurs (Kotler et al., 2004). Also, BAs invest for altruistic reasons supporting useful social innovation and creating local jobs (Ibrahim, 2008), giving meaning to their life as investors (Politis & Landstrom, 2002) and generating long-term value.

Analysing Tables 4 and 6, no substantial differences are found in the results of long-term goals perceived by BAs and entrepreneurs. However, some exceptions are noted. BAs expect higher emotional outcomes than entrepreneurs perceive. Another notable issue is the symbolic goal “*to express benevolence*”, ranked BA PR(g) = 88.29 based on BAs' perspective and only E PR(g) = 17.85 based on entrepreneurs' perspective. Many BAs understand the investing activity as a way to express their benevolence, although entrepreneurs almost ignore this goal. Perhaps BAs do not like to admit to entrepreneurs that, behind the financial investor, they are searching for emotional and symbolic value.

### 3.2.8. *Goals interdependence and visual representation*

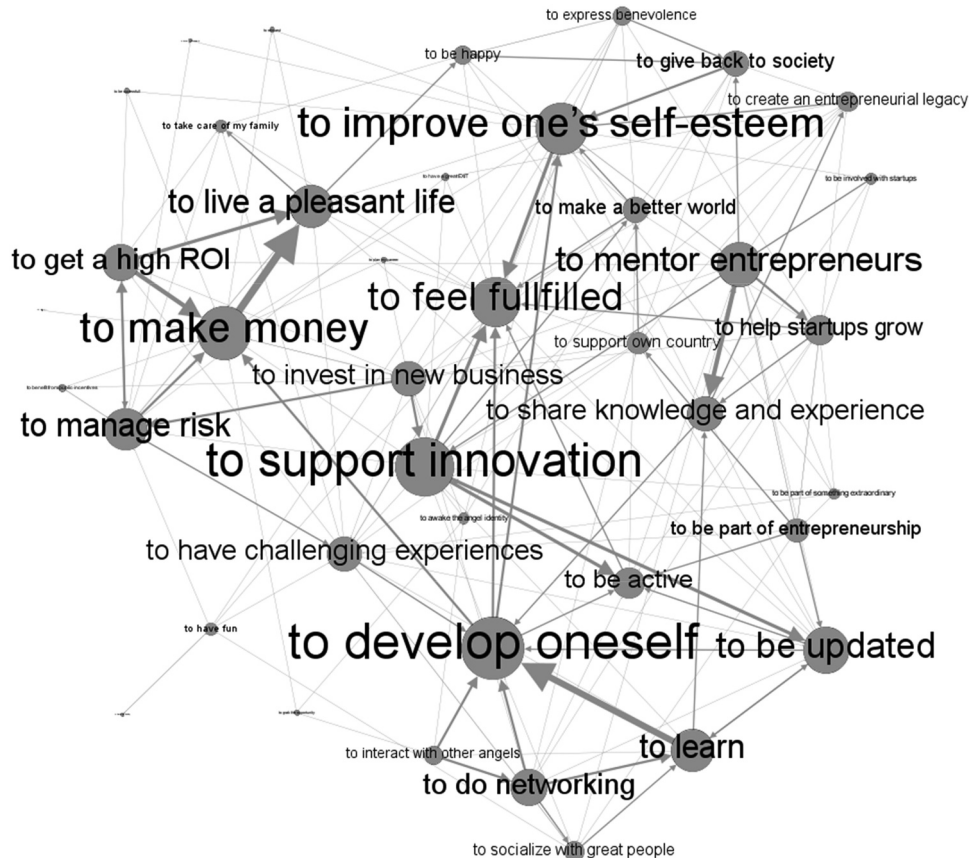
Figures 1 to 4 provide relevant information through the graph representation of angel goals. The nodes represent the goals motivating BAs to be business angels. The edges show the relationship or path between each node and the destination nodes, identified through the answers to the “why” questions. Consequently, these graphical representations show the goals that make other goals achievable and what goals enable specific goals to be reached. The findings reveal, for example, that the most robust relationship involving the money goal is the following: *to get a high ROI* → *to make money* → *to live a pleasant life* (Figures 1 and 2).

For an angel investor, making money is an obvious measure of success (Riding, 2008), but giving back to society, supporting innovation and sharing their experience are admirable goals in the community's eyes (Severinsen et al., 2012). Figure 1 shows, for example, that supporting innovation, improving self-esteem by giving back to society, and developing oneself, are the biggest contributors to BAs feeling fulfilled. The goal “*to make money*” is not a significant contributor to the goal “*to feel fulfilled*”, proving angels rely on other types of goals to live a great angel experience. These findings on the interdependence of goals are extremely relevant, not only to help BAs identify strategies to achieve their main goals, but also to guide entrepreneurs and the whole ecosystem in developing strategies to assist angels to attain these goals.

## 4. **Conclusions and implications for the angel ecosystem**

This paper makes an in-depth analysis of the reasons behind angel investing from the perspective of BAs and entrepreneurs, based on a means-ends chain and network analysis algorithms.

**Figure 1. Angel investors' goals identified by business angels, using the weighted degree algorithm.**

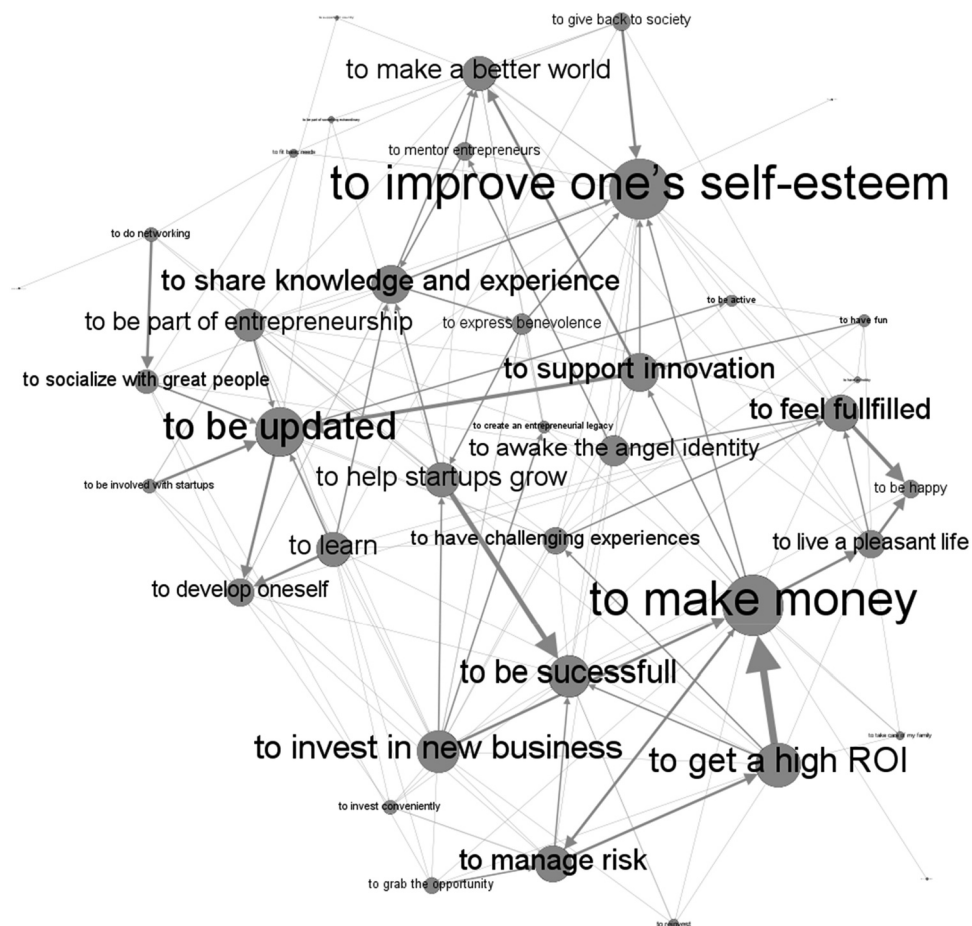


Regarding theoretical contributions, first, the paper brings marketing and consumer behaviour theory into angel research, providing tools and methods that enable a holistic and integrated view of the BA investor. Specifically, this research uncovers BAs' goals, represented in five dimensions, including the four mentioned in the literature on perceived investment value—economic, functional, emotional and symbolic—and highlights the relevance of entrepreneurial goals.

Second, by using laddering methodologies and social network algorithms it was possible for the first time in angel research to relate, interconnect, hierarchize and prioritize angel goals. The hierarchy of goals identified through the in-depth network analysis reveals the most relevant short-term and long-term BA goals, showing considerable differences in BAs and entrepreneurs' perceptions of several goals. The results suggest that entrepreneurs tend to overestimate the importance of some economic goals for angels—e.g. “to earn money”; and “to get a high ROI” – and to underestimate the relevance of some symbolic goals—e.g. “to develop oneself” –, which suggest a personal development motivation, and of goals that favour angels' deep connection with entrepreneurship—e.g. “to support innovation” and “to mentor entrepreneurs”. Among long-term goals, both groups recognise the relevance of symbolic and emotional goals such as “to feel fulfilled”, “to be happy”, and “to express benevolence”. However, BAs give more relevance to emotional goals, while entrepreneurs seem not to understand that BAs give importance to certain symbolic angel goals such as “to express benevolence”.

The findings indicate that for BAs the act of investing is the opportunity, or the instrument, to achieve other types of higher goals besides money, associating the dominant perception of value

**Figure 2. Angel investors' goals identified by entrepreneurs, using the weighted degree algorithm.**



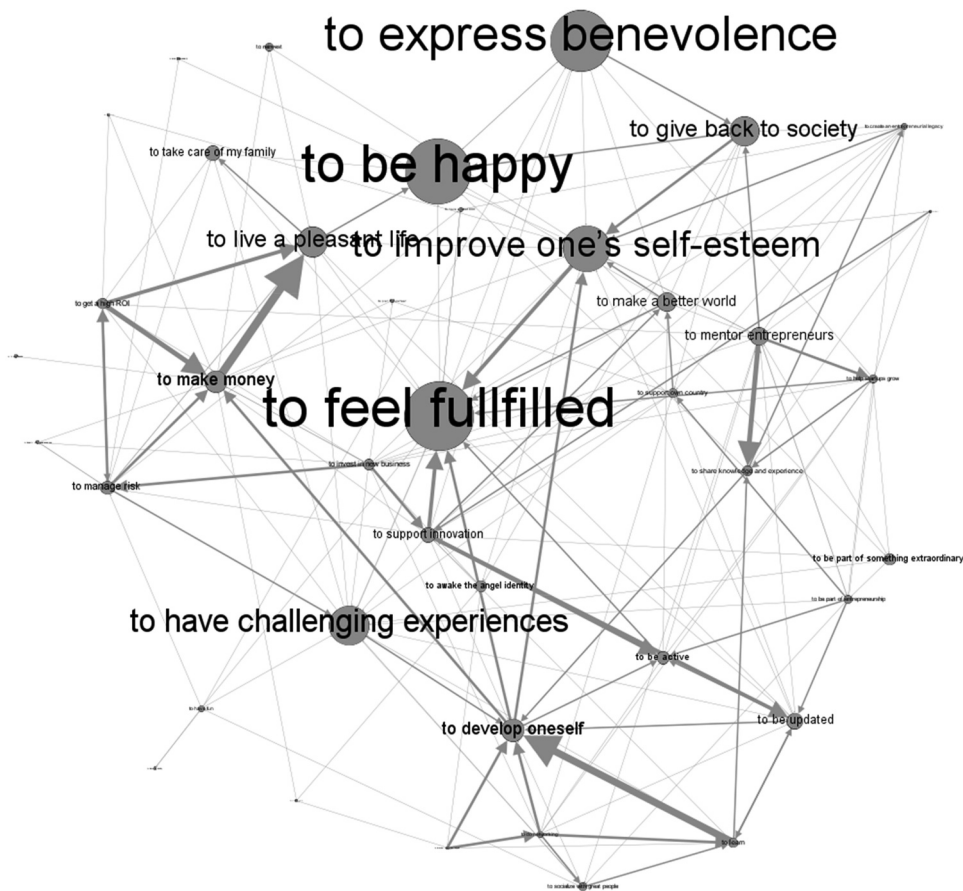
with the opportunity for self-development, to feel fulfilled and continue the entrepreneurial career. Contrarily, entrepreneurs tend to focus their perspective of angels on economic goals.

BAs should plan their investing career to achieve what they aim for, as well as selecting the BA groups, startups, types of involvement and exit that match their goals. “*To develop oneself*”, “*to support innovation*”, “*to be fulfilled*”, “*to be happy*” and “*to express benevolence*” emerged as important goals for BAs, the first two in the short term and the others in the long term.

This expresses the aim to develop as a person, improve investor skills, learn, and share ideas, also reflecting BAs’ entrepreneurial nature and passion for innovation. All these goals corroborate the BA literature confirming that BAs are not purely financial investors (e.g. Politis & Landstrom, 2002; Rose, 2014), being quite different from VCs (Hsu et al., 2014). Due to the relevance of these goals, BAs should reflect on whether these goals are important for them and share them with entrepreneurs and gatekeepers so that these agents can help fulfil their expectations.

This study reveals that entrepreneurs usually see angels as financial investors whose main goal is money and angels see themselves as entrepreneurs whose main goals are continuing to develop themselves and support innovation. Angels need to satisfy priority goals other than economic ones and need entrepreneurs to allow them to be symbolically and emotionally involved with the entrepreneurial journey, developing themselves, learning, supporting innovation and being part

**Figure 3. Angel investors' goals identified by business angels, using the PageRank algorithm.**

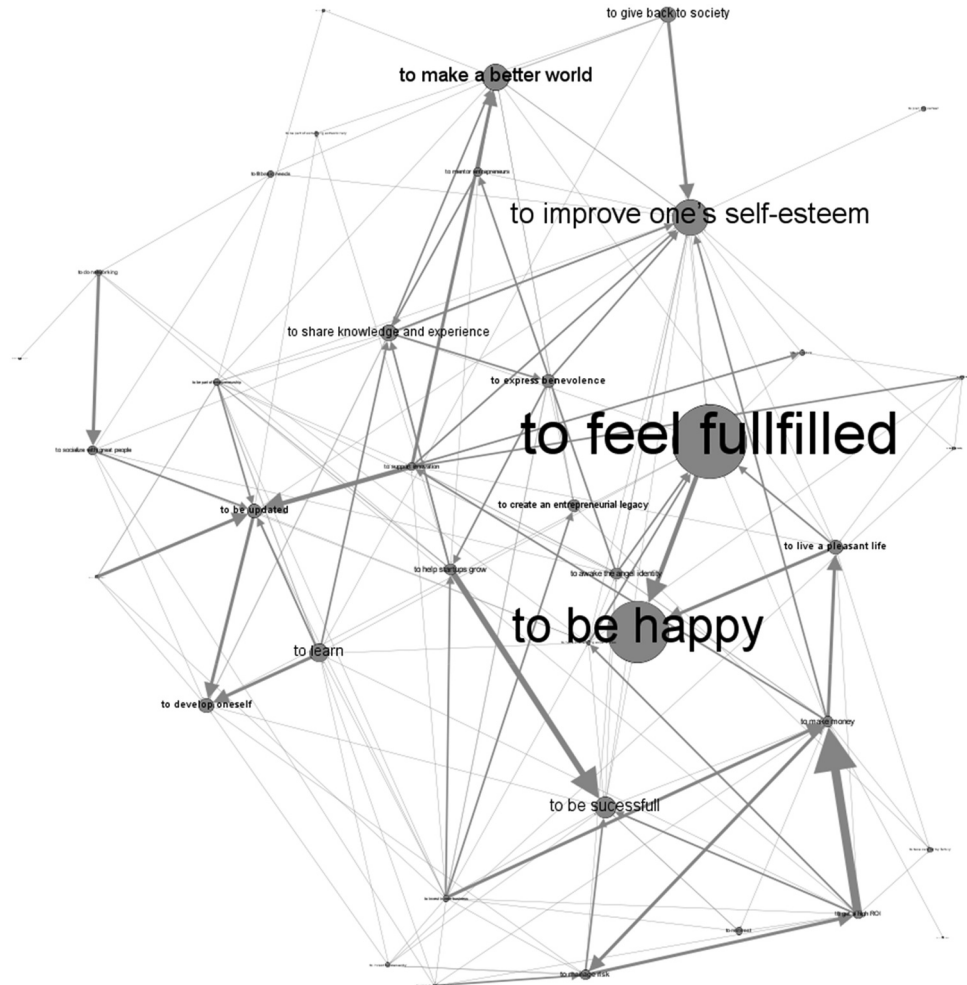


of the startup development. Entrepreneurs should understand that angels are much more than financial investors and give them the chance to participate more actively in the entrepreneurial process. A substantial goal alignment between BAs and entrepreneurs is a *sine-qua-non* condition for both parties to achieve successful outcomes.

In addition, this paper provides important managerial implications for several agents in the BAs ecosystem. Gatekeepers and BA network leaders should manage BAs understanding they pursue symbolic, emotional, functional, economic and entrepreneurial goals. Managing BAs efficiently implies helping them achieve their multiple goals, particularly the most relevant ones. The gatekeeper should design the angel group experience and activities according to the type of goals claimed by that specific group of angels. For example, if the consensual group goal is to have a fast financial return, then the initial investment should be made at a later stage and exits should be planned and maximised soon. In contrast, events should be prepared to offer pleasant business moments in attractive premises when the group's main goal is to have a good time and emotional outcomes. A more in-depth understanding of the BAs' goals would help these agents to define strategies that help BAs to live a satisfactory angel experience more aligned with their goals.

Policymakers should implement measures that stimulate BAs' personal and professional development, promoting training programmes, stimulating BA grouping and association, and creating new learning environments close to entrepreneurs.

**Figure 4. Angel investors' goals identified by entrepreneurs, using the PageRank algorithm.**



Since making money is not perceived as a long-term and abstract goal, but an intermediary objective, measures permitting alternative forms of earlier capitalisation and financial return for angel investors, enabling earlier or medium-term exits, as well as tax compensations to offset the long financial wait, would be appropriate.

Notwithstanding its contributions, the study has some limitations. Despite providing a general perspective of BAs' goals, further research should try to detect differences between the goals of more and less experienced angels, as well as comparing those investing alone with those investing through angel groups and networks. Even though the empirical study was carried out among a set of BAs from six European countries, there was a predominance of Portuguese angels. Further studies should be developed in different regions to understand major cultural and contextual differences, for example taking into account different cultural differences, in the type of goals pursued and how they are related, which may have an impact on the type of goals that explain why BAs invest, and the structure existing among these goals, including long-range and short-range ones. Since the present study is qualitative, this research should be extended and validated using quantitative multivariate techniques. It would be relevant to analyse the impact of angel goals on some complex factors, such as investment strategy, angel career, type of involvement, and exit strategy. Finally, it would be interesting to continue incorporating marketing and consumer behaviour theory into the entrepreneurship field, developing a deeper understanding of how angels and entrepreneurs' goals can be aligned to reach the entrepreneurial purpose of value co-creation.



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### References

- Aldrich, H. E., & Ruef, M. (2018). Unicorns, gazelles, and other distractions on the way to understanding real entrepreneurship in the United States. *Academy of Management Perspectives*, 32(4), 458–472. <https://doi.org/10.5465/amp.2017.0123>
- Allen, D. E., & McGoun, E. G. (2001). Hedonic investment. *Financial Services Review*, 9(4), 389–403. [https://doi.org/10.1016/S1057-0810\(01\)00077-4](https://doi.org/10.1016/S1057-0810(01)00077-4)
- Aspara, J., & Tikkanen, H. (2011). Individuals' affect-based motivations to invest in stocks: Beyond expected financial returns and risks. *Journal of Behavioral Finance*, 12(2), 78–89. <https://doi.org/10.1080/15427560.2011.575970>
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin*, 120(3), 338–375. <https://doi.org/10.1037/0033-2909.120.3.338>
- Bagozzi, R. P., & Edwards, E. A. (1998). Goal setting and goal pursuit in the regulation of body weight. *Psychology and Health*, 13(4), 593–621. <https://doi.org/10.1080/08870449808407421>
- Baker, H. K., & Ricciardi, V. (2014). Investor behavior - the psychology of financial planning and investing. In *Investor behaviour: The psychology of financial planning and investing*. John Wiley & Sons. <https://doi.org/10.1002/9781118813454>
- Barberis, N., Shleifer, A., & Vishny, R. (1998). A model of investor sentiment. *Journal of Financial Economics*, 49(3), 307–343. [https://doi.org/10.1016/S0304-405X\(98\)00027-0](https://doi.org/10.1016/S0304-405X(98)00027-0)
- Barberis, N. C., & Thaler, R. H. (2003). A survey of behavioral finance. In G. M. Constantinides, M. Harris, & R. M. Stulz (Eds.), *Handbook of the economics of finance* (pp. 1053–1128). Elsevier B.V. [https://doi.org/10.1016/S1574-0102\(03\)01027-6](https://doi.org/10.1016/S1574-0102(03)01027-6)
- Baty, G. B. (1963). *Financing the New Research-Based Enterprise in New England* [Unpublished Master's Thesis]. Cambridge, Massachusetts Institute of Technology.
- Beal, D. J., Goyen, M., & Philips, P. (2005). Why do we invest ethically? *Journal of Investing*, 14(3), 66–78. <https://doi.org/10.3905/joi.2005.580551>
- Benjamin, G., & Margulis, J. (2005). *Angel capital: How to raise early-stage private equity financing*. John Wiley & Sons.
- Block, J. H., Colombo, M. G., Cumming, D. J., & Vismara, S. (2018). New players in entrepreneurial finance and why they are there. *Small Business Economics*, 50(2), 239–250. <https://doi.org/10.1007/s11187-016-9826-6>
- Bonacich, P. (1987). Power and centrality: A family of measures. *The American Journal of Sociology*, 92(5), 1170–1182. <https://doi.org/10.1086/228631>
- Bonacich, P. (2007). Some unique properties of eigenvector centrality. *Social Networks*, 29(4), 555–564. <https://doi.org/10.1016/j.socnet.2007.04.002>
- Bonnet, C., Capizzi, V., Cohen, L., Petit, A., & Wirtz, P. (2022). What drives the active involvement in business angel groups? The role of angels' decision-making style, investment-specific human capital and motivations. *Journal of Corporate Finance*, 77, 101944. <https://doi.org/10.1016/j.jcorpfin.2021.101944>
- Borgatti, S. P. (2005). Centrality and network flow. *Social Networks*, 27(1), 55–71. <https://doi.org/10.1016/j.socnet.2004.11.008>
- Boué, A. R. (2002). Value added from venture capital investors: What is it and how does it get into the venture. *IPO Beteiligungs-Management*. <https://docplayer.net/15939254-Value-added-from-venture-capital-investors-what-is-it-and-how-does-it-get-into-the-venture.html>
- Brettel, M. (2003). Business angels in Germany: A research note. *Venture Capital*, 5(3), 251–268. <https://doi.org/10.1080/1369106032000122095>
- Brunson, K., Scholderer, J., & Grunert, K. G. (2004). Closing the gap between values and behavior - a means-end theory of lifestyle. *Journal of Business Research*, 57(6), 665–670. [https://doi.org/10.1016/S0148-2963\(02\)00310-7](https://doi.org/10.1016/S0148-2963(02)00310-7)
- Burke, P. J. (2016). Identity control theory. In *The Blackwell Encyclopedia of Sociology* (pp. 2202–2207). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781405165518.wbeosi002.pub2>
- Burke, P. J., & Stets, J. E. (2009). *Identity theory*. Oxford University Press.
- Canova, L., Rattazzi, A. M., & Webley, P. (2005). The hierarchical structure of saving motives. *Journal of Economic Psychology*, 26(1), 21–34. <https://doi.org/10.1016/j.joep.2003.08.007>
- Carsrud, A., & Brannback, M. (2011). Entrepreneurial motivations: What do we still need to know? *Journal of Small Business Management*, 49(1), 9–26. <https://doi.org/10.1111/j.1540-627X.2010.00312.x>
- Ciuchta, M. P., Letwin, C., Stevenson, R., McMahon, S., & Huvaj, M. N. (2018). Betting on the coachable entrepreneur: Signaling and social exchange in entrepreneurial pitches. *Entrepreneurship Theory and Practice*, 42(6), 860–885. <https://doi.org/10.1177/1042258717725520>
- Collewaert, V. (2010). Angel-entrepreneur relationships: Demystifying their conflicts. In H. Landström & C. Mason (Eds.), *Handbook of Research on Business Angels* (pp. 176–198). Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781783471720.00014>

- Collewaert, V. (2012). Angel investors' and entrepreneurs' intentions to exit their ventures: A conflict perspective. *Entrepreneurship Theory and Practice*, 36(4), 753–779. <https://doi.org/10.1111/j.1540-6520.2011.00456.x>
- Collewaert, V., & Manigart, S. (2016). Valuation of angel-backed companies: The role of investor human capital. *Journal of Small Business Management*, 54(1), 356–372. <https://doi.org/10.1111/jsbm.12150>
- Croce, A., Ughetto, E., & Cowling, M. (2020). Investment motivations and UK business angels' appetite for risk taking: The moderating role of experience. *British Journal of Management*, 31(4), 728–751. <https://doi.org/10.1111/1467-8551.12380>
- Dorn, D., & Sengmueller, P. (2009). Trading as entertainment? *Management Science*, 55(4), 591–603. <https://doi.org/10.1287/mnsc.1080.0962>
- EBAN. (2019). *EBAN statistics compendium - European early stage market statistics - 2018*. <https://doi.org/10.1017/CBO9781107415324.004>
- EBAN. (2021). *EBAN statistics compendium - European early stage market statistics 2020*. <https://www.eban.org/wp-content/uploads/2021/12/EBAN-Statistics-Compendium-2021-1.pdf>
- Edelman, L. F., Manolova, T. S., & Brush, C. G. (2017). Angel investing: A literature review. *Foundations and Trends in Entrepreneurship*, 13(4–5), 265–439. <https://doi.org/10.1561/03000000051>
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417. <https://doi.org/10.2307/2325486>
- Fama, E. F., & French, K. R. (2007). Disagreement, tastes, and asset prices. *Journal of Financial Economics*, 83(3), 667–689. <https://doi.org/10.1016/j.jfineco.2006.01.003>
- Farrell, A. E. (2005). *Motivations, behaviour and cognition of novice and habitual business angels in new firm incorporations* [Unpublished PhD Thesis]. University of Nottingham.
- Fili, A. (2014). *Governance Strategies of Business Angels in the Post-Investment Venture Relationship* [Unpublished PhD Thesis]. KTH Royal Institute of Technology
- Fili, A., & Grünberg, J. (2016). Business angel post-investment activities: A multi-level review. *Journal of Management & Governance*, 20(1), 89–114. <https://doi.org/10.1007/s10997-014-9296-7>
- Freear, J., Sohl, J. E., & Wetzel, W. E. (1994). Angels and non-angels: Are there differences? *Journal of Business Venturing*, 9(2), 109–123. [https://doi.org/10.1016/0883-9026\(94\)90004-3](https://doi.org/10.1016/0883-9026(94)90004-3)
- Freear, J., Sohl, J. E., & Wetzel, W. E. (1995). Angels: Personal investors in the venture capital market. *Entrepreneurship & Regional Development*, 7(1), 85–94. <https://doi.org/10.1080/08985629500000005>
- Freear, J., Sohl, J. E., & Wetzel, W. E. (2002). Angles on angels: Financing technology-based ventures - a historical perspective. *Venture Capital*, 4(4), 275–287. <https://doi.org/10.1080/1369106022000024923>
- Freeman, L. C. (1978). Centrality in social networks conceptual clarification. *Social Networks*, 1(3), 215–239. [https://doi.org/10.1016/0378-8733\(78\)90021-7](https://doi.org/10.1016/0378-8733(78)90021-7)
- Gaston, R. J. (1989). *Finding private venture capital for your firm: A complete guide*. John Wiley & Sons Inc.
- Grundy, D., & Ohmer, C. (2016). German crowd-investing platforms: Literature review and survey. *Cogent Business & Management*, 4(7(1)), 1–20. <https://doi.org/10.1080/23311975.2016.1138849>
- Grunert, K. G., Beckmann, S. C., & Brandi, E. S. (2001). Means-end chains and laddering: An inventory of problems and an agenda for research. In T. J. Reynolds & J. C. Olson (Eds.), *Understanding consumer decision making: The means-end approach to marketing and advertising strategy* (pp. 64–91). Lawrence Erlbaum Associates.
- Grunert, K. G., & Valli, C. (2001). Designer-made meat and dairy products: Consumer-led product development. *Livestock Production Science*, 72(1–2), 83–98. [https://doi.org/10.1016/S0301-6226\(01\)00269-X](https://doi.org/10.1016/S0301-6226(01)00269-X)
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60–72. <https://doi.org/10.1177/002224298204600207>
- Gutman, J. (1997). Means end chains as goal hierarchies. *Psychology & Marketing*, 14(6), 545–560. [https://doi.org/10.1002/\(SICI\)1520-6793\(199709\)14:6<545:AID-MAR2>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1520-6793(199709)14:6<545:AID-MAR2>3.0.CO;2-7)
- Hardesty, D. M., & Bearden, W. O. (2004). The use of expert judges in scale development. Implications for improving face validity of measures of unobservable constructs. *Journal of Business Research*, 57(2), 98–107. <https://doi.org/10.1016/S0148-29630100295-8>
- Harrison, R. T., & Mason, C. (2019). Venture capital 20 years on: Reflections on the evolution of a field. *Venture Capital*, 21(1), 1–34. <https://doi.org/10.1080/13691066.2019.1562627>
- Hill, B. E., & Power, D. (2002). *Attracting capital from angels: How their money - and their experience - can help you build a successful company*. John Wiley & Sons.
- Hoffmann, C., & Fieseler, C. (2012). Investor relations beyond financials: Non-financial factors and capital market image building. *Corporate Communications: An International Journal*, 17(2), 138–155. <https://doi.org/10.1108/13563281211220265>
- Hoyos-Iruarizaga, J., Fernández-Sainz, A., & Saiz-Santos, M. (2017). High value-added business angels at post-investment stages: Key predictors. *International Small Business Journal*, 35(8), 949–968. <https://doi.org/10.1177/0266242616686401>
- Hsu, D. K., Haynie, J. M., Simmons, S. A., & McKelvie, A. (2014). What matters, matters differently: A conjoint analysis of the decision policies of angel and venture capital investors. *Venture Capital*, 16(1), 1–25. <https://doi.org/10.1080/13691066.2013.825527>
- Huvaj, M. N. (2020). A co-opetition view of the entrepreneur-investor relationship: Modelling entrepreneurial exit pathways. *Journal of Entrepreneurship*, 29(2), 365–394.
- Ibrahim, D. M. (2008). The (not so) puzzling behavior of angel investors. *Vanderbilt Law Review*, 61(5), 1405–1452. <https://heinonline.org/HOL/LandingPage?handle=hein.journals/vanlr61&div=44&id=&page=1405>
- Islam, M., Tahir, M., & Khan, A. (2020). Inertia to the adoption of crowdfunding in Bangladesh: A study on start-up entrepreneurs. *Cogent Business & Management*, 7(1), 1811597. <https://doi.org/10.1080/23311975.2020.1811597>
- Kahneman, D., & Tversky, A. (1979). Prospect theory. *Econometrica*, 47(2), 263–292. <https://doi.org/10.2307/1914185>
- Kahneman, D., & Tversky, A. (2013). Choices, values, and frames. In L. MacLean & W. Ziemba (Eds.), *Handbook of the fundamentals of financial decision making* (pp. pp. 269–278). World Scientific.
- Keynes, J. N. (1955). *The scope and method of political economy*. Kelley & Millman.
- Khalifa, A. S. (2004). Customer value: A review of recent literature and an integrative configuration. *Management Decision*, 42(5), 645–666. <https://doi.org/10.1108/00251740410538497>
- Kirkley, W. W. (2016). Entrepreneurial behaviour: The role of values. *International Journal of Entrepreneurial Behavior & Research*, 35, 317–360.

- Kotler, P., Kartajaya, H., & Young, S. D. (2004). *Attracting investors - a marketing approach to finding funds for your business*. John Wiley & Sons. John Wiley & Sons.
- Landstrom, H. (1993). Informal risk capital in Sweden and some international comparisons. *Journal of Business Venturing*, 8(6), 525–540. [https://doi.org/10.1016/0883-9026\(93\)90037-6](https://doi.org/10.1016/0883-9026(93)90037-6)
- Landstrom, H., & Mason, C. (2016). Business angels as a research field. In H. Landström & C. Mason (Eds.), *Handbook of research on business angels* (pp. 1–22). Edward Elgar Publishing. <https://doi.org/10.4337/9781783471720>
- Linde, L., & Prasad, A. (2000). *Venture support systems project: Angel investors*. MIT Entrepreneurship Center. Massachusetts.
- Lounio, M. (2014). *Factors Affecting Consumer Investment Intentions. Empirical Evidence from Finland* [Unpublished Master Thesis]. Lappeenranta University of Technology. <http://urn.fi/URN:NBN:fi-fe2014093044982>
- Malhotra, N. K., Nunan, D., & Birks, D. F. (2017). *Marketing Research - an Applied Approach* (Seventh ed.). Pearson Education.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77–91. <https://doi.org/10.1111/j.1540-6261.1952.tb01525.x>
- Mason, C. M. (2006). Informal sources of venture finance. In S. Parker, Ed. *International handbook of entrepreneurship - The life cycle of entrepreneurial ventures* (Vol. 2 pp. 259–299). Kluwer. [https://doi.org/10.1007/978-0-387-32313-8\\_10](https://doi.org/10.1007/978-0-387-32313-8_10)
- Mason, C. M. (2008). *The real venture capitalist: A review of research on business angels*. Hunter Center for Entrepreneurship, University of Strathclyde.
- Mason, C. M., & Botelho, T. (2014). *The 2014 survey of business angel investing in the UK: A changing market place*. Retrieved from [http://www.gla.ac.uk/media/media\\_362647\\_en.pdf](http://www.gla.ac.uk/media/media_362647_en.pdf)
- Mason, C. M., Botelho, T., & Harrison, R. (2016). The transformation of the business angel market: Empirical evidence and research implications. *Venture Capital*, 18(4), 321–344. <https://doi.org/10.1080/13691066.2016.1229470>
- Mason, C. M., & Harrison, R. T. (2002). Is it worth it? The rates of return from informal venture capital investments. *Journal of Business Venturing*, 17(3), 211–236. [https://doi.org/10.1016/S0883-9026\(00\)00060-4](https://doi.org/10.1016/S0883-9026(00)00060-4)
- McKaskill, T. (2009a). *An introduction to angel investing - a guide to investing in early stage entrepreneurial ventures*. Breakthrough Publications.
- McKaskill, T. (2009b). *Invest to exit - A pragmatic strategy for angel and venture capital investors*. Breakthrough Publications.
- Mollick, E., & Robb, A. (2016). Democratizing innovation and capital access: The role of crowdfunding. *California Management Review*, 58(2), 72–87. <https://doi.org/10.1525/cmr.2016.58.2.72>
- Morales-Alonso, G., Vila, G., Lemus-Aguilar, I., & Hidalgo, A. (2020). Data retrieval from online social media networks for defining business angels' profile. *Journal of Enterprising Communities*, 14(1), 57–75. <https://doi.org/10.1108/JEC-10-2019-0095>
- Morandin, G., Bergami, M., & Bagozzi, R. P. (2006). The hierarchical cognitive structure of entrepreneur motivation toward private equity financing. *Venture Capital*, 8(3), 253–271. <https://doi.org/10.1080/13691060600748546>
- Morrisette, S. G. (2006). The profile and motivations of bank angel investors. *Frontiers of Entrepreneurship Research*, 26(2), 3–28.
- Morrisette, S. G. (2007). A profile of angel investors. *The Journal of Private Equity*, 10(3), 52–66. <https://doi.org/10.3905/jpe.2007.686430>
- Mulcahy, D. (2005). *Venturing forward - a practical guide to raising equity Capital in Ireland*. Oak Tree Press.
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 115–143. <https://doi.org/10.1002/job.2374>
- Murnieks, C. Y., & Mosakowski, E. M. (2007). Who am I? Looking inside the “entrepreneurial identity. *Frontiers of Entrepreneurship Research*, 27(5), 1–14.
- OECD. (2011). *Financing high-growth firms the role of angel investors*. OECD Publishing.
- Pasewark, W. R., & Riley, M. E. (2010). It's a matter of principle: The role of personal values in investment decisions. *Journal of Business Ethics*, 93(2), 237–253. <https://doi.org/10.1007/s10551-009-0218-6>
- Persky, J. (1995). Retrospectives: The ethology of homo economicus. *Journal of Economic Perspectives*, 9(2), 221–231. <https://doi.org/10.1257/jep.9.2.221>
- Pervin, L. A. (1989). *Goal concepts in personality and social psychology*. Psychology Press.
- Peterson, R., & Murtha, F. F. (2010). *Market psych. How to manage fear and build your investor identity*. John Wiley & Sons. <https://doi.org/10.1002/9781118267875>
- Pieters, R., Baumgartner, H., & Allen, D. (1995). A means-end chain approach to consumer goal structures. *International Journal of Research in Marketing*, 12(3), 227–244. [https://doi.org/10.1016/0167-8116\(95\)00023-U](https://doi.org/10.1016/0167-8116(95)00023-U)
- Pike, S. D. (2011). Destination positioning opportunities using personal values: Elicited through the repertory test with laddering analysis. *Tourism Management*, 33(1), 100–107. <https://doi.org/10.1016/j.tourman.2011.02.008>
- Politis, D. (2008). Business angels and value added: What do we know and where do we go? *Venture Capital*, 10(2), 127–147. <https://doi.org/10.1080/13691060801946147>
- Politis, D., & Landstrom, H. (2002). Informal investors as entrepreneurs - the development of an entrepreneurial career. *Venture Capital*, 4(2), 78–101. <https://doi.org/10.1080/13691060210816>
- Pompian, M. M. (2006). *Behavioral finance and wealth management - How to build optimal portfolios that account for investor biases*. John Wiley & Sons, Inc.
- Pompian, M. M. (2012). *Behavioral finance and investor types - managing behavior to make better investment decisions*. John Wiley & Sons. <https://doi.org/10.1002/9781119202417>
- Preston, S. (2004). *A guidebook to developing the right angel organization for your community*. Ewing Marion Kauffman Foundation.
- Puustinen, P., Kuusela, H., & Rintamäki, T. (2012). Investment service providers gaining competitive advantage by focusing on consumers varying investment goals. *Journal of Financial Services Marketing*, 17(3), 191–205. <https://doi.org/10.1057/fsm.2012.17>
- Puustinen, P., Maas, P., & Karjaluoto, H. (2013). Development and validation of the Perceived Investment Value (PIV) scale. *Journal of Economic Psychology*, 36, 41–54. <https://doi.org/10.1016/j.joep.2013.02.009>
- Ramadani, V. (2012). The importance of angel investors in financing the growth of small and medium sized enterprises. *The International Journal of Academic Research in Business & Social Sciences*, 2(7), 306–322.

- Redhead, K. (2008). *Personal finance and investments - a behavioural finance perspective*. Routledge.
- Reynolds, T. J., & Gutman, J. (1988). Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research*, 28(1), 11–31. <https://doi.org/10.1017/CBO9781107415324.004/>
- Riding, A. L. (2008). Business angels and love money investors: Segments of the informal market for risk capital. *Venture Capital*, 10(4), 355–369. <https://doi.org/10.1080/13691060802351222>
- Riley, A., & Burke, P. (1995). Identities and self-verification in the small group. *Social Psychology Quarterly*, 58(2), 61–73. <https://doi.org/10.2307/2787146>
- Rose, D. S. (2014). *Angel investing*. John Wiley & Sons. [https://doi.org/10.1016/S0022-3913\(12\)00047-9](https://doi.org/10.1016/S0022-3913(12)00047-9)
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- San José, A., Roure, J., & Aernoudt, R. (2005). Business angel academies: Unleashing the potential for business angel investment. *Venture Capital*, 7(2), 149–165. <https://doi.org/10.1080/13691060500063392>
- Schiefelbein, P. N. (2016). *What about companies matters to share investors? An exploratory study of Australian institutional and individual investor preferences* [Unpublished Master Thesis]. Queensland University of Technology.
- Severinsen, R. A., Dybvik, L., & Ragnøy, M. M. (2012). *Business Angels & Non-Financial Contributions: from value adding activities to realized valuable output* [Unpublished Master Thesis]. NTNU Trondheim Norwegian University of Science and Technology.
- Shane, S. (2005). *Angel investing: A report prepared for the federal reserve banks of Atlanta*. Philadelphia and Richmond.
- Shane, S. A. (2009). *Fool's gold: The truth behind angel investing in America*. Oxford University Press.
- Shleifer, A. (2000). *Inefficient markets - an introduction to behavioral finance*. Oxford University Press. <https://doi.org/10.1093/0198292279.001.0001>
- Sullivan, M. K. (1991). Entrepreneurs as informal investors: Are there distinguishing characteristics? *Frontiers of Entrepreneurship Research*, 15(1), 456–467.
- Sullivan, M. K., & Miller, A. (1996). Segmenting the informal venture capital market: Economic, hedonistic, and altruistic investors. *Journal of Business Research*, 36(1), 25–35. <https://doi.org/10.1016/0148-29639500160-3>
- Tenca, F., Croce, A., & Ughetto, E. (2018). Business Angels research in entrepreneurial finance: A literature review and a research agenda. *Journal of Economic Surveys*, 32(5), 1384–1413. <https://doi.org/10.1111/joes.12224>
- Thaler, R. H. (2000). From homo economicus to homo sapiens. *Journal of Economic Perspectives*, 14(1), 133–141. <https://doi.org/10.1257/jep.14.1.133>
- Touré-Tillery, M., & Fishbach, A. (2011). The course of motivation. *Journal of Consumer Psychology*, 21(4), 414–423. <https://doi.org/10.1016/j.jcps.2011.04.004>
- Townsend, D. M., & Hunt, R. (2019). Demand-side perspectives on the democratization of finance through crowdfunding: Opportunities and challenges for early-stage finance research. In H. Landström, A. Parhankangas, & C. Mason (Eds.), *Handbook of research on crowdfunding* (pp. 165–189). Edward Elgar Publishing.
- Van Osnabrugge, M. (1998). *The financing of entrepreneurial firms in the UK: A comparison of Business Angel and Venture Capitalist Investment Procedures* [Unpublished PhD Thesis]. Oxford University.
- Van Osnabrugge, M. (2000). A comparison of business angel and venture capitalist investment procedures: An agency theory-based analysis. *Venture Capital*, 2(2), 91–109. <https://doi.org/10.1080/136910600295729>
- Wiltbank, R., & Boeker, W. (2007). *Returns to angel investors in groups* (No. <http://ssrn.com/abstract=1028592>). Retrieved from <http://ssrn.com/abstract=1028592>
- Yang, Y., Xie, G., & Xie, J. (2017). Mining important nodes in directed weighted complex networks. *Discrete Dynamics in Nature and Society*, 2017, 1–7. <https://doi.org/10.1155/2017/9741824>



### Appendix 3. Business angels' goals implication matrixes – Goals identified by entrepreneurs (mind map)

Business angels' goals identified by entrepreneurs		OUT	IN	10	7	8	3	4	4	4	1	0	0	5	14	8	4	1	2	7	20	3	8	13	15	8	3	14	2	7	0	4	2	8	2	4	8	4	5	1	13	4										
		Abstractness	Goal number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40									
to develop oneself	71%	4	1																																																	
to learn	41%	10	3	3	2	1																																														
to share knowledge and experience	42%	11	3	1																																																
to invest conveniently	43%	4	4	1																																																
to grab the opportunity	50%	4	5	1																																																
to reinvest	80%	1	6																																																	
to invest in new business	19%	17	7	1	1	1	1																																													
to plan my career	ignored	0	8																																																	
to benefit from public incentives	ignored	0	9																																																	
to have a great EXIT	0%	1	10																																																	
to get a high ROI	23%	17	11	1		1	1	1																																												
to make money	47%	16	12			1	1																																													
to manage risk	44%	10	13			1	1																																													
to have challenging experiences	31%	9	14	1																																																
to have a hobby	33%	2	15																																																	
to have fun	33%	4	16																																																	
to fit basic needs	50%	2	17																																																	
to awake the angel identity	47%	8	18																																																	
to improve one's self-esteem	67%	10	19			1																																														
to take care of my family	75%	1	20																																																	
to live a pleasant life	57%	6	21																																																	
to feel fulfilled	72%	5	22	1																																																
to be successful	75%	5	23				1																																													
to be happy	89%	1	24																																																	
to be active	50%	3	25																																																	
to be updated	58%	10	26	3	1																																															
to do networking	29%	5	27																																																	
to socialize with great people	58%	5	28	1																																																
to interact with other angels	0%	1	29																																																	
to create an entrepreneurial legacy	67%	2	30																																																	
to be part of something extraordinary	67%	1	31																																																	
to help startups grow	47%	9	32			2																																														
to be involved with startups	29%	5	33	1																																																
to be part of entrepreneurship	25%	12	34	1																																																
to support innovation	42%	11	35				1																																													
to mentor entrepreneurs	44%	5	36																																																	
to express benevolence	50%	5	37																																																	
to support own country	50%	1	38																																																	
to make a better world	76%	4	39																																																	
to give back to society	44%	5	40																																																	