

Challenges of business angels: does career matter?

Rui Falcao

*Department of Economics, Management, Industrial Engineering and Tourism,
University of Aveiro, Aveiro, Portugal*

Antonio Carrizo Moreira

*Department of Economics, Management, Industrial Engineering and Tourism,
University of Aveiro, Aveiro, Portugal;*

*GOVCOPP—Research Unit on Governance, Competitiveness and Public Policies,
University of Aveiro, Aveiro, Portugal;*

*INESCTEC—Institute for Systems and Computer Engineering,
Technology and Science, Porto, Portugal;*

*NECE-UBI—Research Center for Business Sciences, Universidade da Beira Interior,
Covilhã, Portugal and*

CICEE—Research Center in Business and Economics, UAL, Lisbon, Portugal, and

Maria João Carneiro

*Department of Economics, Management, Industrial Engineering and Tourism,
University of Aveiro, Aveiro, Portugal and*

*GOVCOPP—Research Unit on Governance, Competitiveness and Public Policies,
University of Aveiro, Aveiro, Portugal*

Abstract

Purpose – The business angels market dramatically changed the modus operandi and nature of business angels' activity, evolving from lone investors to angel groups managed professionally. This paper aims to analyze the impact of angel perceived career development on angel satisfaction and, consequently, on their intention to continue investing.

Design/methodology/approach – A model was tested through covariance-based structural equation modeling (SEM) using AMOS based on data collected from 336 business angels from seven European countries.

Findings – The results highlight that: the perception of personal development is a decisive factor in pursuing the career of business angel; personal development has a higher explanatory power in angel career development than fostering innovation; and the perception of career development has positive impacts on angels' job satisfaction and reinvestment intention. The paper ends with implications and guidelines for angels, gatekeepers and entrepreneurs, which may increase satisfaction with the angel experience and contribute to enriching business angel work.

Research limitations/implications – Cross-sectional self-reported data were used to analyze the results of this study.

Originality/value – To paper extends the body of knowledge of business angels' perceived career development, with implications for business angels, which may increase satisfaction with angel experience and, therefore, contribute to enhancing business angels' activity. Thus, this study provides a consistent reference for forthcoming studies regarding the career of business angels and their relationship with entrepreneurs.

Keywords Angel investor, Business angel, Business angel career, Career development, Angel job satisfaction, Reinvestment intention, Personal development, Innovation support

Paper type Research paper



1. Introduction

In contemporary societies, career and occupational activities hold a central role in individuals' lives (Cardador and Caza, 2012; Guichard, 2005). Work, often considered a core aspect of personal identity (Judge and Klinger, 2008), serves diverse purposes, such as earning income, maintaining dignity, ensuring subsistence for oneself and family, contributing through volunteer work, building a public self-identity, fostering personal growth, and structuring one's life (Lent and Brown, 2013; Thoits, 2012; Thompson and Bunderson, 2019).

Business angels play a vital role in venture financing, serving not only as a vital source of capital, but also bringing valuable experience from their roles as former executives and entrepreneurs (Cavallo *et al.*, 2019). They also contribute by providing advice and networking within the entrepreneurial ecosystem (Harrison and Mason, 2019; Mason *et al.*, 2016). Despite widespread concern about business angels' role in early-stage investments (EBAN, 2019; Miller *et al.*, 2019), limited research has been conducted on business angels' work and career. One possible reason for this is that for many years the angel market was considered invisible, informal, inefficient and misunderstood (Mason, 2006; Wetzel, 1983). From the early days of angel activity, angel investing was perceived by many, particularly by venture capitalists (VCs), as a hobby suited only to amateurs (Berns and Schnatterly, 2015), angel investing has shifted towards a more professional stance, with business angels adopting sophisticated approaches, working in managed structured groups and contributing to the improved organization and formalization of the angel market (Carpentier and Suret, 2015; Mason *et al.*, 2019). To mitigate risks associated with their activities, including competition, information asymmetry, lack of entrepreneurial capabilities and misalignment with the entrepreneurs' objectives, business angels have implemented strategies such as enhancing formal contracts, generating more formal reports and initiating mentoring programs that involve sharing knowledge and building networks with entrepreneurs (Söderblom *et al.*, 2016). Hence, angel investing has evolved from being a "nice hobby" for wealthy individuals (Hill and Power, 2002), to becoming a new step in the "entrepreneurial career" (Politis and Landstrom, 2002) and a viable professional career option in the present day (Rose, 2014).

Opportunity recognition, self-efficacy and entrepreneurial intentions are pivotal drivers in both the entrepreneurial process and the pursuit of entrepreneurial careers (Hassan *et al.*, 2020). Moreover, entrepreneurs require self-confidence and alertness to identify innovative opportunities and establish ventures (Santos and Liguori, 2019). Initiating business angel activity shares similarities with starting an entrepreneurial venture, driven by outcome expectations and personal goals, with self-efficacy representing an individual's commitment to a specific path or behavior (Santos and Liguori, 2019). Complementarily, outcome expectations result from an individual's expectations of achieving results aligned with future expectations (Okolie *et al.*, 2021).

The social cognitive career theory (SCCT), rooted in three main elements (Bandura, 1986; Lent *et al.*, 1994) – self-efficacy, outcome expectations and personal goals – posits that a business angel's career development is shaped by contextual, individual and behavioral interactions (Pham and Le, 2023).

The SCCT incorporates abilities, interests, previous experiences and contextual factors influencing career development (Santos and Liguori, 2019), aligning with the goals of business angels (Falcão *et al.*, 2023). While the importance of entrepreneurial intentions in entrepreneurial activities is acknowledged (Martin *et al.*, 2013), business angels' outcome expectation regarding personal career development remain unknown. The business angel environment, coupled with limited research on business angels' careers, prompts reflection on how angels perceive their career development. To the authors' knowledge, no research examines, within the scope of business angels, the impact of perceived career development, defined by angel personal development and innovation support, on angel job satisfaction, and subsequently, the influence of satisfaction on reinvestment intentions. This study aims to advance knowledge in this context by proposing and testing a model that analyzes these

impacts, exploring angel activity from an individual career perspective and delving into the motives of angel work and their relevance to the angel career development.

After this introduction, the literature review discusses and anchors the perception of a career as an angel, covering personal development and innovation support, in [Section 2](#), and the consequences of angels' personal development, namely their job satisfaction and reinvestment intention, in [Section 3](#). [Section 4](#) describes the methods used in this research. [Section 5](#) presents the main results. Finally, [Sections 6](#) and [7](#) present the discussion and conclusions.

This study makes two key theoretical contributions. First, it identifies the dimensions that underlie business angels' perception of their angel career development. Second, it examines the impact of this perception on both satisfaction and, consequently, reinvestment intentions. Managerially, the paper offers guidelines for enhancing business angels' perceptions of career development, thereby potentially increasing their satisfaction and future reinvestment intentions.

2. The perception of an angel career

Recent research suggests angel investing is emerging as a professional career path ([Rose, 2014](#)), characterized by informal, experience-based learning ([Botelho et al., 2023](#)). An investor's prior career significantly influences their decision to become an angel investor ([Morales-Alonso et al., 2020](#)) and can even impact venture performance and funding ([Blaseg and Hornuf, 2024](#)). [Schein et al. \(2023\)](#) further highlight the evolving nature of career perception, differentiating between external (formal roles) and internal (experiential learning) career development. Recent decades have witnessed significant shifts in how individuals perceive their careers ([Callanan et al., 2017](#); [Supeli and Creed, 2016](#)).

Contemporary career theory emphasizes life trajectory design, where individuals integrate career aspirations into their broader life goals ([Lysova et al., 2019](#); [Savickas, 2012](#); [Savickas et al., 2009](#)). Social cognitive career theory (SCCT) posits career choice results from self-efficacy, outcome expectations, and personal goals ([Lent et al., 2002](#)). This aligns with the view of a business angel career as a long-term learning process addressing both personal and investment goals ([Lent et al., 2002](#); [Savickas et al., 2009](#)). Emerging focus areas like impact investing and social change further shape business angel activity ([Harrison, 2017](#)). Recent research highlights symbolic angel goals (personal development, supporting innovation) as key drivers of angel investing and potentially influencing career perceptions ([Falcão et al., 2023](#)).

2.1 Angel's personal development

[Donati and Watts \(2005\)](#) define personal development as a lifelong career process with evolving goals, fostering alignment with career aspirations. Meaning-oriented learning internalizes knowledge and connects personal life and career goals ([Meijers and Lengelle, 2015](#)). Intrinsic goal achievement positively impacts well-being, vitality, performance and job satisfaction ([Martin and Bartscher-Finzer, 2014](#)). Broadly, it encompasses personal growth across knowledge, attitudes and skills influencing the whole person ([Irving and Williams, 1999](#); [Johns, 2012](#)).

[Politis and Landstrom \(2002\)](#) identify corporate professionals transitioning to angel investing, often setting entrepreneurial goals beforehand setting goals to enter the entrepreneurial world before fully engaging in angel investing. Personal career goals include learning investment skills with other angels ([Smith et al., 2010](#)), networking ([Bonnet et al., 2022](#)), and staying technologically updated ([Rose, 2014](#)). A learning curve is essential for investment success ([Norberg, 2007](#); [Wirtz et al., 2017](#)). Angels learn through formal learning courses managed by angel networks or academies and less formal processes from investing practice with other angels ([Mason and Harrison, 2002](#); [San José et al., 2005](#)). Much of the

research on angel learning draws from adaptations of the experiential learning theory (Kolb, 2015). Sharing experiences and viewpoints is indispensable for an effective personal development process (Scaringella, 2010). Angel groups are adequate contexts for experiential learning through shared practices (Smith *et al.*, 2010), encouraging co-investing, interaction and socialization to discuss investment opportunities (Botelho *et al.*, 2023).

Angel activity thrives on dynamic events (e.g. summits, demo days) facilitating connections with experienced angels and entrepreneurs globally (online/offline). Pitching and meeting founders offer opportunities for advice exchange and personal development (self-actualization) (Fili, 2014; Paul and Whittam, 2010). Pitching and meeting founders offer opportunities for advice exchange and personal development (self-actualization). Furthermore, the investor-investee relationship fosters mutual development (De Clercq and Manigart, 2007; Wach *et al.*, 2020). As Rose (2014, p. 37) states, “it’s very much a two-way street” where both parties learn.

2.2 Innovation support

Business angels serve as a crucial financial source for supporting young, innovative firms (Block *et al.*, 2018; EBAN, 2019), bridging the gap between scientific innovation and entrepreneurship (CSES, 2012; Riding, 2008). Fostering innovation is a fundamental investment drive of business angels (McKaskill, 2009b) and one of the most important reasons why individuals become angels (Rose, 2014). The European Commission confirms the angels’ role in funding innovation, with 93% of their investments directed toward firms engaged in innovation processes (BAF, 2017). Nearly half of the start-ups invested in have high or very high levels of intellectual property protection (Mason and Botelho, 2014). The size and impact of innovation are fundamental in capturing business angels’ attention (Hill and Power, 2002; McKaskill, 2009a) and a definitive criterion for angel investment (Maxwell *et al.*, 2011). Angels perceive innovation as the main driver that differentiates and fuels high-growth start-ups (McKaskill, 2009b), leading to higher growth and more payoffs for innovative firms (Townsend and Busenitz, 2015). Angels invest in innovation because, as former entrepreneurs, they recognize the importance of innovation in providing creative solutions in unpredictable, changing environments. Moreover, innovativeness among business angels is positively related to their performance (Lindsay, 2004). Falcão *et al.* (2023) also reveal that supporting innovation contributes to business angels feeling fulfilled.

2.3 Theoretical support to the SCCT

The SCCT, based on self-efficacy, outcome expectations and personal goals (Bandura, 1986; Lent *et al.*, 1994), aligns with the perspective that business angels’ perception of career development is rooted in personal development and innovation support. SCCT aligns with the concept of personal development, specifically the lifelong learning process, as business angels engage in meaning-oriented learning, internalizing knowledge and aligning personal life and career goals. This alignment extends to the goals of the firms they invest in. Through the sharing of experiences, practices, and viewpoints, business angels facilitate effective personal and business decision-making, nurturing investment opportunities. Activities supporting innovation also align with the SCCT, since business angels, as crucial financial supporters of new ventures, view innovation as a key driver of differentiation strategies fueling high-growth for start-ups. The importance of innovation is rooted in prior experiences in investing in new ventures. Consequently, one can assert that the holistic nature of personal development and the pivotal role of business angels in fostering innovation are important drivers of their career development.

3. Consequences of personal career development

3.1 Business angel satisfaction

Benjamin and Margulis (2005, p. 176) metaphorically suggest that angels “buy their last job” by investing in start-ups. Angels, as hands-on investors, co-create value and contribute to the start-up development (Politis, 2016). This added value is important for both entrepreneurs and angels, serving as a great source of personal satisfaction (White and Dumay, 2017). Furthermore, opportunities for acquisition of new skills and professional knowledge are primary job motivators (Alshmemri *et al.*, 2017) fostering the perception of personal growth that enhances self-actualization, and the realization of one’s full potential (Šverko, 2001). Specifically, personal development emerges as the strongest predictor of managers’ overall job satisfaction, surpassing variables like compensation, superior-subordinate interaction, or organizational context. These conclusions extend to business angels in their investment activities (Bergmann, 1981).

Outside the context of business angels, research indicates a strong relationship between the perception of personal progress and development and overall job satisfaction (Bergmann, 1981). Chen *et al.* (2004) claim that the gap between career needs and development programs in innovation activities significantly predicts job satisfaction. They conclude that the larger the gap between the proposed plans and individual needs, the lower the satisfaction level. Adekola (2011) also supports a positive link between career development and job satisfaction in the banking sector. Also, job satisfaction has been positively associated with the protean approach to career (Blau *et al.*, 2001; Stroh and Brett, 1994), emphasizing the individual responsibility for personal development and career management (Hall, 2004). The protean career approach fits well with the independent nature of business angels, who invest their own money where and when they want, being responsible for their own investment decisions (Sohl, 2007). The previous arguments lead us to formulate the following hypothesis.

- H1. There is a positive relationship between angel perceived career development and satisfaction with the angel job.

3.2 The reinvestment intention

The angel investing market is diverse and heterogeneous (Mason *et al.*, 2016). Angels invest higher amounts in a few start-ups; others create portfolios and invest smaller amounts in many. Some invest through groups, networks or syndicates, while others invest alone (Paul and Whittam, 2010). Some invest at a very early-stage, even co-founding the start-up (Festel and De Cleyn, 2013), while others prefer later, more mature stages (Lahti and Keinonen, 2016). Some angels invest in specific sectors, while others diversify in cross-industrial sectors (Antretter *et al.*, 2020). Finally, some angels reserve money for follow-on investments (Rose, 2014), while others prefer initial (one-shot) investments and allow other investors to take over in later stages (Mason *et al.*, 2019). Clearly, angel behavior does not always follow a perfectly rational pattern in selecting investing opportunities (Bammens and Collewaert, 2014).

Investment strategies seem to be influenced by personal and internal factors, including risk profile, angel background, and deal circumstances (Huang *et al.*, 2017). Satisfaction with financial performance and successful exits are essential components of reinvestment intention (Shane, 2009). Therefore, one of the most critical determinants of reinvestment intention is likely the angel’s satisfaction with their current role, influencing their decision to continue investing if satisfied or reduce interest and seek exit in case of dissatisfaction (Collewaert, 2009, 2012; Collewaert and Fassin, 2011). Consequently, reinvesting may happen as a natural consequence of an overall satisfactory angel experience, not necessarily driven by the financial exit perspective. Satisfaction is a reliable predictor of repurchase intention in the stock market (Puustinen *et al.*, 2013). Shim *et al.* (2008) support that satisfaction in the real estate industry positively affects reinvestment intention, suggesting that higher satisfaction

leads to higher reinvestment intention. Thus, it can be hypothesized that if individuals perceiving progress in their angel careers and maintaining satisfactory relationships with entrepreneurs, angel groups, and their angel job are more likely to reinvest, even without achieving successful exits. Accordingly, the following hypothesis is proposed.

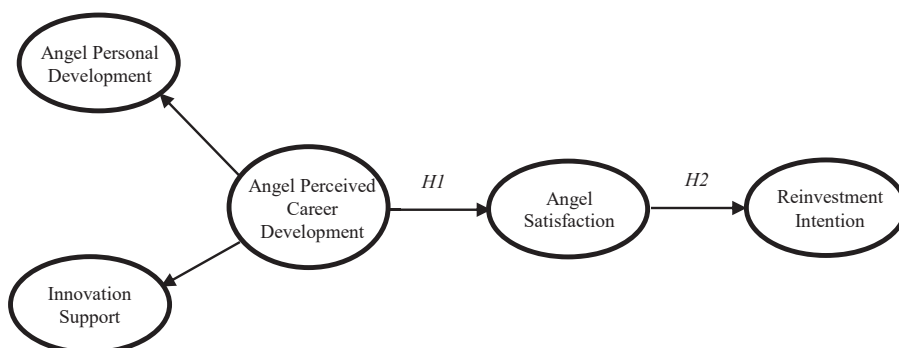
H2. There is a positive relationship between the angel job satisfaction and reinvestment intention.

The conceptual model is presented in [Figure 1](#).

4. Research methods

An international questionnaire survey was undertaken to test the hypotheses and validate the conceptual model. The quantitative online survey was carried out to test and validate an angel perceived career development (APCD) scale among European angels. The questionnaire also included questions measuring the satisfaction of business angels and their reinvestment intention, as well as items to characterize the business angels' socio-demographic profile and experience as business angels. Backed by a qualitative study, involving interviews with 53 business angels and 35 entrepreneurs to identify goals as reasons for angel investing ([Falcão et al., 2023](#)), the APCD scale was built selecting goals identified by the angels that best fit the concepts of personal and professional development (e.g. [Donati and Watts, 2005](#); [Irving and Williams, 1999](#); [Johns, 2012](#)) highlighted in the personal development research field. They are related to the ways in which individuals learn and change ([Johns, 2012](#)). The items related with supporting innovation already came from the angels qualitative study ([Falcão et al., 2023](#)) and have support in the angel/innovation literature (e.g. [Lukes and Stephan, 2017](#); [McKaskill, 2009a](#); [Politis and Landstrom, 2002](#); [Rose, 2014](#); [Smith et al., 2010](#)). The APCD scale included in the questionnaire of the present study encompasses a set of eight items representing angels' personal development goals (see items in [Table 2](#)) and five items related to innovation activities that are crucial to business angels' activities (see items in [Table 2](#)). The six items of angel satisfaction are based on [Duffy et al. \(2012\)](#) and [Hmieleski and Corbett \(2008\)](#). The eight items of reinvestment intention are based on [Puustinen et al. \(2013\)](#). The questionnaire was based on a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7).

The survey questionnaire assessed business angels' socio-demographic profile to obtain information about age, gender, and country of residence. It also included questions related to the experience of the respondent as a business angel, specifically concerning the following



Source(s): Figure created by author

Figure 1.
Conceptual model

<i>Gender</i>	<i>n</i>	<i>%</i>	<i>Investment region</i>	<i>%</i>	<i>Residence</i>	<i>%</i>
Female	50	14.9	only in the country of residence	47.0	Portugal	25.0
Male	286	85.1	only abroad	1.8	UK	17.9
<i>Age</i>	<i>n</i>	<i>%</i>	both in the country and abroad	51.2	Spain	14.9
20–30	6	1.8	<i>Number of invested start-ups</i>	<i>%</i>	Italy	14.9
31–40	46	13.7			France	11.3
41–50	125	37.2	Average: 11.23 Median: 6		Germany	10.7
51–60	123	36.6	[0–5]	44.2	Finland	5.4
61–70	28	8.3	[5–10]	21.5		
>70	8	2.4	[10–15]	13.7		
			[15–20]	8.4		
			>20	12.2		
<i>Investment (€) as BA</i>	<i>n</i>	<i>%</i>	<i>% time dedicated to BA activities</i>	<i>%</i>	<i>Experience (years)</i>	
<20K	47	14.0			Average	30.6%
[20–50K]	40	11.9			[5–10]	25.6
[50–100K]	57	17.0	<i>% angel time distribution</i>	<i>%</i>	[10–15]	11.9
[100–250K]	56	16.7			to angel groups	21.3
[250–500K]	57	17.0	to start-ups	46.6	>20	3.9
[500K–1M]	40	11.9	To the ecosystem	32.1		
[1–3M]	23	6.8				
>3M	16	4.8				

Table 1.
Business angels' characteristics

Note(s): *n* = 336
Source(s): Table created by author

Table 2.
Dimensionality, reliability, and convergent validity statistics

			Standardized loadings
Apd1: Good way to develop oneself	←	APD	0.738
Apd2: Encourages knowledge sharing	←	APD	0.864
Apd3: Keeps me updated	←	APD	0.883
Apd4: Develops my networking	←	APD	0.820
Apd5: Helps to meet extraordinary people	←	APD	0.802
Apd6: Facilitates socialization with other angels	←	APD	0.713
Innov1: A way to foster innovation	←	InnoSupp	0.871
Innov2: Brings about new things to the world	←	InnoSupp	0.879
Innov3: Gets me close to new business ideas and new people	←	InnoSupp	0.812
Innov4: Invest to support technological evolution	←	InnoSupp	0.812
ReInv1: Intend to continue to invest my know-how as an angel investor	←	Reinvest	0.842
ReInv2: Intend to continue to invest my reputation as an angel investor	←	Reinvest	0.963
ReInv3: Intend to continue to invest my personal network as an angel investor	←	Reinvest	0.940
AJS1: Enthusiastic about being an angel investor	←	AngSat	0.854
AJS2: Each day of work as an angel investor seems like the time flies	←	AngSat	0.710
AJS3: Find real enjoyment being an angel investor	←	AngSat	0.906
AJS4: Being an angel investor is rather pleasant	←	AngSat	0.849
AJS5: All in all, I'm satisfied with the work I do as an angel investor	←	AngSat	0.794

Note(s): $\chi^2/df = 2.426$; Incremental Fit Index (IFI): 0.963; Tucker-Lewis Index (TLI): 0.956; Comparative Fit Index (CFI): 0.963; SRMR: 0.0371; Root Mean Square Error of Approximation (RMSEA): 0.065
Source(s): Table created by author

issues: (1) number of years of business angel experience; (2) number of start-ups invested in; (3) amount invested in the scope of business angel activities; (3) geographical area where investments are made; (3) the percentage of time dedicated to business angel activities; and (4) of the time devoted to the business angel activity, the percentage of time dedicated to several aspects – angel groups, start-ups and the business angel ecosystem.

Business angels were identified through the personal angel networking of one of the authors (experienced business angel) and information provided by the Portuguese Federation of Business Angels, affiliated with the European Business Angels Network (EBAN). A database was established with the collected information, and 3,870 emails were sent to business angels across seven European countries: Portugal, the United Kingdom, Spain, Italy, France, Germany and Finland. The response rate was 12%, resulting in 474 answers. These countries were chosen due to their intense and visible business angel activity, providing a richer understanding of angel career perception. One hundred and thirty-eight questionnaires were incomplete, leaving 336 complete responses, yielding a final response rate of 9% (according to the prepared database). The survey remained online for two months.

Table 1 shows the socio-demographic characteristics of the sample. Males constitute 85% of the sample, with 74% falling within the 41–60 age range. The sample exhibits concentrated geographical representation from seven European countries. Respondents have an average of 7.6 years of angel experience (with more than 50% with less than 5 years of experience), dedicate 31% of their time to business angels activities, nearly 47% to start-ups and 21% to angel groups. On average, business angels invest in 11.23 start-ups; however, 44% of them invest in fewer than five start-ups. Moreover, the characteristics of business angels in this sample align with those of other studies; predominantly male (less than 20% are females), middle-aged, possessing business experience and investing an average amount of approximately €25.000 per start-up (Rose, 2014; Tenca *et al.*, 2018).

5. Results

Data analysis was conducted using SPSS and AMOS software. Confirmatory factor analysis (CFA) examined the psychometric properties of all analyzed constructs. AMOS 20 with maximum likelihood estimation was used to assess the model. Standardized loadings from CFA, following Hausman and Siekpe (2009), used a threshold value of 0.7 for factor loading scores to confirm convergent validity (Hair *et al.*, 2010). Tables 2 and 3 confirm the solution's dimensionality, construct reliability (CR), convergent validity and discriminant validity indicating a good fit. CR, average variance extracted (AVE) and factor loadings scores all pass accepted levels (factor loadings > 0.70; AVEs > 0.50; CR > 0.70), indicating acceptable measurement properties and convergent validity.

The measurement model reveals a good fit, as shown in Table 2, according to Hu and Bentler (1999). Correlations between constructs ranged from 0.541 to 0.748 (Table 3), within the recommended limit of 0.9 (Hair *et al.*, 2010).

Constructs	Cronbach's alpha	Ave	CR	APD	Reinvest	AngSat	InnoSupp
1. APD	0.910	0.649	0.917	<i>0.806</i>			
2. Reinvest	0.930	0.840	0.940	0.631	<i>0.917</i>		
3. AngSat	0.909	0.681	0.914	0.634	0.735	<i>0.825</i>	
4. InnoSupp	0.920	0.712	0.908	0.748	0.541	0.568	<i>0.844</i>

Note(s): The italic scores are the square root AVE; the off-diagonal scores are the correlations among constructs

Source(s): Table created by author

Table 3.
Discriminant validity:
squared root AVEs
versus construct
correlations

APD and InnoSupp were verified by second-order factor analysis. The second-order APCD construct includes two first-order factors: (1) angel perceived development (APD); and (2) innovation support (InnoSupp). The chi-square of second-order CFA is 313.030, suggesting a good fit. Following [Marsh and Hocevar \(1985\)](#), the target-coefficient (T) statistically validates the existence of the second-order APCD construct [$T = \chi^2_{1st\ Order} / \chi^2_{2nd\ Order} = 0.99$]. Since the result exceeds the recommended value of 0.7 ([Segars and Grover, 1998](#)), the proposed second-order model is supported and business angels' perceived career development can be assessed by the two sub-dimensions proposed (APD and InnoSupp).

Following the measurement purification process, the consistency of the convergent and discriminant validities and the second-order construct validity, SEM modeling was used to test the hypotheses within the research model.

The structural model results are shown in [Figure 2](#), and all fit indices in the research model are acceptable ($\chi^2/df = 2.55$, IFI = 0.9598; TLI = 0.952; CFI = 0.959; SRMR = 0.0558; RMSEA = 0.068), according to [Hu and Bentler \(1999\)](#).

Angel perceived career development comprises two factors: angel personal development and innovation support. Perceived career development explains 45% of angel's satisfaction ([Figure 2](#)).

The SEM results, shown in [Figure 2](#), confirm the following hypotheses: **H1**: Angel perceived career development has a positive effect on angels satisfaction ($\beta = 0.671, p < 0.000, R^2 = 45\%$), **H2**: Angel job satisfaction has a positive effect on reinvestment intention ($\beta = 0.718, p < 0.000, R^2 = 52\%$). Gender was used as a control variable for the model, and it shows no statistical influence.

While business angels share common traits, they are a heterogeneous group with diverse investment profiles and backgrounds. These differences can include previous experience, investment amounts, target industries, start-up stage, investment style (solo or group/syndicate), and level of involvement ([Sørheim and Botelho, 2016](#)). Multigroup Analysis (MGA) was conducted to assess the differences between Heavy investors ($>€250k; n_2 = 136$) and Light investors ($<€250k; n_1 = 200$) and between Highly-experienced ($n_3 = 122$), with seven or more years of experience, and Novice business angels ($n_4 = 214$), with six or less years of experience, regarding the formation of perceived career development and its structural relation with angel satisfaction and reinvestment intention. Following [Jöreskog and Sörbom \(1993\)](#) guidelines, the MGA analysis categorized information into two distinct groups: Heavy and Light business angels, and Experienced and Novice business angels. A comprehensive examination of the structural model took place, wherein all paths were

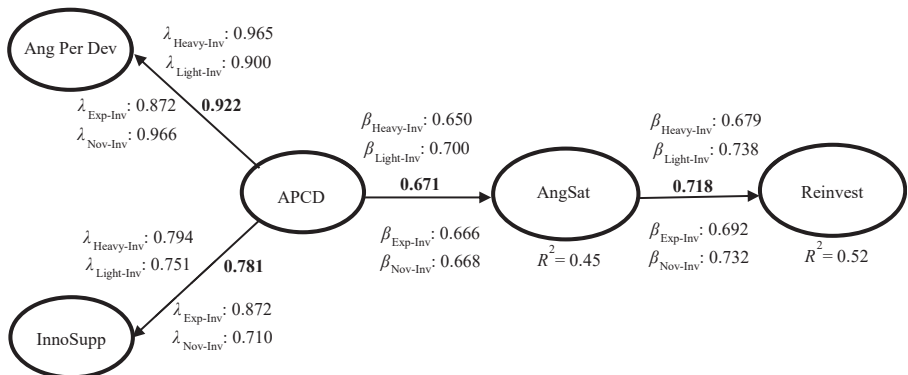


Figure 2.
Results of the
structural model

Source(s): Figure created by author

established with uniform regression weight across both groups. Subsequently, an additional round of path analysis was conducted, without restrictions on the model paths, allowing them to be freely estimated. Ultimately, we tested the significance of the effects of both groups using the chi-square difference test.

Figure 2 indicates no statistically significant differences between heavy and light investors across the structural model. The influence of perceived career development on angel satisfaction is similarly understood by both light and heavy investors ($\Delta\beta = 0.050$; $p = 0.904$), as is the influence of angel satisfaction on reinvestment intention ($\Delta\beta = 0.059$; $p = 0.977$). It can also be claimed that innovation support activities ($\Delta\lambda = -0.043$; $p = 0.125$) and angel support activities ($\Delta\lambda = -0.065$; $p = 0.119$) are similarly understood across the two groups. Complementarily, there are no statistically significant differences between novice and experienced investors regarding the relationship between perceived career development and angel satisfaction ($\Delta\beta = 0.02$; $p = 0.290$) and between angel satisfaction and reinvestment intention ($\Delta\beta = 0.040$; $p = 0.566$). However, the formation of perceived career development differs across the two groups, as the relationship between perceived career development and innovation support is more important for the experienced group of angels ($\Delta\lambda = 0.162$; $p = 0.003$) but not statistically different for angel support activities ($\Delta\lambda = 0.094$; $p = 0.533$).

6. Discussion and implications

The angel market has undergone significant changes recently (Mason *et al.*, 2019), challenging the traditional notion of investing solely for enjoyment due to increased professionalization. Angels are undergoing a transitional phase, prompting reflection on their role and career, with this research, focusing on business angels' internal career, built on Schein's concept.

This study highlights that innovation support is a relevant dimension in the perception of angel career development ($\lambda = 0.781$). Supporting innovative start-ups is inherent to angels' work, reflecting the essence of their investing activity (Block *et al.*, 2018; OECD, 2011; Rose, 2014). Angels, like entrepreneurs, exhibit an innovative orientation (Lindsay, 2004), aligning with expectations from business angels' role in supporting innovative start-ups.

Additionally, personal development emerges as another relevant dimension of business angels' perceived career development ($\lambda = 0.922$), rating higher than innovation support. Career development positively influences business angels' satisfaction, explaining 45% of this construct. Compared to angel literature, this underscores the importance of personal development in business angels' careers, aligning with career development trends (Meijers and Lengelle, 2015). Nowadays, the complexity of angel investing no longer aligns with the amateur and hobbyist perspective of earlier generations (Kerr *et al.*, 2014). Angel investing has evolved into a more professionalized reality, with a significant shift from the traditional stereotype of wealthy individuals investing for pleasure (McKaskill, 2009a). The majority of the estimated one million angels worldwide (EBAN, 2019) lack substantial funds, as highlighted by EBAN (2019), reporting an average annual investment of €21.5 K per individual angel. Our results support this trend, revealing that 42% of the European angels invest €100K or less, while only 11.6% invest over €1M (Table 1). Additionally, the current economic and political crisis is causing a contraction in the angel and VC market (Mason, 2020), making it crucial for start-ups to manage their funds judiciously. Successful angel activity now demands continuous self-actualization and learning (Farrell, 2005; Smith *et al.*, 2010), emphasizing the ongoing development of investor skills.

In an era marked by complexity and continuous change, career development is critical for business angel's success. Angel groups and organizations should foster creative environments for experiential learning, allowing business angels to tailor their career

plans to their needs and lifestyles. A genuine angel experience involves investing in innovative ventures, staying updated, pursuing personal development, promoting angel involvement and co-creating with entrepreneurs. Understanding angel careers requires a hands-on approach and proximity to the entrepreneurial world. It goes beyond mere financial considerations. Our data shows that angels dedicate significant time to start-ups (46.6%), angel groups (21.3%) and the entrepreneurial ecosystem (32.1%). Groups focusing solely on financial investment overlook the interaction and fulfillment derived from the entrepreneurial experience. Angel groups that promise a business angel experience but deliver a VC one diminish the personalized and authentic contributions angels can make to the entrepreneurial community and the ecosystem.

This research strongly supports the hypothesis that angel satisfaction ($\beta = 0.718$, $R^2 = 52\%$) significantly boosts their intention to reinvest. Lacking a stimulating angel career perspective leads to short-term disappointment, reduced investment and a higher likelihood of abandoning angel activities.

Reinvestment intention often hinges on successful exits, with angels often tying new investments to the recouping of previous ones (Shane, 2009). The lengthy time until an exit (seven to fifteen years) (Mahapatra, 2014) underscores angels' role as providers of "patient capital" (Harrison *et al.*, 2016; Lumme *et al.*, 1998). To sustain angel interest and motivation between exits, angel groups and gatekeepers should implement initiatives, like structured and professionalized processes, continuous experiential learning and fostering angel involvement in decision-making. These strategies enhance business angels' satisfaction, motivation to reinvest and commitment to developing a career as an angel.

The two MGAs confirm the model's consistency in the relationship between perceived career development, angel satisfaction, and reinvestment decisions. The results apply to both heavy and light investors, as well as novice and experienced business angels. While perceived career development is similarly understood by light and heavy investors, experienced angels show statistically significant differences in the importance they place on innovation support compared to their less experienced counterparts. This difference may be attributed to the accumulated experience and social interactions in investments and the broader relationships of business angels in the ecosystem.

7. Conclusions and future directions

There is growing awareness and evidence that a more professionalized and organized *modus operandi* among business angels is evolving in the market and impacting the business angel work. In this context, the present paper provides relevant theoretical and managerial contributions regarding the perception of the business angel's career. This research highlights the business angel career is not based on the traditional view of a step-by-step career plan and monthly remuneration: business angel's perceived career development is composed of two relevant dimensions – personal development and innovation support. Moreover, it shows that business angels' satisfaction is positively influenced by their perception of personal career development.

The findings have important implications, namely for the ecosystem that supports business angels. Results reveal the importance of implementing strategies that enhance the perception of career development among business angels, potentially leading to increased job satisfaction and greater investment in innovative start-ups. The emphasis on angel groups and ecosystems as conducive contexts for experiential learning aligns with the observational learning component of SCCT. The discussion on personal development emphasizes the importance of learning and changing knowledge, attitudes and skills, reflecting SCCT's emphasis on self-efficacy, as business angels engage in learning experiences to enhance their confidence and belief in their capabilities, as well as those involved in the ventures they invest in.

The dynamic nature of personal development goals, in which innovative activities over time seem to play an important role, aligns with SCCT's recognition of goal setting as a central aspect of career development. This research also emphasizes the social aspect of SCCT, where business angels are influenced by their interactions with others in their career environment, especially in the context of innovation support. As former entrepreneurs, they continue innovating as clearly depicted in the differences between novice and experienced business angels. Finally, the dynamic and social aspects depicted align well with the foundational principles of SCCT.

Achieving angel satisfaction involves offering business angels opportunities for personal development and innovation support. Business angels highly value socialization and learning opportunities as they provide possibility of developing new investment skills, contacting innovative people and reinforcing their feelings of progress. Taking into account that personal development has a higher impact on job satisfaction and reinvestment intention, it seems particularly important to provide business angels opportunities for investing and socialization through angel groups and ecosystems, enlarging the potential for receiving feedback. Angel groups can also enhance business angels' exposure to a broader start-up deal flow and increase opportunities to support innovation. This can be achieved through events and investment committees where angels can be abreast of new technologies by listening to other angels, sharing ideas, or even listening to pitches of new business ideas of entrepreneurs looking for business angels' support.

Despite providing important contributions, this study has limitations. The study analyzed the perceived personal career development, specifically its dimensions and impacts on angels' satisfaction and reinvestment intention. Future research should explore factors influencing the perception of career development, including the contributions of networks and formal groups of business angels.

Due to the limited number of business angels per country in our sample (representing six European countries), it was not possible to conduct multigroup analysis and compare investors across geographical boundaries. While the growing trend of angel co-investment and cross-border investments suggests potential for common practices across countries, our focus on six diverse European ecosystems imposes acknowledging potential contextual differences that are particular in each country (Mason *et al.*, 2022). Therefore, future research should consider additional contextual factors not addressed in this study, such as the stage of development of the invested start-up, target industries, and whether investments were made solo or through group/syndicates. Furthermore, future studies should include larger samples from each country to facilitate comparisons among business angels from different countries.

As this research was limited to European angels, future research could broaden its scope to different regions, countries and ecosystems to investigate potential variations in angel career perceptions. Examining gender as a variable affecting business angels' perceptions of career development could offer valuable insights. Finally, exploring the angel career as a calling to continue entrepreneurial endeavors and address societal challenges across genders, experience levels, and geographic origins of business angels presents a complex yet intriguing avenue for future research.

References

- Adekola, B. (2011), "Career management as correlates for career development and job satisfaction. A case study of Nigerian Bank employees", *Australian Journal of Business and Management*, Vol. 1 No. 2, pp. 100-112.
- Alshmemri, M., Shahwan-Akl, L. and Maude, P. (2017), "Herzberg's two-factor theory", *Life Science Journal*, Vol. 14 No. 5, pp. 12-16.

- Antretter, T., Sirén, C., Grichnik, D. and Wincent, J. (2020), "Should business angels diversify their investment portfolios to achieve higher performance? The role of knowledge access through co-investment networks", *Journal of Business Venturing*, Vol. 35 No. 5, 106043, doi: [10.1016/j.jbusvent.2020.106043](https://doi.org/10.1016/j.jbusvent.2020.106043).
- BAF (2017), *Understanding the Nature and Impact of Business Angels Funding*, European Commission, Brussels.
- Bammens, Y. and Collewaert, V. (2014), "Trust between entrepreneurs and angel investors: exploring positive and negative implications for venture performance assessments", *Journal of Management*, Vol. 40 No. 7, pp. 1980-2008, doi: [10.1177/0149206312463937](https://doi.org/10.1177/0149206312463937).
- Bandura, A. (1986), *Social Foundations of Thought and Action: A Social Cognitive Theory*, Prentice Hall, Englewood Cliff: NJ.
- Benjamin, G. and Margulis, J. (2005), *Angel Capital: How to Raise Early-Stage Private Equity Financing*, John Wiley & Sons, NJ.
- Bergmann, T. (1981), "Managers and their organizations: an interactive approach to multidimensional job satisfaction", *Journal of Occupational Psychology*, Vol. 54 No. 4, pp. 275-288, doi: [10.1111/j.2044-8325.1981.tb00068.x](https://doi.org/10.1111/j.2044-8325.1981.tb00068.x).
- Berns, J. and Schnatterly, K. (2015), "Angel investors: early firm owners", in Goranova, M. and Ryan, L.V. (Eds), *Shareholder Empowerment: A New Era in Corporate Governance*, Palgrave, New York, pp. 223-238.
- Blaseg, D. and Hornuf, L. (2024), "Playing the business angel: the impact of well-known business angels on venture performance", *Entrepreneurship: Theory and Practice*, Vol. 48 No. 1, pp. 171-204, doi: [10.1177/10422587231153603](https://doi.org/10.1177/10422587231153603).
- Blau, G., Merriman, K., Tatum, D. and Rudmann, S. (2001), "Antecedents and consequences of basic versus career enrichment benefit satisfaction", *Journal of Organizational Behavior*, Vol. 22 No. 6, pp. 669-688, doi: [10.1002/job.105](https://doi.org/10.1002/job.105).
- Block, J., Colombo, M., Cumming, D. and Vismara, S. (2018), "New players in entrepreneurial finance and why they are there", *Small Business Economics*, Vol. 50 No. 2, pp. 239-250, doi: [10.1007/s11187-016-9826-6](https://doi.org/10.1007/s11187-016-9826-6).
- Bonnet, C., Capizzi, V., Cohen, L., Petit, A. and 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*, Vol. 77, 101944, doi: [10.1016/j.jcorpfin.2021.101944](https://doi.org/10.1016/j.jcorpfin.2021.101944).
- Botelho, T., Harrison, R. and Mason, C. (2023), "Business angel investment as an informal learning process: does experience matter?", *British Journal of Management*, Vol. 34 No. 1, pp. 321-342, doi: [10.1111/1467-8551.12583](https://doi.org/10.1111/1467-8551.12583).
- Callanan, G., Perri, D. and Tomkowicz, S. (2017), "Career management in uncertain times: challenges and opportunities", *Career Development Quarterly*, Vol. 65 No. 4, pp. 353-365, doi: [10.1002/cdq.12113](https://doi.org/10.1002/cdq.12113).
- Cardador, M. and Caza, B. (2012), "Relational and identity perspectives on healthy versus unhealthy pursuit of callings", *Journal of Career Assessment*, Vol. 20 No. 3, pp. 338-353, doi: [10.1177/1069072711436162](https://doi.org/10.1177/1069072711436162).
- Carpentier, C. and Suret, J. (2015), "Angel group members' decision process and rejection criteria: a longitudinal analysis", *Journal of Business Venturing*, Vol. 30 No. 6, pp. 808-821, doi: [10.1016/j.jbusvent.2015.04.002](https://doi.org/10.1016/j.jbusvent.2015.04.002).
- Cavallo, A., Ghezzi, A., Dell'Era, C. and Pellizzoni, E. (2019), "Fostering digital entrepreneurship from startup to scaleup: the role of venture capital funds and angel groups", *Technological Forecasting and Social Change*, Vol. 145, pp. 24-35, doi: [10.1016/j.techfore.2019.04.022](https://doi.org/10.1016/j.techfore.2019.04.022).
- Chen, T., Chang, P. and Yeh, C. (2004), "A study of career needs, career development programs, job satisfaction and the turnover intentions of R&D personnel", *Career Development International*, Vol. 9 No. 4, pp. 424-437, doi: [10.1108/13620430410544364](https://doi.org/10.1108/13620430410544364).

- Collewaert, V. (2009), *The Pre- and Post- Investment Relationship between Angel Investors and Entrepreneurs: the Scope and Impact of Information Problems and Conflicts*, Universitait Gent, Faculty of Economics and Business Administration - Ghent University, Belgium.
- Collewaert, V. (2012), "Angel investors' and entrepreneurs' intentions to exit their ventures: a conflict perspective", *Entrepreneurship Theory and Practice*, Vol. 36 No. 4, pp. 753-779, doi: [10.1111/j.1540-6520.2011.00456.x](https://doi.org/10.1111/j.1540-6520.2011.00456.x).
- Collewaert, V. and Fassin, Y. (2011), "Conflicts between entrepreneurs and investors: the impact of perceived unethical behavior", *Small Business Economics*, Vol. 40 No. 3, pp. 635-649, doi: [10.1007/s11187-011-9379-7](https://doi.org/10.1007/s11187-011-9379-7).
- CSES (2012), *Evaluation of EU Member States' Business Angel Markets and Policies Final Report*, CSES, available at: www.cses.co.uk
- De Clercq, D. and Manigart, S. (2007), "The venture capital post-investment phase: opening the black box of involvement", in Landstrom, H. (Ed.), *Handbook of Research on Venture Capital*, Edward Elgar, Cheltenham, pp. 193-218.
- Donati, M. and Watts, M. (2005), "Personal development in counsellor training: towards a clarification of inter-related concepts", *British Journal of Guidance and Counselling*, Vol. 33 No. 4, pp. 475-484, doi: [10.1080/03069880500327553](https://doi.org/10.1080/03069880500327553).
- Duffy, R., Bott, E., Allan, B., Torrey, C. and Dik, B. (2012), "Perceiving a calling, living a calling, and job satisfaction: testing a moderated, multiple mediator model", *Journal of Counseling Psychology*, Vol. 59 No. 1, pp. 50-59, doi: [10.1037/a0026129](https://doi.org/10.1037/a0026129).
- EBAN (2019), *EBAN Statistics Compendium European Early Stage Market Statistics 2018*, EBAN, Brussels.
- Falcão, R., Carneiro, M.J. and Moreira, A.C. (2023), "Why do business angels invest? Uncovering angels' goals", *Cogent Business and Management*, Vol. 10 No. 2, 2234134, doi: [10.1080/23311975.2023.2234134](https://doi.org/10.1080/23311975.2023.2234134).
- Farrell, A.E. (2005), *Motivations, Behaviour and Cognition of Novice and Habitual Business Angels in New Firm Incorporations*, University of Nottingham, Nottingham.
- Festel, G.W. and De Cleyn, S.H. (2013), "Founding angels as an emerging subtype of the angel investment model in high-tech businesses", *Venture Capital*, Vol. 15 No. 3, pp. 261-282, doi: [10.1080/13691066.2013.807059](https://doi.org/10.1080/13691066.2013.807059).
- Fili, A. (2014), "Mentoring the CEO or Mentoring the ROI? The Business Angel's Interrole Conflict in the Venture Relationship", No. 2014:07, available at: <http://www.diva-portal.org/smash/get/diva2:758324/FULLTEXT01.pdf>
- Guichard, J. (2005), "Life-long self-construction", *International Journal for Educational and Vocational Guidance*, Vol. 5 No. 2, pp. 111-124, doi: [10.1007/s10775-005-8789-y](https://doi.org/10.1007/s10775-005-8789-y).
- Hair, J., Black, W., Babin, B. and Anderson, R. (2010), *Multivariate Data Analysis: A Global Perspective*, Pearson Education, Upper Saddle River, NJ.
- Hall, D. (2004), "The protean career: a quarter-century journey", *Journal of Vocational Behavior*, Vol. 65 No. 1, pp. 1-13, doi: [10.1016/j.jvb.2003.10.006](https://doi.org/10.1016/j.jvb.2003.10.006).
- Harrison, R.T. (2017), "The internationalisation of business angel investment activity: a review and research agenda", *Venture Capital*, Vol. 19 Nos 1-2, pp. 119-127, doi: [10.1080/13691066.2016.1260111](https://doi.org/10.1080/13691066.2016.1260111).
- Harrison, R. and Mason, C. (2019), "Venture capital 20 years on: reflections on the evolution of a field", *Venture Capital*, Vol. 21 No. 1, pp. 1-34, doi: [10.1080/13691066.2019.1562627](https://doi.org/10.1080/13691066.2019.1562627).
- Harrison, R., Botelho, T. and Mason, C. (2016), "Patient capital in entrepreneurial finance: a reassessment of the role of business angel investors", *Socio-Economic Review*, Vol. 14 No. 4, pp. 669-689, doi: [10.1093/ser/mww024](https://doi.org/10.1093/ser/mww024).
- Hassan, A., Saleem, I., Anwar, I. and Hussain, S.A. (2020), "Entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education", *Education + Training*, Vol. 62 Nos 7/8, pp. 843-861, doi: [10.1108/et-02-2020-0033](https://doi.org/10.1108/et-02-2020-0033).

- Hausman, A. and Siekpe, J. (2009), "The effect of web interface features on consumer online purchase intentions", *Journal of Business Research*, Vol. 62 No. 1, pp. 5-13, doi: [10.1016/j.jbusres.2008.01.018](https://doi.org/10.1016/j.jbusres.2008.01.018).
- Hill, B. and Power, D. (2002), *Attracting Capital from Angels: How Their Money-And Their Experience-Can Help You Build a Successful Company*, John Wiley & Sons, New York.
- Hmieleski, K. and Corbett, A. (2008), "The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction", *Journal of Business Venturing*, Vol. 23 No. 4, pp. 482-496, doi: [10.1016/j.jbusvent.2007.04.002](https://doi.org/10.1016/j.jbusvent.2007.04.002).
- Hu, L. and Bentler, P. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol. 6, pp. 1-55, doi: [10.1080/10705519909540118](https://doi.org/10.1080/10705519909540118).
- Huang, L., Wu, A., Lee, M., Bao, J., Hudson, M. and Bolle, E. (2017), "The American angel: the first in-depth report on the demographics and investing activity of individual American angel investors", available at: www.theamericanangel.org
- Irving, J. and Williams, D. (1999), "Personal growth and personal development: concepts clarified", *British Journal of Guidance and Counselling*, Vol. 27 No. 4, pp. 517-526, doi: [10.1080/03069889908256287](https://doi.org/10.1080/03069889908256287).
- Johns, H. (2012), *Personal Development in Counsellor Training*, Sage, Thousand Oaks.
- Jöreskog, K.G. and Sörbom, D. (1993), *Lisrel 8: Structural Equation Modeling with the SIMPLIS Command Language*, Scientific Software International, Lincolnwood.
- Judge, T. and Klinger, R. (2008), "Job satisfaction: subjective well-being at work", in Eid, M. and Larsen, R.J. (Eds), *The Science of Subjective Well-Being*, The Guilford Press, New York, pp. 393-413.
- Kerr, W., Lerner, J. and Schoar, A. (2014), "The consequences of entrepreneurial finance: evidence from angel financings", *Review of Financial Studies*, Vol. 27 No. 1, pp. 20-55, doi: [10.1093/rfs/hhr098](https://doi.org/10.1093/rfs/hhr098).
- Kolb, D.A. (2015), *Experiential Learning: Experience as the Source of Learning and Development*, Pearson Education, NJ.
- Lahti, T. and Keinonen, H. (2016), "Business angel networks: a review and assessment of their value to entrepreneurship", in Landström, H. and Mason, C. (Eds), *Handbook of Research on Business Angels*, Edward Elgar, Cheltenham, pp. 354-378.
- Lent, R.W. and Brown, S.D. (2013), "Understanding and facilitating career development in the 21st century", in *Career Development and Counseling - Putting Theory and Research to Work*, John Wiley & Sons, pp. 1-26.
- Lent, R.W., Brown, S.D. and Hackett, G. (1994), "Toward a unifying social cognitive theory of career and academic interest, choice, and performance", *Journal of Vocational Behavior*, Vol. 45 No. 1, pp. 79-122, doi: [10.1006/jvbe.1994.1027](https://doi.org/10.1006/jvbe.1994.1027).
- Lent, R., Brown, S. and Hackett, G. (2002), "Social cognitive career theory", in Brown, D. (Ed.), *Career Choice and Development*, John Wiley & Sons, NJ, pp. 255-311.
- Lindsay, N.J. (2004), "Do business angels have an entrepreneurial orientation?", *Venture Capital*, Vol. 6 Nos 2/3, pp. 197-210, doi: [10.1080/13691060420001675983](https://doi.org/10.1080/13691060420001675983).
- Lukes, M. and Stephan, U. (2017), "Measuring employee innovation: a review of existing scales and the development of the innovative behavior and innovation support inventories across cultures", *International Journal of Entrepreneurial Behavior and Research*, Vol. 23 No. 1, pp. 136-158, doi: [10.1108/ijeb-11-2015-0262](https://doi.org/10.1108/ijeb-11-2015-0262).
- Lumme, A., Mason, C. and Suomi, M. (1998), *Informal Venture Capital: Investors, Investments and Policy Issues in Finland*, Springer-Verlag, Boston, MA.
- Lysova, E.I., Dik, B.J., Duffy, R.D., Khapova, S. and Arthur, M. (2019), "Calling and careers: new insights and future directions", *Journal of Vocational Behavior*, Vol. 114, pp. 1-6, doi: [10.1016/j.jvb.2019.03.004](https://doi.org/10.1016/j.jvb.2019.03.004).

- Mahapatra, T. (2014), "The exit phase of individual angels, angel syndicates and corporate angels", *Journal of Management Research*, Vol. 14 No. 2, pp. 87-100.
- Marsh, H. and Hocevar, D. (1985), "Application of confirmatory factor analysis to the study of self-concept: first and higher order factor models and their invariance across groups", *Psychological Bulletin*, Vol. 97 No. 3, pp. 562-582, doi: [10.1037//0033-2909.97.3.562](https://doi.org/10.1037//0033-2909.97.3.562).
- Martin, A. and Bartscher-Finzer, S. (2014), "The self-concept of book publishers and its significance for job satisfaction and satisfaction with economic success", *Management Revue*, Vol. 25 No. 4, pp. 285-313, doi: [10.5771/0935-9915-2014-4-285](https://doi.org/10.5771/0935-9915-2014-4-285).
- Martin, B.C., McNally, J.J. and Kay, M.J. (2013), "Examining the formation of human capital in entrepreneurship: a meta-analysis of entrepreneurship education outcomes", *Journal of Business Venturing*, Vol. 28 No. 2, pp. 211-224, doi: [10.1016/j.jbusvent.2012.03.002](https://doi.org/10.1016/j.jbusvent.2012.03.002).
- Mason, C. (2006), "Informal sources of venture capital", in Parker, S. (Ed.), *The Life Cycle of Entrepreneurial Ventures*, Springer, New York, pp. 259-300.
- Mason, C. (2020), *The Coronavirus Economic Crisis: its Impact on Venture Capital and High Growth Enterprises*, European Commission Research Centre, Luxembourg.
- Mason, C. and Botelho, T. (2014), "The 2014 survey of business angel investing in the UK: a changing market place", available at: https://www.gla.ac.uk/media/Media_362647_smxx.pdf
- Mason, C. and Harrison, R. (2002), "Barriers to investment in the informal venture capital sector", *Entrepreneurship and Regional Development*, Vol. 14 No. 3, pp. 37-41, doi: [10.1080/08985620210142011](https://doi.org/10.1080/08985620210142011).
- Mason, C., Botelho, T. and Harrison, R. (2016), "The transformation of the business angel market: empirical evidence and research implications", *Venture Capital*, Vol. 18 No. 2, pp. 91-112, doi: [10.1080/13691066.2016.1229470](https://doi.org/10.1080/13691066.2016.1229470).
- Mason, C., Botelho, T. and Duggett, J. (2022), "Promoting cross-border investing by business angels in the European Union", *Regional Studies*, Vol. 56 No. 8, pp. 1391-1403, doi: [10.1080/00343404.2021.1960961](https://doi.org/10.1080/00343404.2021.1960961).
- Mason, C., Botelho, T. and Harrison, R. (2019), "The changing nature of angel investing: some research implications", *Venture Capital*, Vol. 21 Nos 2/3, pp. 177-194, doi: [10.1080/13691066.2019.1612921](https://doi.org/10.1080/13691066.2019.1612921).
- Maxwell, A., Jeffrey, S. and Lévesque, M. (2011), "Business angel early stage decision making", *Journal of Business Venturing*, Vol. 26 No. 2, pp. 212-225, doi: [10.1016/j.jbusvent.2009.09.002](https://doi.org/10.1016/j.jbusvent.2009.09.002).
- McKaskill, T. (2009a), *An Introduction to Angel Investing - A Guide to Investing in Early Stage Entrepreneurial Ventures*, Breakthrough Publications, Melbourne.
- McKaskill, T. (2009b), *Invest to Exit - A Pragmatic Strategy for Angel and Venture Capital Investors*, Breakthrough Publications, Melbourne.
- Meijers, F. and Lengelle, R. (2015), "Career learning: qualitative career assessment as a learning process in the construction of a narrative identity", in McMahon, M. and Watson, M. (Eds), *Career Assessment*, Sense, Rotterdam, pp. 41-48.
- Miller, A., Scahill, S. and Warren, L. (2019), "Investor motivations of a New Zealand biopharma start-up: angels and crowdfunders", *International Journal of Entrepreneurship and Innovation*, Vol. 20 No. 4, pp. 252-262, doi: [10.1177/1465750319877391](https://doi.org/10.1177/1465750319877391).
- Morales-Alonso, G., Vila, G.A., Lemus-Aguilar, I. and Hidalgo, A. (2020), "Data retrieval from online social media networks for defining business angels' profile", *Journal of Enterprising Communities*, Vol. 14 No. 1, pp. 57-75, doi: [10.1108/jec-10-2019-0095](https://doi.org/10.1108/jec-10-2019-0095).
- Norberg, O. (2007), *The Structure of Angel Groups*, Royal Institute of Technology, Stockholm.
- OECD (2011), *Financing High-Growth Firms the Role of Angel Investors*, OECD Publishing, Paris.
- Okolie, U.C., Elom, C.O., Onajite, G.O. and Igwe, P.A. (2021), "Exploring the link between student placement learning in business organizations and self-employment preparatory behaviours", *Industry and Higher Education*, Vol. 36 No. 6, pp. 1-12, doi: [10.1177/09504222211057013](https://doi.org/10.1177/09504222211057013).

- Paul, S. and Whittam, G. (2010), "Business angel syndicates: an exploratory study of gatekeepers", *Venture Capital*, Vol. 12 No. 3, pp. 241-256, doi: [10.1080/13691061003711438](https://doi.org/10.1080/13691061003711438).
- Pham, H.H. and Le, T.L. (2023), "Entrepreneurial education and entrepreneurial intention among higher education students in Vietnam: do entrepreneurial self-efficacy and family support matter?", *Higher Education, Skills and Work-Based Learning*, Vol. 13 No. 2, pp. 403-422, doi: [10.1108/heswbl-10-2022-0213](https://doi.org/10.1108/heswbl-10-2022-0213).
- Politis, D. (2016), "Business angels as smart investors: a systematic review of the evidence", in Landström, H. and Mason, C. (Eds), *Handbook of Research on Business Angels*, Edward Elgar, Cheltenham, pp. 147-175.
- Politis, D. and Landstrom, H. (2002), "Informal investors as entrepreneurs - the development of an entrepreneurial career", *Venture Capital*, Vol. 4 No. 2, pp. 78-101, doi: [10.1080/13691060210816](https://doi.org/10.1080/13691060210816).
- Puustinen, P., Maas, P. and Karjaluo, H. (2013), "Development and validation of the perceived investment value (PIV) scale", *Journal of Economic Psychology*, Vol. 36, pp. 41-54, doi: [10.1016/j.joep.2013.02.009](https://doi.org/10.1016/j.joep.2013.02.009).
- Riding, A. (2008), "Business angels and love money investors: segments of the informal market for risk capital", *Venture Capital*, Vol. 10 No. 4, pp. 355-369, doi: [10.1080/13691060802351222](https://doi.org/10.1080/13691060802351222).
- Rose, D. (2014), *Angel Investing*, Hoboken, John Wiley & Sons, NJ.
- San José, A., Roure, J. and Aernoudt, R. (2005), "Business angel academies: unleashing the potential for business angel investment", *Venture Capital*, Vol. 7 No. 2, pp. 149-165, doi: [10.1080/13691060500063392](https://doi.org/10.1080/13691060500063392).
- Santos, S.C. and Liguori, E.W. (2019), "Entrepreneurial self-efficacy and intentions subjective norms as moderator", *International Journal of Entrepreneurial Behavior and Research*, Vol. 26 No. 3, pp. 400-415, doi: [10.1108/ijeb-07-2019-0436](https://doi.org/10.1108/ijeb-07-2019-0436).
- Savickas, M. (2012), "Life design: a paradigm for career intervention in the 21st century", *Journal of Counseling and Development*, Vol. 90 No. 1, pp. 13-19, doi: [10.1111/j.1556-6676.2012.00002.x](https://doi.org/10.1111/j.1556-6676.2012.00002.x).
- Savickas, M., Nota, L., Rossier, J., Dauwalder, J., Duarte, M., Guichard, J., Soresi, S., Van Esbroeck, R. and van Vianen, A. (2009), "Life designing: a paradigm for career construction in the 21st century", *Journal of Vocational Behavior*, Vol. 75 No. 3, pp. 239-250, doi: [10.1016/j.jvb.2009.04.004](https://doi.org/10.1016/j.jvb.2009.04.004).
- Scaringella, J.-L. (2010), "Executive education: a process of continuous development", in Bournois, F., Duval-Hamel, J., Roussillon, S. and Scaringella, J.-L. (Eds), *Handbook of Top Management Teams*, Palgrave, London, pp. 279-286.
- Schein, E.H., Maanen, J. and Schein, P.A. (2023), *Career Anchors Reimagined - Finding Direction and Opportunity in the Changing World of Work*, John Wiley & Sons.
- Segars, A. and Grover, V. (1998), "Strategic information systems planning success: an investigation of the construct and its measurement", *MIS Quarterly: Management Information Systems*, Vol. 22 No. 2, pp. 139-162, doi: [10.2307/249393](https://doi.org/10.2307/249393).
- Shane, S. (2009), *Fool's Gold: the Truth behind Angel Investing in America*, Oxford University Press, New York.
- Shim, G., Lee, S. and Kim, Y. (2008), "How investor behavioral factors influence investment satisfaction, trust in investment company, and reinvestment intention", *Journal of Business Research*, Vol. 61 No. 1, pp. 47-55, doi: [10.1016/j.jbusres.2006.05.008](https://doi.org/10.1016/j.jbusres.2006.05.008).
- Smith, D., Harrison, R. and Mason, C. (2010), "Experience, heuristics and learning: the angel investment process", *Frontiers of Entrepreneurship Research*, Vol. 30 No. 2, p. 14.
- Söderblom, A., Samuelsson, M. and Mårtensson, P. (2016), "Opening the black box: triggers for shifts in business angels' risk mitigation strategies within investments", *Venture Capital*, Vol. 18 No. 3, pp. 211-236, doi: [10.1080/13691066.2016.1175636](https://doi.org/10.1080/13691066.2016.1175636).
- Sohl, J. (2007), "The organization of the informal venture capital market", in Landström, H. (Ed.), *Handbook of Research on Venture Capital*, Edward Elgar, Cheltenham, pp. 347-370.
- Sørheim, R. and Botelho, T. (2016), "Categorizations of business angels: an overview", in Landström, H. and Mason, C. (Eds), *Handbook of Research on Business Angels*, Edward Elgar, Cheltenham, pp. 76-91.

- Stroh, L. and Brett, J. (1994), "A decade of change: managers' attachment to their organizations and their jobs", *Human Resource Management*, Vol. 33 No. 4, pp. 531-548, doi: [10.1002/hrm.3930330404](https://doi.org/10.1002/hrm.3930330404).
- Supeli, A. and Creed, P. (2016), "The longitudinal relationship between protean career orientation and job satisfaction, organizational commitment, and intention-to-quit", *Journal of Career Development*, Vol. 43 No. 1, pp. 66-80, doi: [10.1177/0894845315581686](https://doi.org/10.1177/0894845315581686).
- Šverko, B. (2001), "Life roles and values in international perspective: super's contribution through the work importance study", *International Journal for Educational and Vocational Guidance*, Vol. 1 No. 1, pp. 121-130, doi: [10.1023/a:1016929016249](https://doi.org/10.1023/a:1016929016249).
- Tenca, F., Croce, A. and Ughetto, E. (2018), "Business angels research in entrepreneurial finance: a literature review and a research agenda", *Journal of Economic Surveys*, Vol. 32 No. 5, pp. 1384-1413, doi: [10.1111/joes.12224](https://doi.org/10.1111/joes.12224).
- Thoits, P. (2012), "Role-identity salience, purpose and meaning in life, and well-being among volunteers", *Social Psychology Quarterly*, Vol. 75 No. 4, pp. 360-384, doi: [10.1177/0190272512459662](https://doi.org/10.1177/0190272512459662).
- Thompson, J. and Bunderson, J. (2019), "Research on work as a calling. . .and how to make it matter", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 6 No. 1, pp. 421-443, doi: [10.1146/annurev-orgpsych-012218-015140](https://doi.org/10.1146/annurev-orgpsych-012218-015140).
- Townsend, D. and Busenitz, L. (2015), "Turning water into wine? Exploring the role of dynamic capabilities in early-stage capitalization processes", *Journal of Business Venturing*, Vol. 30 No. 2, pp. 292-306, doi: [10.1016/j.jbusvent.2014.07.008](https://doi.org/10.1016/j.jbusvent.2014.07.008).
- Wach, D., Stephan, U., Gorgievski, M.J. and Wegge, J. (2020), "Entrepreneurs' achieved success: developing a multi-faceted measure", *International Entrepreneurship and Management Journal*, Vol. 16 No. 3, pp. 1123-1151, doi: [10.1007/s11365-018-0532-5](https://doi.org/10.1007/s11365-018-0532-5).
- Wetzel, W. (1983), "Angels and informal risk capital", *Sloan Management Review*, Vol. 24 No. 4, pp. 23-34.
- White, B. and Dumay, J. (2017), "Business angels: a research review and new agenda", *Venture Capital*, Vol. 19 No. 3, pp. 183-216, doi: [10.1080/13691066.2017.1290889](https://doi.org/10.1080/13691066.2017.1290889).
- Wirtz, P., Bonnet, C. and Cohen, L. (2017), "Angel cognition, human capital, and active involvement in business-angel-networks' governance and management", *2017 Emerging Trends in Entrepreneurial Finance Conference*, Vol. 40.

Further reading

- Baruch, Y. (2006), "Career development in organizations and beyond: balancing traditional and contemporary viewpoints", *Human Resource Management Review*, Vol. 16 No. 2, pp. 125-138, doi: [10.1016/j.hrmr.2006.03.002](https://doi.org/10.1016/j.hrmr.2006.03.002).
- Falcão, R., Moreira, A.C. and Carneiro, M.J. (2023), "What's in it for me? The perceived investment value of business angels", *International Journal of Entrepreneurship and Innovation*. doi: [10.1177/14657503231213310](https://doi.org/10.1177/14657503231213310).

Corresponding author

Antonio Carrizo Moreira can be contacted at: amoreira@ua.pt

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com