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Business angels in the Czech Republic: characteristics and a classification with policy implications

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ABSTRACT

There is a lack of knowledge regarding the profiles of Czech business angels. In this article, we intend to contribute the empirical evidence in regard to identifying a ‘typical’ business angel profile in the Czech Republic. Using a unique dataset containing survey gained data on informal venture capitalists, we show that angel investors share many of the characteristics reported for well-developed markets. They are usually males, middle aged, with high school backgrounds and further educational achievements in MBA courses. They are trained or experienced in entrepreneurship or have the status as a hired or owner manager in a firm. Furthermore, the ICT is the most targeted industry amongst business angels. Similar to their foreign counterparts, they are financially well-off, although we have to differentiate in regard to age categories. Co-operation with other BAs is a very common channel how the deal flow is facilitated. BAs are ‘hands-on’ investors in the sense they provide investee companies with advice, insights, knowledge. The implications from this study indicate that measures focused on data gathering have to be implemented in order to systematically analyse the market and apply problem-driven policies.

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Introduction

Informal venture capital (VC) represents direct investments in unquoted enterprises done by non-institutionalised/informal VCs, i.e., business angels (BAs). This source of capital to start-up entrepreneurs has become an important pool of financing during recent decades, when many conventional industries have diminished their activities in well-developed countries and at the same time new business projects with low initial capital requirements in high-tech innovative industries have emerged (Trinh,

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2019). Departing from prior studies, it is very well documented that many of these highly entrepreneurial projects face the problem of sufficient financing, which can significantly affect their growth potential and is often considered as an important business risk factor (Belas et al., 2020; Dankiewicz et al., 2020; Dvorský et al., 2019; Kramoliš & Dobeš, 2020; Kelemen et al., 2019; Ključnikov et al., 2019; Polishchuk et al., 2019; Zygmunt, 2020). Mason and Harrison (2008) conclude that most of these innovative start-ups have to raise capital from personal funds (family, friends and fools, 3Fs) or institutionalised or non-institutionalised (informal) venture capitalists and banks (see also further works, e.g., by Grilli, 2019 or White & Dumay, 2017). The BAs are positioned between 3Fs on the one hand and institutionalised venture capitalists and banking sector on the other hand.

In terms of academic research, the first generation studies, going back to the 1980s, addressed issues such as the size of the informal VC market, and attempted to uncover the demographic profile for a 'typical' BA and their characteristics and attitudes in the USA (Aram, 1987; Gaston & Bell, 1988; Wetzels, 1983). According to them, the BA refers to 'middle-aged men, with high income and a past experience as entrepreneurs, who invested rather large sums per venture' (cited in Argerich & Cruz-Cázares, 2017). Since early 1990s, the follow-up research has drawn attention on other well-developed countries and enlarged the range of definitional issues in order to find a 'standard' definition of an informal investor (Argerich & Cruz-Cázares, 2017; Brettel, 2002; Capizzi, 2015; Farrell et al., 2008; Harrison & Mason, 1992; Hindle & Lee, 2002; Hindle & Wenban, 1999; Johnson & Sohl, 2012; Landström, 1993; Lumme et al., 1996; Månsson & Landström, 2006; Mason, 2009; Stedler & Peters, 2003; Tashiro, 1999). New data sets, however, very often contradicted the previous BA definitions, which makes it difficult to compare and contrast survey results between countries (Landström & Mason, 2016; Shane, 2010; World Bank Group, 2018).

For a long time, research on BAs has been conducted predominantly in the USA, UK, and Western Europe. White and Dumay (2017) report that 73% of 84 analysed papers were undertaken in North America, the UK, and/or Europe and that only a minor share of the studies deliver empirical evidence for BAs' activity outside these regions. Very little is known about the angel investing activities within the Central and Eastern European (CEE) countries. The OECD study 'Financing High-Growth Firms' (OECD, 2011) focused on angel investment, their definitions, worldwide trends and key success factors includes interviews with individuals undertaken in 32 countries but neither of them came from a CEE country. In the 'Angels Without Borders: Trends and Policies Shaping Angel Investment Worldwide' study (May & Liu, 2015), the BA market is examined from the perspective of 26 countries. None of them were from the CEE region. Thus, there is only insufficient information on the size and structure of the market, its market players, and the external and in-house factors influencing the BA activity.

Similarly to other countries in the region, the Czech Republic has experienced substantial economic transformation during the past three decades. The country has undergone fundamental economic and social changes in the early 1990s, integrated in the global value chains, joined the EU in 2004 and was affected by the Great Recession during the late 2000s and early 2010s (see Łapińska et al., 2019; Nikulin & Szymczak, 2020). The financial system has been transformed entirely and the fact that

the main source of raising financial resources include foreign direct capital inflow and loans provided by foreign owned banks is considered to be a systemically significant risk in terms of the GDP growth (Bencsik et al., 2018; Legenzova et al., 2019; Mura & Kajzar, 2019; Nölke & Vliegthart, 2009; Skare & Porada-Rochoń, 2019a, 2019b). The issue how to increase the role of financial alternatives such as initial public offerings and formal and informal venture capital has been addressed in many studies (Bigos, 2018; Dvorský et al., 2019; Karsai, 2018; Meluzín et al., 2018a, 2018b, 2018c; Nölke & Vliegthart, 2009; Peterle & Berk, 2016; Skalicka et al., 2019; World Bank Group, 2018; Zinecker & Bolf, 2015). In the context of the informal VC market, the most valuable contribution up to now has been represented by the World Bank Study (2018) entitled 'Stimulating Business Angels in the Czech Republic' (2018), capturing current state of BA activities in the country. Based on a comprehensive analysis of both supply and demand side of the market this study results in proposing a number of policy measures for encouraging BA investments. The authors surveyed 35 main public and private stakeholders 'from the entrepreneurial and investment ecosystem' including business angels/business angels networks, venture capital/crowdfunding platforms, M&A/private offices, entrepreneurs, incubators/accelerators, and government agencies. In terms of the state of the market development, the authors conclude that this might be described as immature and underdeveloped. Obtaining primary data on BA investing is described as problematic in the Czech Republic because of the 'fragmented and individualistic nature' of the market and the lack of 'any conventional business angel network' (BAN). The study, however, provides only sketchy information about the demographic profiles of Czech BAs, their investment behaviour and attitudes.

Thus, what to our knowledge appears to be missing from prior research is the issue how to characterise a typical BA in the Czech informal venture capital market. Hence, the novelty of this study consists in the survey-based approach, as only limited primary data focused on the supply side is available. The lack of knowledge makes it challenging for academia and private and public institutions to understand this phenomenon and propose and apply effective measures. In comparison to the World Bank Study (2018) based on qualitative interviews with a wide spectrum of stakeholders, we exclusively surveyed BAs. Thirty-one semi-structured interviews were conducted with informal VCs covering the entire territory of the Czech Republic in 2018 and 2019 in order to assess a 'typical' BA profile.

The remainder of the article is structured as follows. In the first part, a theoretical framework on definitional issues in terms of BA profiles and investment characteristics is developed. Next, the article presents the methodological framework including the survey design and selection of research methodology. Third, we deliver empirical evidence on BAs' characteristics based on ten issues outlined in the literature review and methodological part. In conclusions, the public policy implications for measures how to foster BAs' activity in the country are discussed.

2. Literature review

We provide a structured review of more than twenty academic studies in order to capture the essence of the terms institutionalised and non-institutionalised venture capital. First, we focused on the issue how to distinguish angel investors from their

institutionalised peers (venture capitalists). Next, we review the academic literature on angel investment in order to shed light on definitional differences, BAs' profiles, and investment criteria.

The existing body of literature varies in regard to the definitional aspects of formal and informal venture capital, however the authors predominantly propose that while formal VCs invest funds raised from institutional investors and provide managements assistance to highly-innovative unlisted enterprises, BAs invest typically their personal funds and business experience into start-ups and growing private ventures being perceived by VCs as too risky or small (see e.g., Scheela et al., 2015; Van Osnabrugge & Robinson, 2000). Similar to formal VC, angel investments refer to equity stake made into enterprises for financial gain, however in addition to funding, BAs might be also motivated by other factors such as providing business management experience, skills, and contacts, or re-structuring their personal asset portfolios and reducing their personal risk (Argerich & Cruz-Cázares, 2017; Farrell et al., 2008; Van Osnabrugge & Robinson, 2000). Hence, Angel funding is classically understood as a tool 'bridging the gap between the 3Fs and institutionalised venture capital funds' (World Bank Group, 2018).

In his pioneering research paper, Wetzel (1983) explored the informal venture capital market in New England (USA). He concluded that BAs are 'the most likely sources of funds for technology based investors looking for development funds and for small, technology-based firms looking for start-up and growth capital'. Based on a convenience sample of BAs, the study delivers data on investors' characteristics, the nature of their investments and suggests measures to increase efficiency of the informal venture capital market. Haar et al. (1988) have made further efforts in order to explore informal venture capital market on the East Coast of the USA. Due to the general difficulty to obtain data, the authors built their sample from MBA alumni lists, member lists of venture capital associations and subscribers to academic and professional magazines to increase response rates. The survey findings suggest that BA investors are predominantly middle-aged men (98.1%) with high annual income level experienced in investing in stocks, bonds and even formal venture capital funds. The main motivation for conducting VC investments consists in the high rate of return expectations.

In the European context, the very first studies emerged at the beginning of the 1990s. All research was aimed at replicating the questions defined in US early works: What are the characteristics (profiles) and attitudes of informal investors? And: Can these be compared to those in the USA? (Brettel, 2002 and Stedler & Peters, 2003 in Germany; Harrison & Mason, 1992 in the UK; Landström, 1993, in Sweden; Lumme et al., 1996 in Finland; Maula et al., 2005 in Finland; O'Gorman & Terjesen, 2006 in Ireland; Van Osnabrugge, 1998 in the UK). New or refined definitions appeared.

Harrison and Mason (1992) report that the business angel refers to a predominantly male entrepreneur, who is financially well-off without being super-rich who, is making investments based on recommendations from friends and business associates. The UK BAs are significantly older than their US counterparts, which is caused by differences in tax rates on capital and wealth accumulation. Stedler and Peters (2003) aimed at closing the knowledge gap on German BAs while interviewing more than

230 respondents. They describe a 'typical' German BA as male, living in western or southern parts of the country, aged between 40 and 55 years, and being employed as a senior manager either in his own or in another company. Most of the informal investors were experienced in service and IT industries. Maula et al. (2005) conducted a unique survey among Finnish informal venture capitalists under the Global Entrepreneurship Monitor research programme (Bygrave et al., 2003) to reveal determinants which affect the propensity of individuals to conduct microangel investments. Surprisingly, the findings in some aspects contradict the results of prior studies, since demographic factors such as income, age or education were not found to be decisive determinants. The study, however, delivers empirical evidence that experience as entrepreneur, individual's perceived startup skills and attitudes matter more. Global Entrepreneurship Monitor study also served as the source of survey gained data for O'Gorman and Terjesen (2006), studying BAs' profiles in Ireland, more specifically gender differences in entrepreneurship and informal investment. Referring to a comparative analysis, the authors conclude that both female and male informal venture capital investors do not differ in terms of age, educational and professional backgrounds, business opportunities, skills, fear of failure or current entrepreneurial activity. The only exception concerns work status, as female investors tend to work part-time or as a homemaker.

Built upon a comprehensive review of BAs' academic studies, Farrell et al. (2008) investigated the sampling issues and related attitudes how to define informal venture capital investors. They cited Wetzel's original work (1983), providing some examples of how the methodology of data collection can influence survey conclusions in terms of the definition of BAs. Thus, there is an unambiguous link between the definitional issue and the sampling method used. The authors found that much of the informal venture capital to date has been done applying convenience samples instead of random samples. This is caused by difficulties to obtain data because of the desire of BAs not to reveal their identity, the non-existence of public registers and the high cost of random sampling, as BAs represent only a small share of the total population. Following Argerich and Cruz-Cázares (2017), the convenience samples are based predominantly on four different approaches. The first method is built on lists of persons who are more likely to conduct private investments because of their educational and professional backgrounds and high income levels, e.g., MBA alumni, doctors, or subscribers to business journals (Lindsay, 2004). The second approach uses lists of enterprises that might have had a BA investor (Harrison & Mason, 1992; Landström, 1993). Next, the snowball method works with initial individuals (BAs) who help to enlarge the sample by sharing personal contacts and networks with the researcher (Brettel, 2002; Haar et al., 1988). The last approach how to make a link to informal investors is through established business angels networks and business introduction services (Harrison & Mason, 1992; Stedler & Peters, 2003; Van Osnabrugge, 1998).

Farrell et al. (2008) call for a 'standard' definition of the BA, because a common definition is a prerequisite for making reliable comparisons not only across various types of informal investors within a single market but also across countries. If there is a lack of a standard definition, it remains unclear what exact data should be collected and how the survey results can be assessed and compared to previous studies.

In terms of the definition, differences in six areas were identified (investment timing; whether debt financing should be involved; whether to include virgin and corporate investors; whether investments conducted by family and friends to investee should be outside or inside the definition of a BA). The authors propose to adopt 'a broad definition of the informal VC' and the use of sampling methods delivering 'a more representative range' of BAs. Therefore, the following definition of informal venture capital investing should be used: a BA/informal venture capitalist/individual private equity investor is 'an individual, non-professional, debt/equity investor (not lender) investing their own funds in unquoted firms in which they are not the entrepreneur' (Farrell et al., 2008). This definition including all forms of informal VC investing allows studying the phenomena of BAs in all its forms and while applying the same methodology.

Argerich and Cruz-Cázares (2017) made further efforts to deal with various definitions of BAs, sampling methods and contradictory findings. They deliver a proposal how to define informal venture capitalists based on definitional differences in ten areas. First, in terms of timing only persons holding an investment at the time of the study should be involved in the research. Second, both equity and debt investments should be considered. Third, potential investors cannot be held for BAs, i.e., an investment track record must be identified. Fourth, BAs conducting investments through a corporation might be involved in the research if the investor is identical with the decision maker. Fifth, family investors should be treated in a differentiated manner because of different investment drivers, processes and attitudes. Sixth, contrary to family members, friend investors might be considered as BA investors. Seventh, since there is no empirical support that different approaches according to investor's net worth and income are applied, there should be no limitations set in regard to these aspects. Eighth, there should be also no restraints specified for the investment size, as setting the limits below which an investor is not a BA is difficult. Ninth, it seems hardly possible to define a particular industry or phase where informal VC investments cannot occur. Hence, any project fulfilling the above conditions might be considered risk investment. Last, because of difficulties to distinguish between hands-on and hands-off approach in the investee company, both active and passive investors should be involved in studying investments on the informal VC market. In conclusion, Argerich and Cruz-Cázares (2017) propose to define BAs as 'any individual that currently holds an investment made (debt and/or equity) directly with his or her own money in an unquoted company, is neither the entrepreneur nor his or her relatives, and plays an active or passive role in the investee firm'.

Based on empirical evidence, the World Bank Study (2018) provides *inter alia* a supply-side analysis of the angel market in the Czech Republic. The main issue in this part of the research was to assess the basic characteristics of the emerging early stage investment community, which might be also interpreted as a contribution in terms of the definition of angel investors. The study concludes that the Czech market is dominated by a 'small pool of very high net worth individuals', who conduct their investments largely on an individual basis either as a direct investment or via a private personal fund structure or family office. The low number of investors together with low values of capital invested, a poor portfolio diversification, and a

concentration on a limited number of industries could represent a systematic risk in terms of available investment funds. Additionally, a substantial lack of syndication and the absence of any conventional business angel network structures seems to hinder the market development as this contradicts international best practice in well-developed markets. There is a comprehensive list of policy recommendations proposed in the study addressing the gaps identified in the analytical part. These are structured as, short-, medium-, and long term and tackle potential objectives, problems, and policy interventions that may be implemented.

On the basis of the aforementioned literature review, drawing attention to the lack of empirical evidence on the BAs' demographic profiles and investment characteristic, the following research questions have been raised with respect to the Czech informal venture capital market: *What are the demographic profiles, professional backgrounds and education of Czech BAs? Furthermore, what are their investment skills to conduct informal VC investments? Next, how do the surveyed BAs perceive their wealth and the level of involvement? What are the attitudes of informal VCs to co-operation and structuring the deals in terms of sources used? Finally, do the Czech BAs differ significantly from their peers in well-developed markets in terms of the share of VC investments on total assets, the level of involvement in investee companies and investments in equity and debt?*

3. Methodology

3.1. Sample

Our analysis is based on a convenience sample of informal VC investors in the Czech Republic, using survey gained data. Although there are considerable doubts about applying this sampling method because convenience samples might not represent the whole population of BAs (Argerich & Cruz-Cázares, 2016; Farrell et al., 2008; Harrison & Mason, 2007; Landström & Mason, 2016; World Bank Group, 2018), we justify this approach by underdevelopment and immaturity of the Czech informal venture capital market, making it prohibitively difficult and expensive to draw from a random sample of a general population. The size and structure the of BAs' population is unknown, since there is no public or private agency 'systematically collecting data' on the informal VC market in the Czech Republic (World Bank Group, 2018) and based on experts' estimations, the BANs in the country, in contrast with their peers in well-established informal VC markets, by far do not cover the entire volume of the informal VC investments. Moreover, the BAs population in the Czech Republic is assumed to be significantly smaller than comparable populations in countries with well-established VC markets, particularly in the USA, UK or Scandinavia, where previous studies identified of up to hundreds of investors (Månsson & Landström, 2006 in Sweden; Mason & Harrison, 2004 in the UK; Reitan & Sørheim, 2000 in Norway; Feeney et al., 1999 in Canada; Sullivan & Miller, 1996 in the USA). An all-embracing, broad definition of BAs as proposed by Farrell's et al. (2008) and Argerich and Cruz-Cázares (2016) was used in order to catch the nature of informal VC investments. For details see [Table 1](#).

Table 1. Definitional framework.

Definitional issues/areas	Definition	Justification
Timing	BAs are persons who are currently holding informal VC investments	Investor activity includes not only finding, assessing and closing a deal but also following up investments until exit
Use of debt and equity instruments	The amount invested might include both equity and debt from a BA to the investee	BAs often use hybrid instruments to keep down investment's potential to suffer a decline in value – the decision whether equity or debt will be used is only a deal structuring decision
Virgin/potential investors	Investors who have never invested but might consider a deal in the future are excluded from the survey	Only those informal VCs should be surveyed whose investment is in the time span between the deal closing and exit with their investments. Our sample includes only those respondents who have prior professional experience with informal VC investing
Corporate investors	BAs are those investors who take the final investment decision irrespective of whether they invest from personal funds or through a company	There might be tax reasons why to invest through a company. The investor is also often motivated to reduce their personal risk
Family angels	Family members are excluded from our survey	Family members might be driven by different motives while decision making
Friend angels	Friend angels are included into our survey	It seems to be difficult to isolate friendship connections. Moreover, investment behaviour is likely to differ in unrelated investments
BA's net worth and income	We set no limits with regard to net worth or net income	There is no knowledge whether investors' approaches are determined by his/her net worth or income
Investment size	No certain limits on volumes of capital invested are set	Any definition of a limit below which an investor cannot be considered a BA is unjustified and thus controversial
Investment type	All investors irrespective of stage of development the industry they invest in are considered (assumed that the other conditions above are fulfilled)	Concentration just on a specific industry or a particular stage in the life cycle of an investment can cause strange choices. Why to include an investment in a start-up and exclude a follow-on investment?
Investor's involvement	We survey both 'hands-on' and 'hands-off' investors	It might be hard to distinguish between 'hands-off' and 'hands-on' investors because it remains unclear based on which criteria to separate these two groups

Source: Own work based on Farrell's et al. (2008) and Argerich and Cruz-Cázares (2017).

We used the snowball sampling method, or nominated sampling, because we believe that our initial set of respondents can be enlarged only by linking the research team to other informal investors, who are related by friendship or business networks (Argerich & Cruz-Cázares, 2017; Goodman, 1961; Harrison & Mason, 1992). This sampling method seems to provide us with the unique access to investors whose population is in the normal course of events practically impossible to reach. In the first stage, the researchers approached three investors with whom pre-research contacts existed. These respondents were asked to indicate other BAs they considered to belong to the group under study. In the second stage, a local business angel network was involved as a mentor and expert and provided us with valuable contacts to the community of angel investors. A database of 47 potential respondents was compiled from the information provided by the initial respondents and the business angel network. In our survey, a total of the 31 useable responses were obtained within the snowball search process covering all parts of the Czech Republic. Hence, the share of

investors who were not cooperative and refused to participate was 34 percent. The main determinant of refusal to take part in the survey was to 'remain anonymous'. Some BAs also indicated that 'they have very strong feelings regarding disclosing strategic information to competitors'.

3.2. Data collection, variables, and data analysis

The data were collected by interviewing respondents on a face-to-face basis in 2018 and 2019. Each interview was undertaken by a single interviewer and lasted from 45 to 90 min. With respect to the nature of the research as being explorative, the interviews were conducted in a semi-structured way and without any formal questionnaire as described by Opdenakker (2006) and Festel and De Cleyn (2013). Compared to other methods of data collection, the interviews represent a guarantee that interviewees can keep their privacy, which might be essential when considering the participation in a survey. Next, this approach provides the respondent with the possibility to comment on the questions examined. Blinder (1991) point out that respondents' answers might be heterogeneous, abrupt, disagreeing with academic theories, and bearing an accompanying understanding about how the interviewees think. Finally, in particular the semi-structured interview allows the researcher to verify that investors are concentrated and understand the background of the topics discussed.

After a short introduction by the interviewer, some general questions were asked: 'What is your experience with informal VC market?'; 'Could you describe your professional and educational background?'; or 'What skills you need as a BA investor?' All the answers were recorded per hand while using a structured response sheet supporting the researcher to manage his/her time efficiently. The sheets were anonymised, i.e., no records contain any personal data.

An inductive approach was used to process the qualitative data (see e.g., Drnovšek et al., 2018). Once the data was collected, it was cleaned up and checked for any errors. In the first stage of data processing, the qualitative content analysis was used, i.e., we were focused on words and phrases in order to reveal and a better understand the knowledge, perceptions, opinions, intentions and targets of the individual investors. Next, we summarised and categorised ('coded') the data in order to report (1) basic demographic data (age, education and professional status); (2) skills to conduct informal VC investments (experience with setting up a business, investments experience, amount of projects covered, investment plans/intentions); (3) BAs' perceptions of wealth, investment volume and the level of involvement; (4) co-operation with partners and use of debt and equity; and (5) the type of investment. Once coding was completed, the categorised data was transferred to an electronic data matrix under the registration number of the respondent without any connection to his or her personal data. Descriptive statistics was applied to analyse records for the frequency of terms and conclusions about the research question were drawn. The findings were reported to, and discussed with, the respondents in order to verify their accuracy (e.g., Festel & De Cleyn, 2013, recommended this procedure). Finally, the survey findings on Czech informal VCs are compared with their counterparts operating in well-developed markets.

Table 2. Age structure of business angels.

Age category	Up to 30 years	Between 30 and 40 years	Between 40 and 50 years	Between 50 and 60 years	Over 60 years
<i>n</i>	2	3	7	12	7
% of <i>n</i>	6.45	9.68	22.58	38.71	22.58

Source: Own research.

4. Research findings

4.1. Demographic profile of BAs

The typical Czech BA is male (97%), his/her average age is 51 years, with the age group of 50–60 years being the most represented (39%). Yet the proportion of the respondents in the age groups of 40–50 years and over 60 is also strong (Table 2).

The professional profile of the surveyed respondents indicates that the BAs often have professional background at the level of top management, either as owners or agents in terms of the agency theory (Jensen & Meckling, 1976). The highest share of respondents is represented by the category of ‘executives’ aged over 40 years. Only a small portion of BAs fall into the category of ‘investors’ or ‘ex-entrepreneurs’, while this segment mainly applies to the highest age category. The share of BAs under 40 years is negligible (Table 3). Most frequently, the respondents in this age category refer to themselves as ‘managers’, which expresses the fact that they are primarily concerned with operational matters. However, when comparing the age of BAs with the field in which the respondents have the most experience, the following results are obtained: in the case of the youngest age groups, there is a higher share of experience in the sectors of communications, computer and electronics (ICT) and R&D, while in older age categories, the areas of production and services become more prominent, also with a higher representation of the telecommunications sector (Table 4).

The BAs usually gained work experience in 2–3 positions, with the highest share of the respondents having experience in top management. There is also frequent experience in sales, marketing and finance, or a combination of these three areas. An overview of BAs work experience combinations is shown in Table 5 (note: the sum of the shares in the table does not give 100% due to the multiplicity of experience by the individual respondents). There is also frequent experience in sales, marketing and finance, or a combination of these three sectors. Table 5 shows a summary of the combination of work experience of the BAs (NB: the sum of the shares in the table does not equal 100% due to the multiplicity of experience by the individual respondents).

The educational profile of respondents is shown in Table 6. More than two-thirds of the respondents report having completed university education, while almost a third have also completed courses in further managerial training (MBA, LL.M., etc.), and 6% achieved lower scientific degrees (PhD or its equivalent).

4.2. Skills to conduct informal VC investments

Table 7 shows that the most common length of investment experience ranges from 3 to 5 years. In terms of frequency, this is followed, with a certain distance, by the

Table 3. Professional backgrounds of investors professional status (frequency in %).

Age category/experience (position)	Executive		Manager		Ex-entrepreneur		Investor		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<30	1	3.23	1	3.23	0	0.00	0	0.00	2	6.46
30 – 40	1	3.23	1	3.23	0	0.00	1	3.23	3	9.68
40 – 50	5	16.13	0	0.00	1	3.23	1	3.23	7	22.58
50 – 60	7	22.58	4	12.90	1	3.23	0	0.00	12	38.71
>60	4	12.90	0	0.00	1	3.23	2	6.46	4	22.58
In total	18	58.06	6	19.35	3	9.68	4	12.90	31	100.00

Source: Own research.

Table 4. Professional backgrounds of investors experience in a specific industry.

Age category / experience (industry)	Computer and electronics		Communications		R&D		Production		Services		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<30	1	3.23	0	0.00	1	3.23	0	0.00	0	0.00	2	6.46
30 – 40	2	6.46	0	0.00	0	0.00	1	3.23	0	0.00	3	9.68
40 – 50	3	9.68	2	6.46	1	3.23	0	0	1	3.23	7	22.58
50 – 60	3	9.68	1	3.23	4	12.90	3	9.68	1	3.23	12	38.71
>60	3	9.68	2	6.46	1	3.23	1	3.23	0	0.00	7	22.58
In total	12	38.71	5	16.13	7	22.58	5	16.13	2	6.46	31	100.00

Source: Own research.

Table 5. Professional backgrounds of investors combinations.

	Share of investors with professional experience	Share of BAs with professional experience (as a percentage of the first professional experience)							
		Top management	Sale	Marketing	Finance	Production/Project	Law	HR	Consultant
Top management	81		32	56	36	28	4	8	12
Sale	35	73		55	55	45	0	0	27
Marketing	52	88	38		50	25	6	13	19
Finance	42	69	46	62		23	8	8	15
Production/project	29	78	56	44	33		11	22	11
Law	10	33	0	33	33	33		67	0
HR	10	67	0	67	33	67	67		0
Consultant	13	75	75	75	50	25	0	0	

Source: Own research.

categories in the interval between 5 and 10 years and over 10 years. This may indicate spreading the phenomenon of Business Angel investors to a wider population in recent years. A higher share of investors in the 3-to-5-year category compared to the 5-to-10-year category may be interpreted as a result of the decision some investors with longer experience to abandon their activity (e.g., due to unsuccessful investments) or as a result of the attractiveness of the informal venture capital market for new investors.

When considering the issue of the length of experience in investing in the informal venture capital market, we conclude that more than 1/3 of the respondents report experience in the range 3–5 years and another 29% in the range 6–10 years. The results also confirm the predictable trend, namely that the experience of younger BAs is significantly shorter compared to their more mature ‘counterparts’.

Table 6. Educational backgrounds of investors.

Higher education		Management education		Academic degree Ph.D.	
<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
21	67.74	10	32.26	2	6.45

Source: Own research.

Table 7. Investment experience in informal venture capital market according to age categories.

Experience (in years)	<1		1–2		3–5		6–10		>10		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<30	1	3.23	0	0.00	1	3.23	0	0.00	0	0.00	2	6.45
30–40	0	0.00	2	6.45	0	0.00	1	3.23	0	0.00	3	9.68
40–50	0	0.00	2	6.45	3	9.68	2	6.45	0	0.00	7	22.58
50–60	0	0.00	0	0.00	3	9.68	5	16.13	4	12.90	12	38.71
>60	0	0.00	0	0.00	4	12.90	1	3.23	2	6.45	7	22.58
In total	1	3.23	4	12.90	11	35.48	9	29.03	6	19.35	31	100

Source: Own research.

By comparing the responses related to the length of experience of investing in an informal VC market and the declared number of investments already made, it is possible to obtain a reasonable estimate of the average number of projects in which a typical BA has participated (Table 8). The highest frequency has been found in the category of investors who have participated in up to ten or twenty projects. The investment activity of the examined BAs varies considerably, as the research sample includes the respondents indicating ‘tens of investments’ on the one hand and an investor involved in just one project on the other. It can be said that with the length of investment experience, the number of completed projects is growing.

The average number of projects which an investor completes over a year varies depending on the length of experience. Using the median of the intervals specified in Table 8, it can be seen that the activity of the BAs who have invested for a shorter period of time reaches higher values compared to those with longer investment experience (Table 9). The highest values of the average number of projects reach the category of investors declaring investment experience in the range 3–5 years. The combination of both indicators suggests that BAs have been entering the Czech informal VC market over the past 3–5 years, which significantly increase the dynamics of investment activity. The highest values of the average number of projects has been reached in the category of investors declaring investment experience in the range 3–5 years. The combination of both indicators implies that the BAs have been entering the Czech informal VC market over the past 3–5 years, thus significantly increasing the dynamics of investment activity.

As shown in Table 10, the BAs are also people who have extensive experience in setting up businesses (there is only a very small proportion of the respondents without entrepreneurial experience).

Table 11 shows the respondents’ future intentions, depending on the length of their experience. It is obvious that the BAs in the category of experience ranging from 3 to 5 years show a significantly higher willingness to expand their scope of activities, i.e., the portfolio of funded projects. The value of affirmative answers in the specific category is at the level of 64% (7/11), while on average 50% of the respondents are positive about the intention to increase their investment activity. This

Table 8. Number of investments and investment experience.

Investment volume Investment experience (in years) [®]	One project		Two projects		Up to five projects		Up to ten projects		Up to twenty projects		More than twenty projects		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
	<1	0	0.00	1	3.23	0	0.00	0	0.00	0	0.00	0	0.00	1
1 – 2	1	3.23	3	9.68	0	0.00	0	0.00	0	0.00	0	0.00	4	12.9
3 – 5	1	3.23	0	0.00	3	9.68	3	9.68	3	9.68	1	3.23	11	35.5
6 – 10	0	0.00	0	0.00	1	3.23	3	9.68	4	12.90	1	3.23	9	29.0
>10	0	0.00	0	0.00	1	3.23	3	9.68	0	0.00	2	6.45	6	19.4
In total	2	6.45	4	12.9	5	16.1	9	29.0	7	22.6	4	12.9	31	100

Source: Own research.

Table 9. Number of projects and investment experience.

Investment experience (in years)	Annual average number of projects
<1	2.00
1 – 2	1.17
3 – 5	2.55
6 – 10	1.75
>10	0.98
In total	1.82

Source: Own research.

Table 10. Experience with setting up a business.

Experience with setting up a business		No experience with setting up a business		Experience with setting up a business is not considered important	
<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
26	83.87	2	6.45	3	9.68

Source: Own research.

development may be influenced by the current phase of the business cycle or the current success of the business sectors, which strengthens the new coming BAs in their willingness to expand their investment activities. Investors who have been engaged in their activities for the shortest time are most often ready to change (increase or reduce the scope of their activity). It may be assumed that their attitudes (plans) reflect the confrontation of their ideas with reality.

Table 12 shows the relation of the sector of the respondents' work experience (table rows) with the field of their investment activity (table columns). The penultimate table row expresses the sum of investment shares of the respondents in individual sectors. The last row shows the share of all BAs investing in the relevant field (the sum of the values of the last row is greater than 100%, as some BAs are involved in more than one sector). It is obvious that the respondents with experience in ICT are mostly investing again in ICT, which is not surprising with respect to their professional backgrounds. On the contrary, the BAs with work experience from other sectors are not so persistent on the particular sector. It is also worth mentioning the result indicating that the investors from the ICT and, R&D/Project Management sectors prefer services as their target sector. Among other things, these groups of respondents emphasise more frequently that their

Table 11. Investors' intentions in terms of informal VC investments.

Intention Investment experience (in years) ⁽⁸⁾	'I intend to continue my investment activity'		'I intend to close or reduce my investments'		'I intend to enlarge my investment activity'		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<1	0	0.00	0	0.00	1	3.23	1	3.23
1 – 2	0	0.00	1	3.23	3	9.68	4	12.90
3 – 5	3	9.68	1	3.23	7	22.58	11	35.49
6 – 10	4	12.90	1	3.23	4	12.92	9	29.03
>10	4	12.90	1	3.23	1	3.23	6	19.35
In Total	11	35.48	4	12.92	16	51.61	31	100.00

Source: Own research.

Table 12. Professional experience of the respondents and share of selected industries on the total investment volume.

Industries Professional experience in the industry ⁽⁸⁾	Computer and electronics		Communications		Services		No preferences		'It comes to people'	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
Computer and electronics	11	35.48	10	32.26	12	38.71	10	32.26	5	16.13
Communications	7	22.58	10	32.26	0	0.00	2	6.45	4	12.90
Project/R&D	3	9.68	3	9.68	12	38.71	8	25.81	9	29.03
Production	7	22.58	4	12.90	4	12.90	7	20	9	29.03
Services	3	9.68	4	12.90	3	9.68	4	12.90	4	12.90
In total	31	100.0	31	100.0	31	100.0	31	100.0	31	100.0
Investments by industry as % of total projects	19	61.29	9	29.03	8	25.81	15	48.39	14	45.16

Source: Own research.

investment decisions are influenced by the entrepreneur and the team ('It comes to people'), or are not persistent on a specific target investment sector.

4.3. BAs' perceptions of net wealth, investment volume, and level of involvement

The surveyed BAs were also asked about the perceived level of their income and wealth. The results of the interviews indicated that most BAs feel financially 'secure'. This perception is intensified in the higher age categories, while the investors under the age of 40 years are 'not completely' satisfied with the level of their financial security. For this group, it can therefore be assumed that when deciding to participate in a project, the return on investment criterion will be a stronger incentive compared to their older peers. Some respondents refused to comment on the question of income and wealth. However, it is obvious from the other answers that the BAs generally consider themselves to be security persons in terms of property or at least on the above-average level (Table 13).

The BAs were also asked about the share of the informal VC investments in their total assets. Three categories of investors may be identified based on the answers. This is a marginal issue for the first category of the BAs in terms of VC investment's share in their total assets. The investment failure would not mean a substantial change in their property situation. At the same time, this group of investors does not pay 'too much attention' to the investment management (those investors take

Table 13. Perceived wealth and income of the BAs (frequency in %).

Age category	'I feel sufficiently financially secure'		'I feel financially secure above average'		I am not completely satisfied with the level of my financial security		The respondent refuses to answer		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<30	0	0.00	1	3.23	1	3.23	0	0.00	2	6.45
30 – 40	0	0.00	0	0.00	3	9.68	0	0.00	3	9.68
40 – 50	4	12.90	0	0.00	2	6.45	1	3.23	7	22.58
50 – 60	7	22.58	5	16.13	0	0.00	0	0.00	12	38.71
>60	5	16.13	0	0.00	1	3.23	1	3.23	7	22.58
In total	16	51.61	6	19.35	7	22.58	2	6.45	31	100.00

Source: Own research.

predominantly a passive or 'hands-off' role in investee companies). These are investors where the sum of the shares in all investee companies represents a maximum of 10% of their total assets. The second and most significant group in terms of the share is represented by those BAs who invest a substantial part of their assets (up to 20% of their assets), yet either due to risk diversification or focusing on other business activities, they have certain limits. The third category of investors is defined as entities that have invested more than 20% of their assets in VC projects. Such BAs typically take an active approach in investee companies, which might be defined as contributions in the form of equity, contacts and specific know-how.

In the case of the BAs under 30 years of age, VC investments represent more than 20% of their assets. This may be in part interpreted as a consequence of the fact that these persons have in absolute terms a lower level of wealth (assets), which implies that *ceteris paribus*, the same level of investment in this age category results in a higher proportion of total assets. It is also worth mentioning the age category of 50 – 60 years, in which 19% of investors admit that VC projects account for more than 20% of their assets. In the age group over 60 years, the financial exposure of the survey investors decreases, yet remaining high. For details see [Table 14](#).

4.4. Co-operation with partners and investment in debt and equity

The entry of one investor into a project is very often accompanied with the participation of other BAs (71% of the respondents admit some form of cooperation with other BAs). Some investors even make the participation in projects condition upon entry of other BAs. The reasoning behind this, as they report, is that this behaviour is the result of not only experience, knowledge, and contacts, but also the awareness that selecting and monitoring a project by multiple entities reduces the investment risk. Especially in the case of those BAs who invest the smallest share of their assets, the share of those who enter projects in cooperation with other investors is the highest. A large proportion of BAs (20%) even claim that without other partners, they would not participate in financing projects at all. It is also interesting to note that the share of projects completed in cooperation is decreasing as the volume of funds invested in equity increases (amounts invested in equity from an individual investor to the investee).

The high level of cooperation between BAs corresponds to the theoretical knowledge of how investors communicate with each other and the role played by networks

Table 14. Share of risk investments on BAs' assets according to age categories (frequency in %).

Share of risk investments on BA's assets Age category [®]	Up to 10%		Up to 20%		Over 20%		In total	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
<30	0	0.00	0	0.00	2	6.45	2	6.45
30 – 40	1	3.23	1	3.23	1	3.23	3	9.68
40 – 50	3	9.68	3	9.68	1	3.23	7	22.58
50 – 60	1	3.23	5	16.13	6	19.35	12	38.71
>60	2	6.45	4	12.90	1	3.23	7	22.58
In total	7	22.58	13	41.94	11	35.48	31	100.00

Source: Own research.

and investment groupings in the informal VC market (The World Bank Group, 2018). For example, information sharing is the most frequent manner how BAs learn about a project or are invited to participate in it. The role of BAs also consists in mediating references to entrepreneurs who are interested in capital investment. As additional benefits of cooperation, the investors mention expertise, knowledge or contacts to other BAs which 'could be useful in investing'. Interestingly, sharing the risk (co-financing) is the least appreciated advantage of the cooperation, even though it takes place quite frequently. On the contrary, a much more frequently appreciated advantage of cooperation consists in joint project monitoring. This defined benefit may be interpreted as a competence invested into the project by another BA and on which the evaluating investor may rely in their investment decisions. In terms of disadvantages, potential disputes between investors are mentioned most frequently. The frequency of evaluating the advantages and disadvantages of cooperation between Business Angel investors is shown in Table 15.

BAs invest not only equity in investee companies, but they also very often provide debt financing. In this respect, the participation of an external investor is associated to the access to bank financing by the investee company. Using bank resources may be seen by the BAs as an opportunity to increase the return on invested capital (ROI). In contrast to the situation where the BAs would draw bank loans directly and then invest them in the project, direct capital investment takes place (BAs provide equity to the investee in the first stage) and only the subsequent debt of the investee company increases the potential return but also risks, especially from the point of view of the original shareholders who initiated external capital participation.

Table 16 summarises the relative frequencies of the answers to the above questions. Since some Business Angel investors report more co-financing entities or multiple approaches, the sum of the relative frequencies is not 100%.

4.5. Investment type

As for the investment type, none of the surveyed BAs enter all stages of the project lifecycle, i.e., there is a selection of specific stages in which the investor will be involved. Some Business Angel investors explicitly avoid projects in crisis or start-up projects, most frequently due to their time and resource demands and therefore the need to apply the hands-on approach. This applies in particular to those BAs who invest a smaller share of their assets (16% of investors with VC investment up to 10% of their assets are willing to support mature projects only, while for example only 3%

Table 15. Co-operation with other BAs.

Co-operation with other Bas	Yes		Sometimes	No
<i>N</i>	22		5	4
% of <i>n</i>	70.97		16.13	12.9
Form of co-operation	Sharing opportunities/ invitations	Recommendation/ contacts	Expertise/ monitoring	Co-financing
<i>N</i>	15	26	21	21
% of <i>n</i>	48.39	83.87	67.74	67.74
Advantages/ dis-advantages of co-operation	Risk sharing	Joint monitoring	Contacts	Possible disputes
<i>N</i>	8	15	22	20
% of <i>n</i>	25.81	48.39	70.97	64.52

Source: Own research.

of the respondents are willing to support start-up projects). Investors with a lower share of VC investment in their assets also refuse to participate in increasing the scope of business. On the contrary, their representation is above average in the case of ‘mature’ projects. The cause of this situation may be seen in the range of available deployed assets for this type of projects.

Table 17 shows the relative frequency of willingness (unwillingness) of Business Angel investors to participate in projects according to their stage. Again, the sum does not amount to 100%, as the BAs often express their willingness to participate in different stages of projects depending on the amount of assets invested in VC activities.

5. Discussion

In this article, we used an inclusive definition of BA populations based on ten areas proposed in prior academic studies (Argerich & Cruz-Cázares, 2016; Farrell et al., 2008) in order to detect this category of VCs regardless of its nuances. We argue that the Czech informal VC market is underdeveloped, immature and unexplored and thus with limited sampling choices. A narrow definition of the phenomena could set too strict limits and thus restrict access to a wider and up to now unknown population of respondents. Although snowball sampling raises issues due to non-representativeness, unidentifiable bias and difficulties to undertake comparisons (Argerich & Cruz-Cázares, 2017; Farrell et al., 2008; Harrison & Mason, 1992; World Bank Group, 2018), this approach seems to us to represent the only realistic approach how to collect data from populations which remain widely non-institutionalised, invisible and with limited access.

What do our survey results allow us say about either of our research issues?

First, what are the demographic profiles of Czech BAs? In this respect, most of the findings were quite expected. The typical Czech BA is male; hence, the gender structure of our sample does not differ significantly from prior studies (e.g., Landström & Mason, 2016; Månsson & Landström, 2006; Stedler & Peters, 2003), although an increasing number of researchers draws attention to the growing share of female BAs, see e.g., May and Liu (2015) in the US. The most frequent age group is from 50 to 60 years, yet there is also a strong share of investors from 40 to 50 years. In terms of

Table 16. Participation of co-financing partners on VC projects (frequency in %).

Participation of co-financing partners Share of risk investments on BAS' assets [®]	A bank		Another partner (BA)		No partner		The investor requires the participation of another partner	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>N</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
Up to 10%	3	9.68	4	12.90	0	0.00	2	6.46
Up to 20%	8	25.81	10	32.26	2	6.46	2	6.46
Over 20%	8	25.81	8	25.81	3	9.68	3	9.68
In total	19	61.30	22	70.97	5	16.14	7	22.60

Source: Own research.

Table 17. Investment types (frequency in %).

Investment types (stages) Share of risk investments on BAS' assets [®]	Start-up financing		'Mature' projects		Commercialisation of projects		Expansion financing		'No projects in crisis'	
	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>	<i>n</i>	% of <i>n</i>
Up to 10%	1	3.23	5	16.13	1	3.23	0	0.00	1	3.23
Up to 20%	7	22.60	7	22.60	3	9.68	2	6.45	3	9.68
Over 20%	7	22.60	6	19.35	3	9.68	3	9.68	3	9.68
In total	15	48.43	18	58.08	7	22.59	5	16.13	7	22.59

Source: Own research.

demographic characteristics, the profile of Czech BAs is close to that of their West European counterparts. Stedler and Peters (2003) confirm a strong representation of the age group 40–55 years in Germany and also Landström (1993, 2007) state that the typical informal investor in Sweden is middle-aged. The study by Maula et al. (2005) reports the average age of a BA investor in Finland of 43 years.

Similarly to other countries (Lindsay, 2004), Czech BAs are also persons with above-average education who have frequently completed post-graduate management courses (MBA, LL.M, etc.). In this respect, our results somehow contradict The World Bank Study (2018), which reports 'a general lack of interest to be educated' on the side of the Czech informal investors. Our results also indicate that in addition to theoretical knowledge, the BAs also have extensive experience in their own business or in the management of companies as hired managers. On average, they have held 2 to 3 job position. Most frequently, the BAs identify themselves as leaders, entrepreneurs, former entrepreneurs or investors and less frequently as managers. The 'investors' category is more frequent in the higher age categories.

Furthermore, we deliver empirical evidence that interviewed BAs perceive in general the level of their income and wealth as sufficient. Typically, they say that 'they are secured persons in terms of property' or even belong to a group of people with above-average incomes. In this respect, it is also worth mentioning. The World Bank Group (2018) study, which points out that in comparison with other markets in the CEE region (specifically mentioning Estonia), the Czech informal VC market comprises a relatively small number of very rich investors (referred to as 'super angels'). Within the academia, there have been repeated discussions about the extent to which the research preferentially focusing on 'high net worth investors' distorts our perspective of the informal VC market. Some authors define BAs directly as 'high net worth investors' (Hindle & Wenban, 1999) or compile the research sample from the high-

income population (Reitan & Sørheim, 2000; Tashiro, 1999). On the contrary, some other authors point out to the potential pitfalls of this approach (Månsson & Landström, 2006), or recommend not taking into account the criteria of 'net worth' and 'net income' at all in research activities (e.g., Argerich & Cruz-Cázares, 2017; Brettel, 2002; Farrell et al., 2008; Stedler & Peters, 2003). For future research in the context of the Czech Republic, it is therefore advisable to limit the impact of wealth on the formation of the research sample, which nevertheless poses the researchers with a challenge to identify a wider (not yet mapped) investor population and how to ensure data collection in this regard.

In terms of the industries in which BAs invest, the ICT sectors have a dominant position. In this respect, our study confirms the findings reported in the World Bank Group study World Bank Group, (2018). In comparison to Estonia or Belgium, where also other investee industries occur, the Czech BAs are almost exclusively focused on 'cyber security, software, and other mobile applications'. This one-sided orientation might be due to the following two factors: the entry hurdles in terms of capital requirements are very low here and there is an almost invisible deal flow from other sectors on the market, which would allow a sectoral diversification.

The next research question explicitly addressed the skills of BAs to conduct informal VC investments. In its main features, the findings show many similarities to early studies as summarised by Landström and Mason (2016). A 'typical' BA has experience in ICT and these industries are also preferred in terms of project acquisition. The most numerous is the group of investors who have engaged in this activity in the range 3–5 years. This category of investors report that they carry out an average of 2.5 projects per year. In this respect, a certain under-dimensioning of the Czech informal VC market can be observed as previous research indicated up to four projects per year conducted by BAs in well-developed countries (Prowse 1998 cited in Festel & De Cleyn, 2013).

The vast majority of the surveyed BAs admit some cooperation with other investors ranging from getting references to potential projects (deal flow) to co-investing/syndication. We show that co-operation with other BAs, which is in some cases facilitated through the BAN, generates valuable contacts, specialised expertise, and risk sharing effects. This approach ultimately reduces the share of personal assets invested by individual BAs and their equity stakes in investee companies. Some BAs make their involvement in a project explicitly conditional upon the participation of another investor, especially in the case of those investing smaller amounts. Similar approaches how to facilitate risk investments are also reported for other European markets (Bonini et al. 2018; Stedler & Peters, 2003). Unlike the results of the World Bank Group (2018) study, which points out the 'lack of syndication' and thus 'a lower level of portfolio diversification', our research indicates that co-financing of projects is quite frequent among Czech BAs, even in this context the mediating role of the BAN is mentioned in some cases. However, syndication is not perceived by the respondents as a clear advantage; on the contrary, it is referred to as a source of possible conflicts between partners. This perception suggests that that informal investing in the Czech Republic is rather based on 'individualistic' and 'secretive' attitudes.

In terms of deal structuring, our empirical evidence supports the arguments raised by Landström and Mason (2016) that BAs predominantly invest equity capital but

they may also leverage banking finance. The fact that informal VCs provide investee companies with additional financial sources can be interpreted as an indicator of the hands-on approach. The way how the relationship between the informal investor and the investee company is organised also depends on the share of VC investment in total assets of a BA. Those investors who invest more than 20% of their assets in VC projects tend to be very active in the areas such as the transfer of know-how, consultancy or mediating contacts within the supply and customer chains. Nevertheless, we recorded a very low level of willingness to participate in start-up investments and those aiming at significant expansion and thus high resource demands, as well as projects in the critical stage of their life cycle. Prioritising established companies and thus an equity capital gap for pre-start-ups is also reported in other studies and countries (Landström, 1993; The World Bank Group, 2018). In this context, it is also necessary to confirm the limited availability of ‘smart money’, also mentioned in the World Bank Group Study (2018).

6. Conclusions

In this article, we enhance our knowledge and understanding of the BAs’ characteristics and classification in the Czech Republic while providing a unique dataset based on 31 qualitative interviews conducted in 2018. We analysed the heterogeneous response of investors and found that they share many of the characteristics reported for well-developed markets in the USA, UK and continental Europe. The Czech BAs are usually males, middle aged, with high school backgrounds and further educational achievements in MBA courses. They are trained or experienced in entrepreneurship or have the status as a hired or owner manager in a firm. Furthermore, ICT is generally the most targeted industry amongst business angels, with a very close link to their professional experience. The sectors in which they identify themselves as experts represent the most common field of investment. Similar to their foreign counterparts, they are financially well-off, although we have to differentiate in regard to age categories. Furthermore, the annual amount of deals a BA has in their portfolio is between 2 and 3, which is below standards reported in prior studies. Informal VCs in the Czech Republic co-operate with other BAs as these are a very common channel how they facilitate the deal flow, how they share contacts, experience and expertise and how they mitigate risks. Somewhat surprisingly, we found that having a co-financing partner in order to reduce risks is an approach which is not perceived as very popular. Czech BAs are ‘hands on’ investors in the sense they provide investee companies with advice, insights, knowledge, and contacts particularly if BA projects amount more than 20% of their assets. In terms of the investment type, we identified an equity capital gap for pre-start-ups and expansion-stage companies.

We believe that the research findings have critical implications for investors, investee companies and public administration. The crucial issue is what measure should be implemented in order to increase the BA activity in the country? Our set of proposals is focused on the gaps identified on the supply side of the market.

In the context of the Czech Republic, the main issue is the lack of knowledge of the informal VC market. Unlike the formal VC market, there is no database which

would allow at least a framework analysis of BAs' activities in the country on a regular (longitudinal) basis. There is a lack of trend based data on e.g., the number of contracts, deals size, deal structuring, investment types, investment sectors, locations of BAs and investee companies, etc. In this respect, we can simply follow the proposal formulated in the World Bank Group Study (2018) that government authorities with the competence in developing the BA market develop a concept of data collection based on interviews with stakeholders and publish the results annually in the form of annual reports. Another way to build a data base consists in the government support for developing business angel networks and business angel groups, which will be in charge of collecting and evaluating data, as suggested, for example, by White and Dumay (2017). The question is whether, with respect to our research results, the public support should not focus primarily on the establishment of business angel groups, which currently represent a dynamically developing market structure in the world (Mason et al., 2019). Angel groups co-operate and pool their capital and expertise while angel networks are sometimes understood just as an online group or mailing list of BAs. Also according to the World Bank Group (2018), angel groups are becoming more and more popular in well-developed markets, in particular among rather inexperienced business angels, who can learn how to identify and assess investment opportunities. In any case, whether angel networks or angel groups, both organisational forms should serve the public administration and the industry as a partner for 'policy development and implementation' (The World Bank Group, 2018).

We also recommend setting further agenda in the field focused on reducing the current market failure and encouraging the private market participants to enter the early stage projects in particular. Several government-sponsored programs and incentives are being used in order to promote the development of the BA community in well-developed countries (Bonini et al., 2018). Examples of good practice include targeted tax relieves, establishing of a co-investment funds addressing the early stage lack of capital, and educating of prospective investors (for details see e.g., Owen (Baldock) & Mason, 2016). In the Czech Republic, the preferential policies, however, should be focused on establishing and developing a vital angel market because direct funding is likely to fail without effective informal VC market structures (see also 'Policy Recommendations' in the World Bank Group Study, World Bank Group, 2018).

As noted several times in this study, an important limitation of our findings relates to the sampling methodology. The research results are likely to be distorted by using the snowball method of data collection, as there is no publicly available and comprehensive list of the representative population. Furthermore, respondents' opinions and perceptions might be also skewed by the fact that interviews were conducted under favourable macroeconomic conditions.

In order to gain a full understanding of the dynamics on the Czech informal VC market, it seems to be necessary to study it in a long-term perspective and within a broader sample of respondents. The surveyed topics should cover additionally how to increase the number of BAs and the volume of their investments within a broader range of industries, what incentives would increase networking and syndication, and how to foster best practices via targeted training and mentoring within the angel

community. The ultimate goal of such measures is to increase market capacity and transform the financial system more towards the market-based financial system. Therefore, in a follow-up survey, the limitations of our data experiment could be overcome by co-operating with angel networks and angel groups assuming that these will intensify their activities and become the real pools of informal investors in the country.

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