“Business angels as an alternative to financial support at the early stages of small businesses’ life cycle”

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BUSINESS ANGELS AS AN ALTERNATIVE TO FINANCIAL SUPPORT AT THE EARLY STAGES OF SMALL BUSINESSES' LIFE CYCLE

Abstract

In the process of small business establishment and development, it is very important to understand both the financial needs of entrepreneurs and the main obstacles and difficulties arising in the way of financing. Alternative sources of financial support, along with traditional ones, create opportunities to increase funds, but the solution to the issue of their attraction should be based on modern effective methods and decision-making technologies. The article uses the decision tree method to determine the optimal alternative to financial support of small business at the early stages of the life cycle. The results highlight the importance of alternative source of resources for small business entities, namely business angels' means. The empirical and statistical analysis confirms that access to alternative sources of financing for small businesses in EU countries is improving, while in Ukraine, informal financing is a rather new and underdeveloped area. Based on the analysis of the advantages of using the business angels' funds, it was concluded that they need to implement their potential in small business of Ukraine. The results show that the decision tree method is an effective tool for deciding on the prioritization of a financial alternative to the small business, and is characterized by ease of use, forecast precision and problems solution novelty.

Keywords financial support, small business, financial resources, business angels, decision tree

JEL Classification G17, G30, G39

INTRODUCTION

Access to financing is one of the key issues for small business entities (hereafter SBEs) in the process of their creation, existence and development. The study of the current state of small business in Ukraine points to the financial difficulties at the initial stages of the life cycle, which determine the need to increase the importance of alternative sources of external financing and provide an instrument for governments and other stakeholders to understand the SBE financing needs. EU states experience proves the need to support and develop informal investment at the stage of small business formation and to develop and evaluate government measures to increase the domestic small business attractiveness.

1. LITERATURE REVIEW

Many modern academics are actively involved with the issues of alternative sources of financial support for small business. Tobekani and Robertson define financial constraints as one of the main problems at the stage of small business creation, and emphasize that financial in-

termediaries are reluctant to provide loans to newly created businesses due to high riskiness (Thobekani & Robertson, 2016). For example, Worku has determined that among the 1058 subjects of small business surveyed at the startup stage, the main part of capital is their own funds and the help of relatives and friends (28.54% and 29.21%), while the attraction of funds from other alternative sources (except for bank loans) is only 5.48% in the structure (Worku, 2016). At the same time, Kolodiziev, Tyshchenko and Azizova, while investigating the pros and cons of attracting funds to the private sector from various sources of capital, consider possibility of their use at later stages of the life cycle as a negative attribute of bank loans, as opposed to the informal investors' funds (business angels and crowd funding) that are intended to finance the start-up and establishment of business (Kolodiziev et al., 2017). IT Launchpad studies show that, in terms of investment in small and medium enterprises, business angels invest at least twice as much as institutional venture funds and banking institutions (IT Launchpad, 2013). Silver, Berggren and Fili give statistics on the reduction of 80-90% of investment by professional venture capitalists at the early stages of small business development over the last decade, while investments by unofficial investors have a reversible tendency to increase (Silver et al., 2016).

Seymour and Vetzel gave one of the first definitions of informal investors, which characterizes them as investors providing risk capital, in addition to corporate investments, venture capital, other institutional investors and state-owned equity markets (Seymour & Wetzel, 1981). Global Business Monitoring determines the proportion of informal investors as a percentage of the population aged 18-64 who personally allocated funds to a new business started by another entity over the past three years (GEM, 2016). In addition, informal investors include GEM business angels as well as family members or friends (GEM, 2017). Mason and Harrison, while defining the notion of business angels, emphasize that they invest their own money directly into the startup, and at later stages of development, they can act as advisers or board members (Mason & Harrison, 1994). Ibrahim drew attention to the fact that business angels invest in high-tech factories (Ibrahim, 2010). Lupenko and Feshchenko define business angels as investors in risky and promising projects (Lupenko & Feshchenko, 2015). Aleksandrova recognizes possibility of innovative projects financing at early stages as an advantage of attracting business angels' funds (Aleksandrova, 2012). Buzadzhy, Ulianytska and Yaroshenko consider investment activity as a necessary condition of investment of funds by business angels (Buzadzhy et al., 2011; Ulianytska & Yaroshenko, 2009). At the same time, the latter, investigating the private investors essence and peculiarities, emphasize the importance of their influence on small business and the possibilities for developing the Institute of Business Angels in Ukraine (Ulianytska & Yaroshenko, 2009). Various European studies show that there is a tendency in Europe to increase the number of business angels as an alternative form of financing along with traditional financial resources (by relatives, friends, bank loans, etc.) and their positive impact on the economic growth of small business and as a result of the economic growth as a whole (EBAN, 2014–2016; European Commission, 2015; GEM, 2016–2017; OECD, 2015). From the IT Launchpad standpoint, business angels are beneficial investors because, besides financial services, they can provide advisory services using their own knowledge and skills for business development; give loan guarantees; invest in various industries and activities; increase the business attractiveness for other contributors. In addition, according to the authors, the financial market for business angels is geographically wider than that for venture capital, and, therefore, business angels can be found not only in major financial centers (IT Launchpad, 2013).

At the same time, domestic statistics show insufficient development of "angelic financing" in Ukraine (Institute of Business Freedom, 2016; Ukrainian Association of Investment Business, 2016), due to insufficient awareness of this source of financial support benefits over alternative resources, and information asymmetry between potential investors and SBEs. According to Kolesnik, the lack of legal provisions for domestic business angels is the key reason for the inhibiting private investment institution development in Ukraine (Kolyesnik, 2011).

The purpose of the article is to study the role of business angels in shaping the financial support of small business and to determine the level of its priority among alternative sources of financing.

2. RESEARCH FINDINGS

The development of the EU stock market contributed to the development of small business investment, resulting in the concept of "private equity financing" becoming widespread, which, unlike the traditional investment of current business, involves investment at the stage of the business' start-up and establishment. Direct private investment can be used to develop a new type of product or technology, increase working capital, purchase other companies or improve the balance sheet structure of the enterprise. In addition, private equity can be used to address property and corporate governance issues (Buzadzhy, 2011). In this case, funding recipients are generally divided into two groups: informal and formal (Figure 1).

The informal investors include founders, friends, family and business angels. It is precisely they, as OECD reports state, that are the only entities involved in the financing of business start-up and establishment, and at the later stages of their activity, they can be joined by formal (or professional) investors, which include venture, investment funds, insurance companies, hedge funds and other financial institutions that take the risk of providing non-collateral funds (OECD, 2015).

In the EU today, business angels are the main source of funding for activities from the very start until the time when state-owned funds are interested in financing. As a result, stock market players such as business angels have not become wide popular, and the startup in the small business is financed at the expense of own funds, savings, as well as relatives' and friends' assistance.

Statistics show that there is a tendency in Europe to increase the number of business angels and business angel networks (EBAN, 2014–2016). In addition, the processes of organizing business angels improve. In particular, they began collaborating in syndicates and groups to improve investment efficiency (OECD, 2015) and not only provide financial support to enterprises, but also take an active part in the companies' activities (EBAN, 2016). In addition, it should be noted that in some countries there are various forms of state support for business angels (European Commission, 2015).

Business angels have a number of specific features that distinguish them from venture capitalists (Table 1).

Venture capitalists raise money from private or state funds in order to further invest them in business entities. During the accumulation of venture capital funds, companies will incur significant administrative costs, so they carefully select those funding projects that should ensure return on investment with additional benefits. Consequently, they make less investments in start-ups and the SBE establishment stages, which makes business angels more valuable actors in the private equity market.

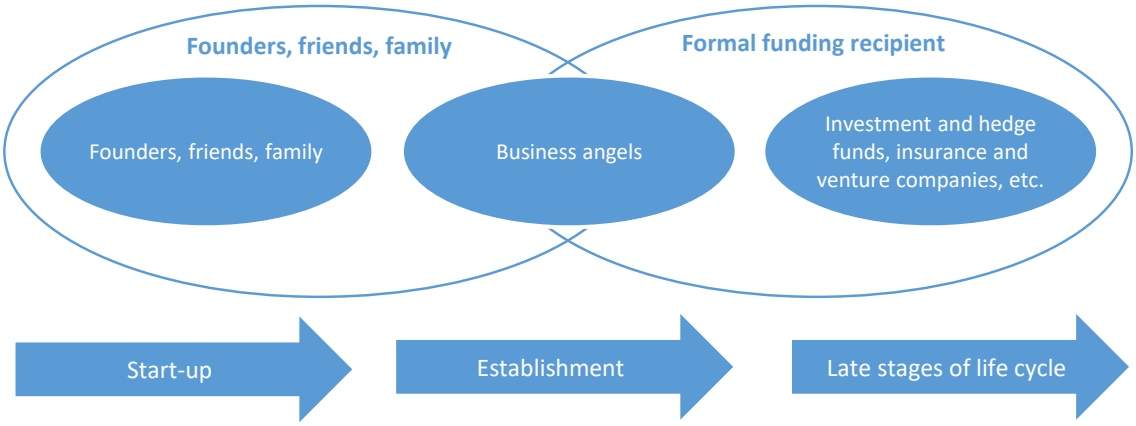


Figure 1. Capital investors at the start-up, establishment and late stages of a SBE life cycle

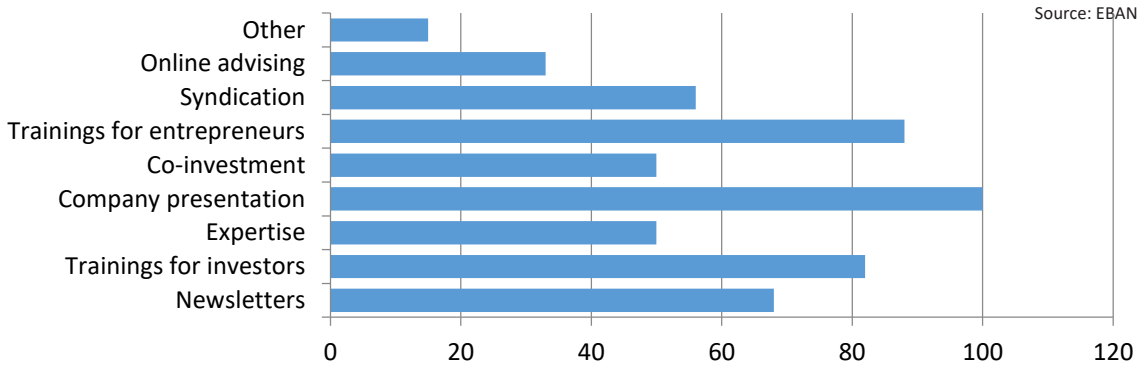


Figure 2. Distribution of services provided by EU business angels in 2016 (percentage of the total number of business angels), %

Table 1. Comparative analysis of venture capitalists and business angels

Characteristics	Venture capital institutes	Business angels
Source of funds	Institutional investors that invest borrowed funds under the limited liability terms	Private actors that invest their own funds
Responsibility	Limited personal financial responsibility, but responsibility to management and owners	Full personal financial responsibility
Investment experience and possibilities	Solid investment experience and investment capability	Brief investment experience and limited investment capability
Investment stage	Predominantly late stages of SBE life cycle	Early stages of SBE life cycle
Entry strategy	Necessary	Unnecessary
Investment period duration	3-5 years	3-8 years

In this case, angel investors not only provide money for growth, but also bring their experience and knowledge, which ensures SBE success (Figure 2).

In addition, when choosing a project to finance, business angels pay more attention to innovation activity, while venture capitalists operate according to the "risk-benefit" principle.

According to the European Business Angels Network (EBAN, 2015–2016), investments in the early stages of SBE development in the EU countries by 68% consist of investment of business angels, compared to 25% of venture capital and 7% of crowd funding (capital) (Figure 3).

Business angels often work in networks, private or semi-public organizations, which usually operate at the regional or national level. These networks operate primarily as a search service between investors and entrepreneurs, but do not make any investment decisions. They are designed to minimize information asymmetry between investors and entrepreneurs, improve the flow of informa-

Source: Compiled by authors based on EBAN (2015, 2016).

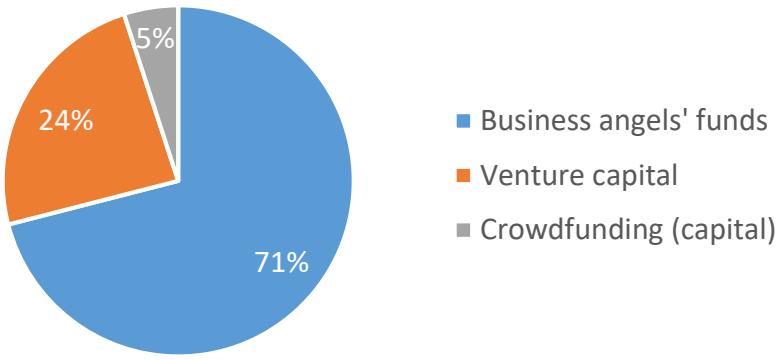


Figure 3. Investment in the early stage of EU SBE life cycle, bln. of Euro/% in 2016

Source: Compiled by authors based on EBAN (2015, 2016).

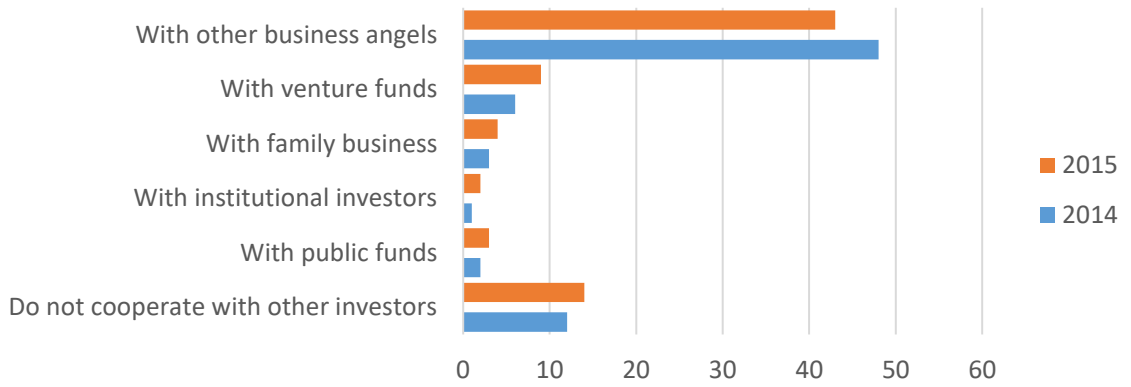


Figure 4. Statistics of project co-investment by EU business angels in 2014–2015 (percentage of the total number of business angels), %

tion and become more and more active in developing potential as business angels in the field of improving investment skills and for small enterprises seeking funding.

Statistics show that the syndication among business angels is increasing (Figure 4), since it provides the opportunity to finance through co-investing those projects whose funds are large enough for only one business angel.

The advantage of investing through a syndication is not limited to risk allocation and investment provision in a diversified business portfolio even with limited resources. Syndicates also serve as a repository where investors bring their capital, skills, contacts and experience to all members' benefit. Of particular importance in this regard is the fact that associations give due attention to their members, from the early stages of checking business plans to complying with the relevant regulation. Syndicates usually cover their expenses by charging fees for their members.

In the European Union, the number of active business angel networks has increased significantly over the past 15 years: from less than 150 in 1999 to more than 200 in 2007 and up to 465 in 2013 (EBAN, 2015–2016; OECD, 2015). According to the European Business Angels Network, the European investment angel market has grown by 4.3% from 2013 to 2014 and by 5% from 2014 to 2015. This is also due to the increase in the number of business angel syndicates (EBAN, 2015–2016).

It should be noted that business angels can be divided into visible and invisible ones. According to the European Business Angels Network, in 2015, the visible share of business angels is 10% (Table 2) and brings investments in the amount of 607 million euros. The invisible share of business angels is much larger and brings in rough estimates of 6.069 million euros for 2015 (EBAN, 2015–2016).

However, it should be emphasized that, depending on the definitions used by informal investors and business angels, methods and methodologies, as well as the quality of quantitative data collection, the estimated number of business angels (primarily the invisible ones) may vary significantly. Mistakes can arise due to collection and processing of data on informal investors and business an-

Table 2. Dynamics of investments of EU business angels in terms of their visible and invisible share in 2014–2016

Source: Compiled by authors based on EBAN (2015, 2016), OECD (2015).

Indicator	2014	2015	2016
Investing in the visible business angel market, mln euros	578	607	667
The share of visible market investments in the total volume of business angels' investments, %	10	10	10
Investing of invisible market of business angels, mln euros	5203	5462	6117
Total volume of investments, mln euros	5781	6069	6672
Number of active business angels, units	288900	303650	312500

Table 3. Dynamics of business angel investments in EU countries for 2007–2016, mln euros

Source: Compiled by authors based on EBAN (2015, 2016), OECD (2015).

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	0,6	0,6	0,3	0,5	–	2,6	2,9	15	16,3	22,0
Belgium	12	7,1	6,8	3,1	–	5,2	10	10,5	11,5	12,0
Bulgaria	–	–	–	–	–	–	2,9	3,3	4,29	5,0
Great Britain	55,7	86	69,8	57,2	–	68,3	84,4	87	96	98,0
Greece	–	–	–	–	–	–	2,1	1,8	2,7	3,2,2
Denmark	–	–	–	–	–	–	11,8	19,8	23	22,8
Estonia	–	–	–	–	–	–	4,7	4,8	6,67	8,8
Ireland	4	2,3	–	6	–	12,1	13,2	12,5	14,4	16,7
Spain	–	–	–	–	–	–	57,6	52,63	55	66,0
Italy	–	31	31,4	34,7	–	–	9,9	11,7	12,25	14,1
Cyprus	–	–	–	–	–	–	0,6	0,71	0,62	0,8
Latvia	–	–	–	–	–	–		0,23	0,76	2,4
Lithuania	–	–	–	–	–	–	2	2,1	1,2	1,1
Luxembourg	–	–	–	–	–	–	1,6	1	2,5	3,9
Netherlands	8,8	8,6	25,3	–	–	10,1	9,8	11,7	12,2	12,5
Germany	34,5	–	–	32,1	–	–	35,1	37	44	51,0
Poland	–	–	–	–	–	–	6,6	9,5	12,35	12,6
Portugal	2,1	1,3	0,6	2,1	–	11,6	13,8	27,85	23,4	16,9
Slovakia	–	–	–	–	–	–	–	1,33	1,75	2,1
Slovenia	–	–	–	–	–	–	–	1,58	1,85	3,3
Finland	9	–	–	29,2	–	14,2	26,4	34,5	36,5	53,0
France	–	60	59	40	–	40	41,1	38	42	42,7
Croatia	–	–	–	–	–	–	0,8	0,4	0,35	1,0
Sweden	3	9,1	9	–	–	23,3	19,4	20,6	21,8	22,4

gels (the survey results are largely dependent on how they are drawn up, how the respondents understand the nature of the questions asked, how respondents are selected, etc.).

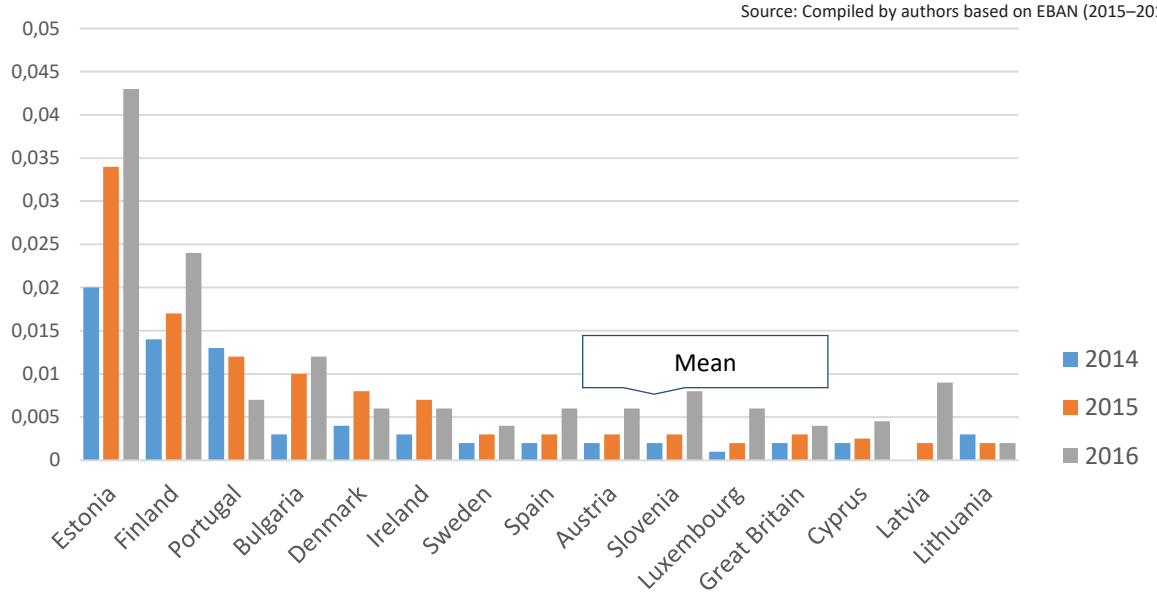
Thus, the data on the visible part of the market, announced by the OECD and EBAN, show an increase in business angel investments in recent years (Table 3) (EBAN, 2015–2016; OECD, 2015).

Table 3 shows the general trend of angel activity growth from 2007 to 2016. As it turned out, the financial crisis has affected the investments of angels in networks of countries such as Belgium, Ireland, Portugal, where activity for 2007–2008 has significantly decreased. These data show that Great Britain is the the leader of business angel investments, which is explained by the investment market development and maturity. However, since the share of angels' investments in the network to the total number of angel business activities can not be measured and may vary significantly in different countries, the data in Table 3 does not allow comparing countries by market size. However, comparing the volume of angelic investments to GDP makes it possible to identify certain prospects for analytics (Figure 5). So, according to calculations, some small countries show high investment angels activity, while countries with higher GDP have an investment factor below the average.

As OECD reports explain, the reason for reducing the number of unofficial investors in EU countries with higher GDP per capita is the increase in government support for start-ups; expansion of financial and credit institutions, which lend young SBE. In addition, the State Guarantee Agency activities facilitate loans and reduce the need to contact informal investors (OECD, 2015). That is why the behavior of young companies' owners may vary greatly in different countries and may affect the number of informal investors and the share of business angels in them.

The largest European network of angels is currently the European Business Angel Network (EBAN), which consists of 62 investor associations in 22 European countries. The status of EBAN members in the post-Soviet space is limited to two investor associations: in Ukraine – the Association of

Source: Compiled by authors based on EBAN (2015–2016).



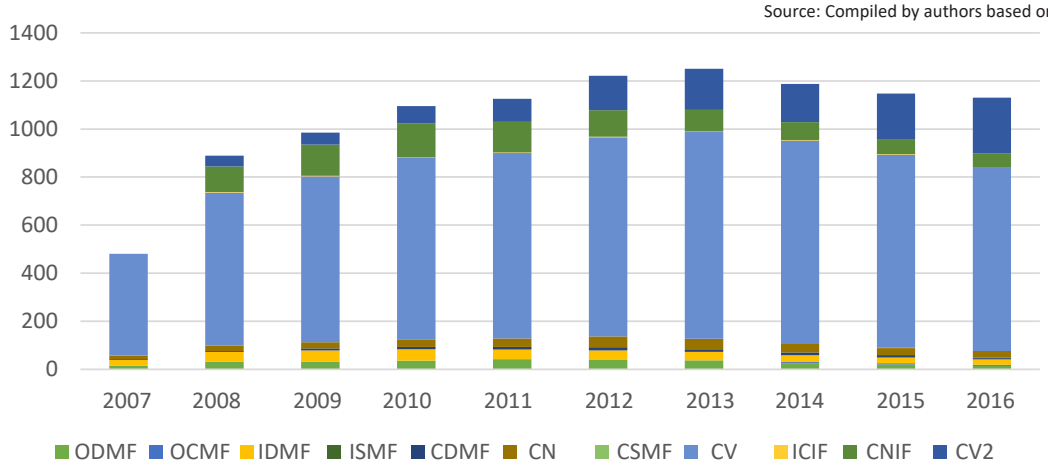
Note: Angelic investment ratio = Business angel investment/GDP*10,000.

Figure 5. Dynamics of angelic investment ratio in EU countries for 2014–2016

Private Investors of Ukraine, and in Russia – the National Commonwealth of Business Angels. Thus, the Association of Private Investors of Ukraine is the only association of private and corporate investors from all regions of Ukraine, which is a full member of the European Business Angel Network (EBAN) and includes about 50 business angels.

The problem of information asymmetry is key not only in determining the number of formal and informal angels in the EU, but also in assessing the angelic business environment in Ukraine. Experts believe that in fact, the number of private investors in Ukraine is significantly greater than Association of Private Investors of Ukraine statistics state. In particular, there are currently 1,130 joint investment institutions operating in part in their functions as syndicates of business angels in the EU. Thus, under the Institute of Collective Investment (ICI) is an investment fund in which investors' funds are accumulated for further profits through investments in securities of other issuers, corporate rights and real estate (UAIB, 2016). In our opinion, the key difference between ICI and business angels is that ICI is investing at all stages of SBE life cycle, while business angels are focusing their activities on the early development phase. That is, ICI is a broader concept and includes business ans

Source: Compiled by authors based on UAIB (2016).



Note: OD – open diversified ICI, OS – open specialized, ID – interval diversified, IS – interval specialized, CD – closed diversified, CS – closed specialized, CN – closed non-diversified non-venture, CV – closed venture ICI (closed non-diversified, with private emission).

Figure 6. Dynamics of the number of ICI in Ukraine for 2007–2016 in terms of types, units

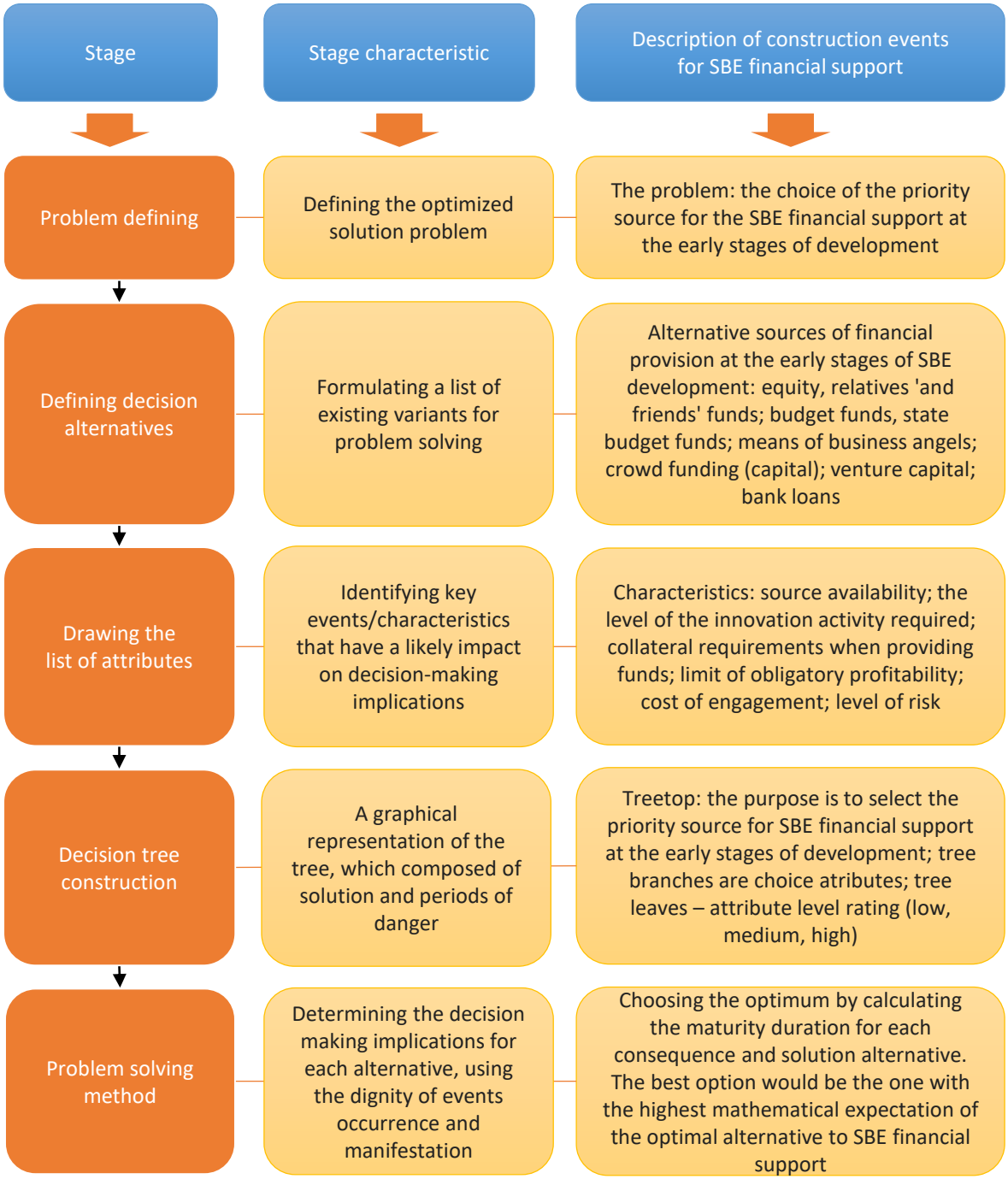


Figure 7. Decision tree algorithm for attracting an optimal source of SBE financial support at the early stages of development

gels when it comes to investing in the early stages of SBE development.

Depending on the way of doing business, ICI are divided into three types: open (daily certificates redemption), interval (certificates redemption at specified intervals) and closed (certificates redemption at the end of the fund's activity). Thus, the data show (Figure 6) that as from 2013, there is a tendency to reduce the number of ICI in Ukraine mainly due to the closed venture ICI quantity reduction. This is due to many factors: from the stale political and economic environment of the country to simply the ineffectiveness of existing sources of information, making it difficult to find potentially attractive investment projects.

Creating networks and business angel syndicates, as is practiced in EU countries, is possible dealing with the lack of information. Entrepreneurs will be able to present their project immediately to many potential investors, and investors in turn will have access to the appropriate database, in which they will be able to select projects of interest to them. This system works in Germany, USA, UK, and Russia (EBAN, 2016). The task of such networks is to provide entrepreneurs with consulting services for project preparation and organization of their presentations.

We believe that dealing with the SBE financial support at the expense of business angels should not be chaotic, but should contain sound calculations based on statistical and mathematical methods that allow constructing scenarios to solve problems and predict the consequences of these decisions. According to Dzhumadilova, Sailaubekova and Kunanbaieva, the planning of activities and the future of the company is a complex process and an important element of management based on the use of fundamental analysis through modern quantitative methods (Dhumadilova et al., 2017).

In recent years, to solve such problems, the method of analyzing the business survival and the method of constructing a decision tree have begun to be used. According to Gepp and Kumar, these methods are identical with each other, since they are intended to solve one and the same task of making a managerial decision taking into account existing risks under uncertainty (Gepp & Kumar, 2015). The authors note that these models are actually operating in practice, but the condition for obtaining a precise forecast is to check not only the correctness of constructing the model, but also used to predict the data before the construction phase. In this case, these methods comparison led to the conclusion about the best accuracy of classifying the decision tree method (Gepp & Kumar, 2015). Therefore, in order to address the issue of involving business angels in the financial support of small business enterprises we propose to use a decision tree method. Decision tree is a method of situational analysis, the essence of which is making managerial decisions in terms of risk assessment on a particular issue, which arises as a result of any project implementation (Kupalova, 2008). Decision tree is a technique that is used both to classify and to predict the results that are graphically displayed in the form of a tree that has a hierarchy of logical rules, established automatically by studying the database of attributes. So, the decision tree is based on attributes (characteristics) that are used as the basis for separating different classes. The solution process involves passing through the stages of analyzing a set of data available and using the rules for deciding on their classification. The proposed algorithm for constructing a decision tree as to attracting an optimal source of financial support at early stages of SBE development is shown in Figure 7.

A mathematical basis for measuring the information content of a decision tree and determining the optimal alternative is a function that is described by the following formulae:

$$Emj = \sum_{j=1}^{n} p_j \cdot R_{ij}, \quad (1)$$

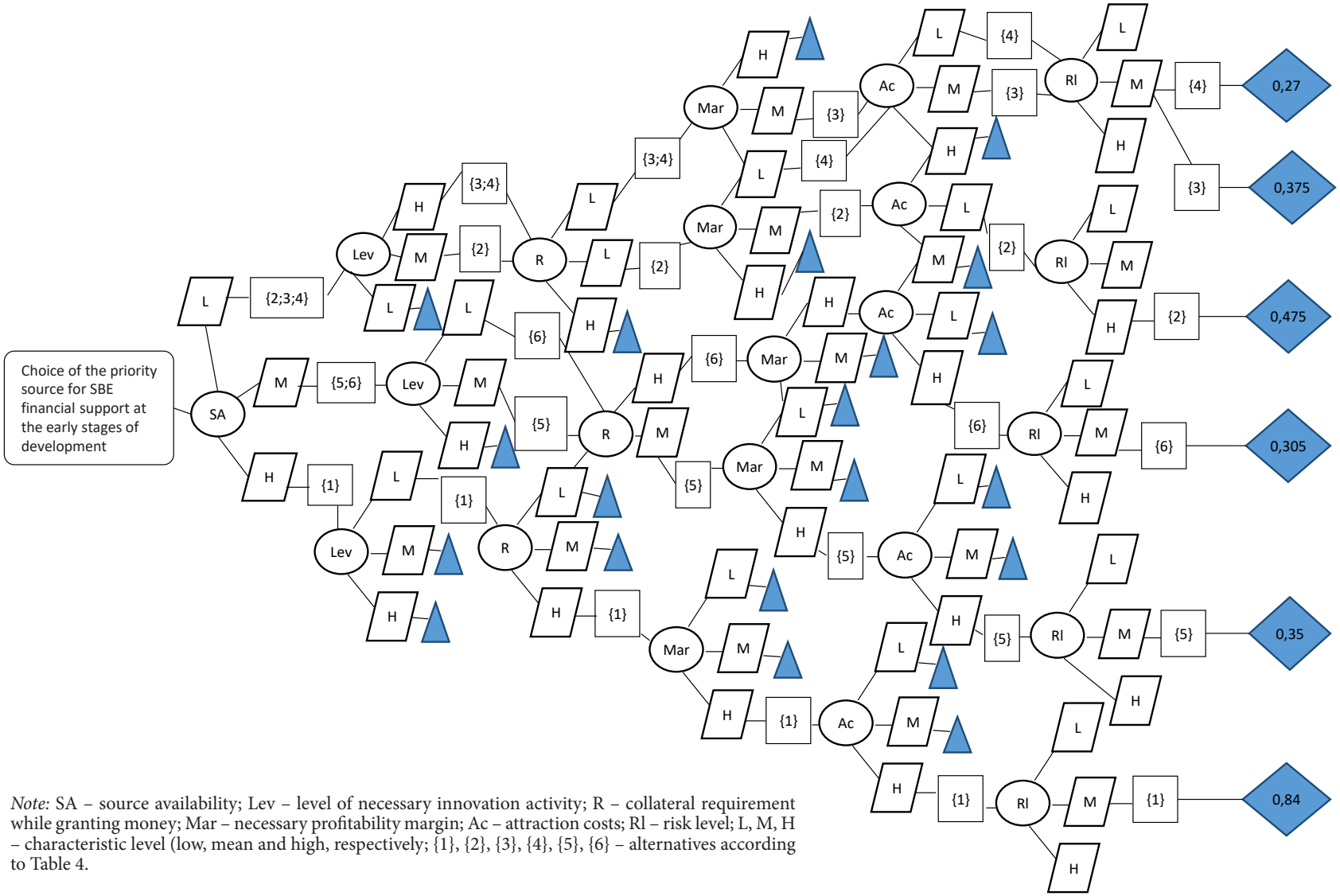
$$Emj \to max, \quad (2)$$

where R is a mathematical evaluation of the attribute level for each alternative (in our case, high – 0, average – 0.5, and low – 1 for attributes (2), (3), (4), (5), (6) (see Table 1); high – 1, mean – 0.5, low – 0 for attribute (1); p is the probability of reaching the results of criterion j (in our case, while determining probabilities, the survey results of SBE of EU countries (European Commission, 2015) and Ukraine (Institute of Business Freedom, 2016), were used); Emj is the result symbol for alternative expectations.

Characteristics and evaluation of each alternative are given in Table 4.

While traversing the tree from left to right, in each inner vertex we check the value of the corresponding attribute and based on the answer we get, we select the desired arc. Such a process continues until the leaf is reached and the class is defined, to which the source of financial support belongs.

After compiling the decision tree (Figure 8), the reverse analysis begins to determine the consequences of making decisions for each alternative.



Note: SA – source availability; Lev – level of necessary innovation activity; R – collateral requirement while granting money; Mar – necessary profitability margin; Ac – attraction costs; Rl – risk level; L, M, H – characteristic level (low, mean and high, respectively; {1}, {2}, {3}, {4}, {5}, {6} – alternatives according to Table 4.

Figure 8. Decision tree: choice of the priority source to form SBE financial support at the early stages of development

Table 4. Data for decision tree construction

Source: Compiled by authors based on EBAN (2017), GEM (2016), European Commission (2015), Institute of Business Freedom (2016).

Source of financial support	Source availability		Level of innovativenessi required		Requirements for collateral when providing funds		Limit of obligatory profitability		Cost of attracting		Risk level	
	Level estimate	Probability of achieving the criterion results	Level estimate	Probability of achieving the criterion results	Level estimate	Probability of achieving the criterion results	Level estimate	Probability of achieving the criterion results	Level estimate	Probability of achieving the criterion results	Level estimate	Probability of achieving the criterion results
Own capital, means of relatives and friends {1}	High	0,6	Low	0,01	Low	0,02	Low	0,02	Low	0,18	Low	0,01
Public finance, state non-budgetary fund means {2}	Low	0,02	Average	0,25	Average	0,4	Average	0,2	Low	0,05	High	0,3
Business angels funds {3}	Low	0,05	High	0,09	Low	0,02	Average	0,15	Average	0,05	Average	0,15
Crowdfunding (capital) {4}	Low	0,01	High	0,4	Low	0,02	Low	0,15	Low	0,05	Average	0,1
Venture capital {5}	Average	0,1	Average	0,2	Average	0,15	High	0,18	Average	0,1	Average	0,15
Bank loans {6}	Average	0,22	Low	0,05	High	0,39	High	0,3	High	0,57	Average	0,29

While going by "tree" it is necessary to put mathematical expectations according to formula 1:

$$E(1) = 1 \cdot 0,6 + 1 \cdot 0,01 + 1 \cdot 0,02 + \\ +1 \cdot 0,02 + 1 \cdot 0,18 + 1 \cdot 0,01 = 0,84;$$

$$E(2) = 0 \cdot 0,02 + 0,5 \cdot 0,25 + 0,5 \cdot 0,4 + \\ +0,5 \cdot 0,2 + 1 \cdot 0,05 + 0 \cdot 0,3 = 0,475;$$

$$E(3) = 0 \cdot 0,05 + 0 \cdot 0,09 + 1 \cdot 0,2 + 0,5 \cdot 0,15 + \\ +0,5 \cdot 0,05 + 0,5 \cdot 0,15 = 0,375;$$

$$E(4) = 0 \cdot 0,01 + 0 \cdot 0,4 + 1 \cdot 0,02 + \\ +1 \cdot 0,15 + 1 \cdot 0,05 + 0,5 \cdot 0,1 = 0,27;$$

$$E(5) = 0,5 \cdot 0,1 + 0,5 \cdot 0,2 + 0,5 \cdot 0,15 + \\ +0 \cdot 0,18 + 0,5 \cdot 0,1 + 0,5 \cdot 0,15 = 0,35;$$

$$E(6) = 0,5 \cdot 0,22 + 1 \cdot 0,05 + 0 \cdot 0,39 + \\ +0 \cdot 0,3 + 0 \cdot 0,57 + 0,5 \cdot 0,29 = 0,305.$$

Consequently, using the decision tree resulted in the construction of a tree, which made it possible to determine the optimal alternative for the decision maker. As can be seen from the calculation results, the business angels' funds are the third priority source of SBE financial support at the early stages of development. The benefits of attracting funds from state and local budgets and extrabudgetary funds are due to low awareness of cooperation with these organizations (according to the survey statistics, the local government and government awareness indices are, respectively, 3.24 and 2.23, as compared to the awareness of support programs of other organizations – 2,13 (Institute of Business Freedom, 2016). As Kolodiziev, Tyshchenko and Azizova note, public-private partnerships provide access to alternative sources of private capital and allow for the implementation of important and urgent projects that otherwise would not be possible (Kolodiziev et al., 2017). At the same time, the possibility of attracting financial resources from informal investors is lower and depends to a large extent on the level of company development, its activities innovativeness (Buzadzhy, 2011; Ibrahim, 2010; Ulianytska & Yaroshenko, 2009). In addition, Silver, Berggren and Fili argue that many entrepreneurs deliberately refuse to attract business angels, believing that the probability of losing control of management surpasses any potential growth gains (Silver et al., 2016).

Given the increasing dependence on public sector funding, more attention should be paid to initiatives to attract informal investors. The main directions of improvement in this area are as follows:

- reforms of the small business legal regulation, including reduction of administrative barriers;
- supporting access to foreign markets and encouraging greater inflow of foreign direct investment into export-oriented sectors;
- raising awareness of the terms and opportunities for cooperation with various SBE support organizations through seminars, trainings, consulting services, support programs and promotion of entrepreneurship development;
- strengthening supervision and regulation of financial intermediaries;
- revaluating institutional and market infrastructure, creating business angel networks and syndicates.

Besides the importance of informal venture financing development, Dykha et al. draw attention to the need for the development of venture capital and innovation infrastructure, the important elements of which are technology parks, technology transfer centers, business incubators; creation of coaching centers on venture capitalization; regulation of the system of intellectual property rights protection, etc., which is of paramount importance for the development of venture business in the general system of investment and innovation activity expansion (Dykha et al., 2017).

An important element for newly created small businesses should be that at the early stages of the business life cycle, alternative resources such as business angels, venture funds, and various government support programs are more affordable and cost-effective than banking loans (Silver et al., 2016; Kolodiziev et al., 2017; Ibrahim, 2010). The positive experience of business angel networks functioning and their impact on SBE development in EU countries shows that it is advisable to create a valid network of business angels in Ukraine to stimulate SBE development and increase their financial support.

CONCLUSION

The study of business angels position in the financial support for small business has shown that they play a significant role in financing the start-up stage of business in the EU, and along with traditional resources they have a number of advantages (ease of receipt, attraction cost, additional consulting services, etc.). However, Ukrainian practice of informal investment has shown poor development of angelic investments in Ukraine and the necessity of their stimulation through legal legislation terms, competition policy regulation, entrepreneurial culture promotion, as well as through development of well-functioning financial markets.

In order to determine the priority of business angel funds among other sources of financial support of early stages of business development, a prototype of the forecasting system of an alternative source for attribute-based SBE financial support is developed. Based on the decision tree technique, it has been determined that the business angels' funds are the third source of financial security as a priority and give way to sources such as own capital, funds from relatives, friends and budget funds, state budget funds due to the lack of angelic financing in Ukraine. Practical implementation of the proposed measures to increase the informal investment attractiveness should be further research area.

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