INFLUENCING FACTORS OF THE INFORMAL INVESTMENT IN CENTRAL EUROPE

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Abstract. This paper examines the influencing factors of becoming informal investors in two groups of Central European countries: the innovation-driven (Estonia, Latvia, Slovenia and Slovakia) and efficiency-driven economies (Croatia, Hungary, Lithuania, Poland and Romania), based on the GEM (Global Entrepreneurship Monitor) database from 2014. According to the results, in the studied innovation-driven economies of Central Europe the probability of becoming an informal investor is higher for those, who know other entrepreneurs, who are confident in their own entrepreneurial skills, who are in the higher percentile of the household income, who are older and male. The results also suggest that in the studied efficiency-driven economies of Central Europe the probability of becoming an informal investor is higher for those who are confident in the own entrepreneurial skills, who know other entrepreneurs, who are in the higher percentile of the household income, who are older and male. The probability is decreased, if somebody is employed full-time. The study emphasises similarities instead of differences regarding the analysed aspect between the two groups of countries.

Keywords: Entrepreneurship; Global Entrepreneurship Monitor; Informal investment; Start-ups.

JEL Classification: L26, M13

INTRODUCTION

The importance of informal investment in entrepreneurship is largely debated in literature (Wong and Ho, 2007), and it is also a topic researched by the Global Entrepreneurship Monitor (GEM), which is the largest research initiative that analyses the propensity of a country’s adult population toward participation in entrepreneurial activities (Singer et al., 2014). The main aim of this paper is to emphasise the main influencing factors of becoming an informal investor in Central Europe. The study uses the GEM Adult Population Survey database for the year 2014. Romania participated in the Global Entrepreneurship Monitor between 2007 and 2015, being represented by the Babeș-Bolyai University, Faculty of Economics and Business Administration (Györfy, 2014). Since 2008, the GEM followed the World Economic Forum’s typology economies (Singer et al. 2015), dividing the participating countries into three groups on the basis of their development level: factor-driven, efficiency-driven and innovation-driven economies. The aim was to analyse if there were any differences between the two groups of countries of Central
Europe with a different level of development (innovation-driven, in 2014 GEM participating countries: Estonia, Latvia, Slovenia and Slovakia and efficiency-driven, in 2014 GEM participating countries: Croatia, Hungary, Lithuania, Poland and Romania) regarding the influencing factors of the probability of becoming an informal investor. The first section of the article contains the literature review regarding informal investment, after that the methodology is presented, followed by the presentation of the results and discussion, and, finally, the conclusions are formulated.

1. LITERATURE REVIEW

Landström (1993) investigated the main determinants of informal investments in Sweden, and concluded that males with experience in entrepreneurship were more probably becoming informal investors. Afterwards, Månsson and Landström (2007) compared the situation of 2004 in Sweden to those above in order to identify the most important changes in the informal venture capital market. Their result corresponded to the first one in terms of gender and experience, and they also identified a higher probability for those who obtained higher education, had start-up and managerial experience.

Research results by Freear et al. (1995) confirmed the important role of private investors in the enterprises sector of the USA, while Sørheim’s (2005) analysis demonstrated the key role of experienced business angels in entrepreneurship progression as facilitators for further finance.

Lumme et al. (1996) analysed the Finnish business angels and showed that successful investors had high managerial experience. Wright and Robbie (1998) gave a literature synthesis on the venture capital topic. Feeney et al. (1999) investigated the private investors’ decision criteria based on survey research. This topic was also discussed by Riding et al. (2007).

Focusing on the venture capital market, the complementarities among the business angels and venture capital funds were confirmed by Harrison and Mason (2000) in a study based on a survey performed in the UK. Sørheim and Landström (2001) identified four types of informal investors based on their competence and investment activity. In this categorization, the business angels were characterised by a high level of competence and high activity level, having entrepreneurial experience. Lahti (2011) developed four-type categorization for the Finnish business angels, among which the “conventional angel investments” were characterised by high involvement and low comprehensiveness of due diligence.

The public policy implications regarding the informal venture capital were discussed by Mason (2009). The importance of business angels relating their value-added role was studied in the comprehensive literature review by Politis (2008). Abdulsaleh and Worthington (2013) gave a literature review for the SME financing by business angels.

The informal investor profile in Australia, its behaviour analysis and selection criteria were investigated by Hindle and Wenban (1999). A survey-based analysis of the Norwegian informal investors was performed by Reitan and Sorheim (2000), and their results suggested that males, at the age between 35 and 55 years, with high
education level and work, as well as management experience were typically Norwegian informal investors. A survey-based analysis focusing on the informal investors from Singapore by Hindle and Lee (2002) concluded that the business angels were mainly males, working as managers and having previous investment experiences. The investors’ decisions and their psychology were analysed by Keller and Pastusiak (2016) in the case of the Polish stock market.

Paul et al. (2003) investigated the informal investment market of Scotland based on a survey analysis and in their results the investment decision was influenced by work experience and business skills. Wong et al. (2005) performed an analysis focusing on the key determinants of becoming informal investors, using a GEM (Global Entrepreneurship Monitor) database for 29 countries from 2001. Wong and Ho (2007) analysed the main factors for becoming an informal investor in the case of Singapore, using the GEM database. Riding (2008) used a survey database for several years to demonstrate in the case of the Canadian informal investment market that the share of informal investments was higher compared to the formal (institutional) one. Moreover, he emphasised the success of experienced informal investors in comparison with the other categories.

The role of investors and the estimation of national informal venture capital market were investigated by Avdeitchikova (2008) in the case of Sweden, using a survey-based analysis. This analysis confirmed the presence of four types of investors, among which the classic business angel role was characterised by a high level of financial and non-financial resource allocation.

The process of informational investment of early stage businesses from Canada was analysed by Haines et al. (2003) who concluded that the investors had high education, remarkable experience as investors and had full-time job. Paul et al. (2007) presented the investment process and discussed the differences among the informal and formal venture capital markets. Sohl (2007) collected in a comprehensive synthesis the literature of informal venture capital market and formulated some important policy implications. Carpentier and Suret (2015) studied the business angels’ decision process through an investment group activity from Canada, using a longitudinal approach. Their results suggested that the inexperienced entrepreneurs were more probably rejected and those with management and start-up experience were supported.

Erikson and Sørheim (2005) investigated informal investors who were specially focused on technology investments, and concluded that this group differed significantly from the other types of investors, mainly in their firm selection, investment process, involvement, and exit preferences.

Politis and Landström (2002) analysed the career perspectives of informal investors and demonstrated the importance of the entrepreneurial learning and experience in this process.

Maula et al. (2005) studied the main determinant factors of micro-angel investments based on the Finnish GEM survey for 2000–2002. Their hypothesis was formulated based on literature and contained a set of indicators, which proved to have a significant effect on the informal investment: business skills, business owner, knowing entrepreneurs, level of education, income, employment status,
gender and age. However, they differentiated family investors from distant investors.

Kelly (2007) gave a synthesis of literature regarding the informal investors’ attitudes, behaviours and characteristics, which were in line with the research findings presented above, among them the following was taken on list: the business angels typically are middle-aged males, with entrepreneurial experiences, and are interested in those investments, where they can apply their knowledge, skills and experience.

Aernoudt and Erikson (2002) discussed the European dimension and contribution of business angels, and their policy implications. There are also important regional differences in informal investments, as Jones-Evans and Thompson (2009) showed in the case of the UK, using the GEM database. Harrison et al. (2010) analysed the spatial distribution of informal investments in the UK and the factors influencing the distance between the investor and the place of investment. The global investors’ profile was studied by Moen et al. (2008) and they compared it to the local investors’ group. Brettel (2002) analysed the German business angels’ demographical profile and they concluded that they were highly experienced and involved.

The intentions to discuss the angel investors are determined by the conflicts between them and the entrepreneurs, as Collewaert (2012) proved it using the GEM database.

Ding et al. (2015) studied the main factors influencing the business angel decision using the GEM database from 25 countries. They analysed among others the cultural differences, social-trust level, individual entrepreneurial skills, and entrepreneurial opportunities as determinant factors influencing the investments across the countries. The informational investments contribute to the development of entrepreneurship and in this way it contributes to the development of national economies. Why the informational investment is important in the Central European economies? Although all countries located in this part of Europe come from the same post-socialist roots, and all have their economies in transition, there are significant differences among them. The GEM (Global Entrepreneurship Monitor) methodology separated them into two groups: the innovation-driven economies, namely Estonia, Latvia, Slovenia and Slovakia, and efficiency-driven economies, Croatia, Hungary, Lithuania, Poland and Romania. The GEM database from Romania was used by Dézsi-Benyovszki and Szabó (2017) analysing the entrepreneurial perception.

The following hypotheses were formulated:

H1. Those individuals more likely will become informal investors, who have entrepreneurial experience owing to their self-confidence. This fact was proven by Wong et al. (2005) based on the GEM database of 29 countries, from 2001. Other studies which showed a significant positive effect: Landström (1993), Lumme et al. (1996), Reitan and Sorheim (2000), Hindle and Lee (2002), Paul et al. (2003), Sorheim’s (2005), Månsson and Landström (2007), Wong et al. (2007).

H2. Individuals with higher skills in new business starting will become informal investors with higher probability. The significant effect of the business skills and experience on becoming informal investor was confirmed by Landström (1993),
Paul et al. (2003), Wong et al. (2005), Maula et al. (2005), Ding et al. (2015) and Wong et al. (2007). Politis and Landström (2002) demonstrated the importance of entrepreneurial learning and experience in the informal investor’s career.

H3. Individuals with entrepreneurs – acquaintances become informal investors with higher probability. This hypothesis was confirmed by Maula et al. (2005) in the case of Finland and by Wong et al. (2007) using the GEM based survey from Singapore.

H4. Individuals with a higher education level become informal investors with higher probability. The results of Sorheim (2000), Haines et al. (2003), Maula et al. (2005), who studied the early stage business investors demonstrated this fact.

H5. Individuals who are employees become informal investors with higher probability. It was proven by Paul et al. (2003), Haines et al. (2003), Maula et al. (2005), Ding et al. (2015) in the case of early stage business investors from Canada.

H6. Individuals who have earned higher income become informal investors with higher probability. GEM database-based results by Wong et al. (2005) suggest the significance of this factor, and Maula et al. (2005) and Ding et al. (2015) reached the same result.

H7. Considering the gender of individuals, the males become informal investors with higher probability. This fact was proven by Landström (1993), Reitan and Sorheim (2000), Hindle and Lee (2002), Maula et al. (2005), Månsson and Landström (2007) and by Romani et al. (2012), who studied this topic in the case of Chile, using the GEM database for 2007–2008. They identified both man and woman investors, and their results indicated that the difference in the investors’ gender was in relation with other socio-demographic factors. The gender difference was confirmed by Maula et al. (2005), in the case of Finland, where the negative relationship of females with the non-familial micro-angel investments was confirmed.

H8. The older individuals become informal investors with higher probability than the younger ones. The middle age hypothesis was confirmed by Reitan and Sorheim (2000) and Maula et al. (2005), as well as the age factor was proven by Wong et al. (2005).

H9. There are significant differences regarding the role of informal investors between the innovation-driven economies and efficiency-driven economies, although both groups are in the same Central European area, with similar transition to the market economy. As Aernoudt and Erikson (2002) suggested, the business angels had a significant contribution to the European economy, and needed adequate policy implications.

2. METHODOLOGY AND DATA

The dataset was set up from the GEM database from 2014. The analysed countries were chosen for the analysis on the basis of the following: (1) the country had to be a participating country in 2014 in the GEM research, and (2) it had to be a former socialist country, joining the EU in the 2000s. The countries were divided into two groups based on their development level. From the innovation-driven economies of Central Europe, (i.e., Estonia, Latvia, Slovenia and Slovakia) 6361
individuals were interviewed. From the efficiency-driven economies (i.e., Croatia, Hungary, Lithuania, Poland and Romania) 10005 individuals were interviewed.

Table 1. Dependent and Explanatory Variables in the Models

| Notation | Name                              | Description                                                                                                                                                                                                 | Values |
|----------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|          | **DEPENDENT VARIABLES**           |                                                                                                                                             |        |
| BUSANGVL | Informal investor in the last 3 years | Have you, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds?                                               | 0 = No | 1 = Yes |
|          | **EXPLANATORY VARIABLES**         |                                                                                                                                             |        |
| ENTREXP  | Entrepreneurial experience        | Are you involved in early-stage entrepreneurial activity (less than 42 months) OR are you owner-manager of an established business (more than 42 months)?                                                      | 0 = No | 1 = Yes |
| SUSKILL  | Trust in own entrepreneurial skills | Do you have the knowledge, skills and experience required to start a new business?                                                                                                                       | 0 = No | 1 = Yes |
| KNOWENT  | Knowing other entrepreneurs       | Do you know someone personally who started a business in the past 2 years?                                                                                                                                | 0 = No | 1 = Yes |
| GEMEDUC  | The highest educational degree     | What is your highest educational degree?                                                                                                                                                                  | 0 = none | 1 = some secondary | 2 = secondary degree | 3 = post-secondary | 4 = grad exp |
| GEMWORK  | Work status                        | What is your work status?                                                                                                                                                                                 | 1 = working full time or part time | 2 = not working | 3 = retired or student |
| GEMHHINC | Household income                  | What is your household income?                                                                                                                                                                           | 1 = lowest 33 % tile | 2 = middle 33 % tile | 3 = upper 33 % tile |
| GENDER   | Gender                            | What is your gender?                                                                                                                                                                                      | 1 = male | 2 = female |
| AGE      | Age                               | What is your age?                                                                                                                                                                                        | 1 = 18–24 years | 2 = 25–34 years | 3 = 35–44 years | 4 = 45–54 years | 5 = 55–64 years |

Source: GEM, Adult Population Survey.
The BUSANGVL named GEM indicator describes the presence of investment activity among individuals included in the survey. For BUSANGVL variable, the question in the survey is formulated as follows: ‘Informal investor in the last 3 years with the provided value’ with responses: ‘Yes’ = 1, ‘No’ = 0. In the next calculations, the ‘BUSANGVL’ is a dependent indicator described by the following set of explanatory indicators.

3. RESULTS AND DISCUSSION

The main aim of the paper was to analyse whether there were any differences between the innovation-driven and efficiency-driven economies of Central Europe regarding the influencing factors of becoming an informal investor. The group formed by the innovation-driven economies of Central Europe (namely, Estonia, Latvia, Slovenia, Slovakia) was analysed at first. The Spearman’s rank correlation coefficients between informal investment and the indicators included in the analysis are significant in all cases, except for the indicator of age.

Table 2. The Spearman’s Rank Correlation of the Indicators Included in the Analysis of the Innovation-Driven Economies of Central Europe

|       | BUSANGVL | ENTREXP  | SUSKILL | KNOWENT | GEMEDUC | GEMWORK | GEMHHINC | GENDER | AGE   |
|-------|----------|----------|---------|---------|---------|---------|----------|--------|-------|
| BUSANGVL | 1.000 | 0.063** | 0.104** | 0.134** | 0.046** | −0.026* | 0.093** | −0.072** | 0.006 |
| ENTREXP | 0.063** | 1.000 | 0.316** | 0.192** | 0.116** | −0.156** | 0.139** | −0.132** | −0.035** |
| SUSKILL | 0.104** | 0.316** | 1.000 | 0.241** | 0.134** | −0.120** | 0.155** | −0.191** | −0.046** |
| KNOWENT | 0.134** | 0.192** | 0.241** | 1.000 | 0.128** | −0.111** | 0.174** | −0.078** | −0.173** |
| GEMEDUC | 0.046** | 0.116** | 0.134** | 0.128** | 1.000 | −0.187** | 0.308** | 0.059** | −0.055** |
| GEMWORK | −0.026* | −0.156** | −0.120** | −0.111** | −0.187** | 1.000 | −0.334** | 0.103** | 0.188** |
| GEMHHINC | 0.093** | 0.139** | 0.155** | 0.174** | 0.308** | −0.334** | 1.000 | −0.138** | −0.219** |
| GENDER | −0.072** | −0.132** | −0.191** | −0.078** | 0.059** | 0.103** | −0.138** | 1.000 | 0.048** |
| AGE   | 0.006 | −0.035** | −0.046** | −0.173** | −0.055** | 0.188** | −0.219** | 0.048** | 1.000 |

** Correlation is significant at the 0.05 level (2-tailed);
* Correlation is significant at the 0.1 level (2-tailed)
Source: The authors’ calculation based on the GEM, Adult Population Survey.

The estimated logistic regression model for the innovation-driven economies of Central Europe has the informal investment as a dependent variable, while the explanatory variables are the experience and the skills in entrepreneurship, knowing entrepreneurs, the level of education, the working status, the level of income, the gender and the age.
Table 3. The Logistic Regression Estimation of Informal Investment in the Innovation-Driven Economies of Central Europe

| Iteration 0: log likelihood = -1148.2273 | Iteration 1: log likelihood = -1067.7021 | Iteration 2: log likelihood = -1050.3192 | Iteration 3: log likelihood = -1050.264 | Iteration 4: log likelihood = -1050.264 |
|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Number of obs. = 6361                   | LR chi2(8) = 195.93                     | Prob > chi2 = 0.0000                    |
| Log likelihood = -1050.264             | Pseudo R2 = 0.0853                      |
| BUSANGVL                               | Coef.                                   | Std. Err.                               | z           | P > |z|   | [95 % Conf. Interval] |
| ENTREXP                                 | 0.0834764                               | 0.1564913                               | 0.53         | 0.594 |   | -0.223241 | 0.3901937 |
| SUSKILL                                 | 0.5535343                               | 0.1303133                               | 4.25         | 0.000 |   | 0.2981249 | 0.8089438 |
| KNOWENT                                 | 0.902954                                | 0.1225326                               | 7.37         | 0.000 |   | 0.6627945 | 1.143113 |
| GEMEDUC                                 | 0.0002263                               | 0.0001385                               | 1.63         | 0.102 |   | -0.000045 | 0.0004977 |
| GEMWORK                                 | -0.0017279                              | 0.0079529                               | -0.22        | 0.828 |   | -0.0173153 | 0.0138594 |
| GEMHHINC                                | 0.0000106                               | 1.98e-06                                | 5.39         | 0.000 |   | 6.77e-06 | 0.0000145 |
| GENDER                                  | -0.5318486                              | 0.1337529                               | -3.98        | 0.000 |   | -0.7939994 | -0.2696978 |
| AGE                                     | 0.1601228                               | 0.047669                                | 3.36         | 0.001 |   | 0.0666933 | 0.2535522 |
| _cons                                   | -4.244915                               | 0.3588217                               | -11.83       | 0.000 |   | -4.948192 | -3.541637 |

Source: The authors’ calculation based on the GEM, Adult Population Survey.

The estimation results of the logistic regression model suggest that variables SUSKILL, KNOWENT, GEMHHINC, AGE have a positive significant influence on informal investment and the variable GENDER has a negative effect. The results suggest that in the innovation-driven economies of Central Europe the probability of becoming an informal investor is higher for those who know other entrepreneurs, who are confident in their own entrepreneurial skills, who are in the higher percentile of the household income, who are older and male.

Secondly, the group of efficiency-driven economies of Central Europe (Croatia, Hungary, Lithuania, Poland, and Romania) was analysed regarding the influential factors of the informal investment. The Spearman’s rank correlation coefficients between informal investment and the indicators included in the analysis were significant in all cases, except for the variable AGE.

The estimated logistic regression model of the efficiency-driven economies of Central Europe has the informal investment as a dependent variable, while the explanatory variables are the experience and the skills in entrepreneurship, knowing entrepreneurs, the level of education, the working status, the level of income, the gender and the age.
Table 4. The Spearman’s Rank Correlation of the Indicators Included in the Analysis of the Efficiency-Driven Economies of Central Europe

|       | BUSANGLV | ENTREX | SUSKILL | KNOENT | GEMEDUC | GEMWOK | GEMHINC | GENDER | AGE  |
|-------|----------|--------|---------|--------|---------|--------|---------|--------|------|
| BUSANGLV | 1.000    | 0.086* | 0.085*  | 0.132** | 0.053*  | −0.031** | 0.078** | −0.065** | −0.008 |
| ENTREX   | 0.086**  | 1.000  | 0.333*   | 0.231** | 0.122*  | −0.189** | 0.162** | −0.168** | −0.020 |
| SUSKILL  | 0.085**  | 0.333* | 1.000    | 0.234** | 0.133*  | −0.180** | 0.170** | −0.203*  | 0.025* |
| KNOT     | 0.132**  | 0.231* | 0.234*   | 1.000  | 0.160*  | −0.136** | 0.160** | −0.081*  | −0.153* |
| GEMEDUC  | 0.053**  | 0.122* | 0.133*   | 0.160** | 1.000   | −0.224** | 0.333** | 0.053**  | −0.039* |
| GEMWOK   | −0.031** | −0.189** | −0.180** | −0.136** | −0.224** | 1.000   | −0.267** | 0.144** | 0.145** |
| GEMHINC  | 0.078**  | 0.162* | 0.170*   | 0.160** | 0.333*  | −0.267** | 1.000   | −0.095** | −0.110* |
| GENDER   | −0.065** | −0.168** | −0.203** | −0.081** | 0.053*  | 0.144** | −0.095** | 1.000   | 0.053** |
| AGE      | −0.008   | −0.020 | 0.025*   | −0.153** | −0.039** | 0.145** | −0.110** | 0.053** | 1.000 |

** Correlation is significant at the 0.05 level (2-tailed);
* Correlation is significant at the 0.1 level (2-tailed)

Source: The authors’ calculation based on the GEM, Adult Population Survey.

The estimation results of the logistic regression model suggest that the variables SUSKILL, KNOENT, GEMHINC, AGE have a positive significant influence on informal investment and the variables GEMWOK, and GENDER exert a negative effect.

The results suggest that in the efficiency-driven economies of Central Europe the probability of becoming an informal investor is higher for those who are confident in their own entrepreneurial skills, who know other entrepreneurs, who are in the higher percentile of the household income, who are older and male. The probability is decreased if somebody is employed full-time.

The analysed hypotheses indicate that Central Europe differs in a series of aspects from the developed innovation-driven countries analysed in literature, and, that there are only minor differences between the innovation-driven and efficiency-driven economies of the region regarding the significantly influencing factors of becoming an informal investor.

Based on the research results, the hypotheses indicate the following:

(H1): It is more likely that those individuals, who have entrepreneurial experience, owing to their self-confidence will become informal investors. The results are partially in accordance with findings by Wong et al. (2005), Landström (1993), Lumme et al. (1996), Reitan and Sørheim (2000), Hindle and Lee (2002), Paul et al. (2003), Sørheim (2005), Wong et al. (2007) and Månsson and Landström.
(2007), because self-confidence in one’s own entrepreneurial skills is significant, but the entrepreneurial experience is not significant in both of the two models.

### Table 5. The Logistic Regression Estimation of Informal Investment in the Efficiency-Driven Economies of Central Europe

| Iteration 0: log likelihood = −1200.7348 |
| Iteration 1: log likelihood = −1125.9337 |
| Iteration 2: log likelihood = −1105.0356 |
| Iteration 3: log likelihood = −1104.9821 |
| Iteration 4: log likelihood = −1104.9821 |

| Iteration 4: log likelihood = −1104.9821 |

| Logistic regression | Number of obs. = 8009 |
|---------------------|-----------------------|
| LR chi2(8) = 191.51 |
| Prob > chi2 = 0.0000 |

| Log likelihood = −1104.9821 | Pseudo R2 = 0.0797 |

| BUSANGVL | Coef. | Std. Err. | z | P>|z| | [95% Conf. Interval] |
|----------|-------|-----------|---|------|-----------------|
| ENTREXP  | 0.1952545 | 0.1479212 | 1.32 | 0.187 | −0.0946657 | 0.4851748 |
| SUSKILL  | 0.3824336 | 0.1301068 | 2.94 | 0.003 | 0.127429 | 0.6374381 |
| KNOWENT  | 1.200811 | 0.1355501 | 8.86 | 0.000 | 0.9351374 | 1.466484 |
| GEMEDUC  | 2.39e−06 | 0.000146 | 0.02 | 0.987 | −0.0002838 | 0.0002886 |
| GEMWORK  | −0.0143606 | 0.0080773 | −1.78 | 0.075 | −0.0301919 | 0.0014707 |
| GEMHHINC | 7.37e−06 | 1.98e−06 | 3.72 | 0.000 | 3.48e−06 | 1.0000113 |
| GENDER   | −0.4124844 | 0.1313939 | −3.14 | 0.002 | −0.6700117 | −0.1549572 |
| AGE      | 0.0649275 | 0.0493359 | 1.32 | 0.188 | −0.0317692 | 0.1616242 |
| _cons    | −3.838613 | 0.3580132 | −10.72 | 0.000 | −4.540306 | −3.13692 |

**Source:** The authors’ calculation based on the GEM, Adult Population Survey.

(H2): Individuals with higher skills in new business starting will become informal investors with higher probability. The significant effect of the business skills and experience on becoming an informal investor was confirmed by the results, in accordance with Landström (1993), Paul et al. (2003), Wong et al. (2005), Maula et al. (2005), Ding et al. (2015) and Wong et al. (2007).

(H3): The hypothesis that individuals with entrepreneurs – acquaintances become informal investors with higher probability was not confirmed in the case of any of the analysed country groups, contrary to findings by Maula et al. (2005) in the case of Finland and results by Wong et al. (2007) in Singapore.

(H4): It was also not confirmed that individuals with a higher education level would become informal investors with higher probability in Central Europe, contrary to research by Sorheim (2000), Haines et al. (2003) and Maula et al. (2005).

(H5): It was analysed that those individuals who were employees would become informal investors with higher probability. In case of both groups of countries, this variable was not proven to be positively influencing the probability of becoming an informal investor. Moreover, in the case of the efficiency-driven
economies the negative influence of being employed full-time was proven. This result is different from the findings by Paul et al. (2003), Haines et al. (2003), Maula et al. (2005) and Ding et al. (2015).

(H6): The models proved that in both country groups of Central Europe individuals who have earned higher income become informal investors with higher probability, in compliance with the findings by Wong et al. (2005) Maula et al. (2005) and Ding et al. (2015).

(H7): Considering the gender of individuals, the hypothesis was confirmed in case of both of the country groups: the males become informal investors with higher probability, in concordance with the findings by Landström (1993), Reitan and Sorheim (2000), Hindle and Lee (2002), Maula et al. (2005), Månsson and Landström (2007) and Romani et al. (2012).

(H8): Older individuals become informal investors with higher probability than younger ones in both groups of countries – the hypothesis was confirmed. The age factor was emphasised by Wong et al. (2005).

(H9): The hypothesis was not confirmed. There are not significant differences regarding the role of informal investors between the innovation-driven economies and efficiency-driven economies of Central Europe. The only difference is that working status has a significant negative influence in case of efficiency-driven economies, and it has no significant influence in case of innovation-driven economies.

4. CONCLUSION

The main aim of the paper was to analyse whether there were any differences between the innovation-driven and efficiency-driven economies of Central Europe with regard to the influencing factors of becoming an informal investor.

The results suggested certain similarities between the two groups of countries regarding the analysed aspect. In the innovation-driven economies of Central Europe, the probability of becoming an informal investor is higher for those individuals who know other entrepreneurs, who are confident in their own entrepreneurial skills, who are in the higher percentile of the household income, who are older and male. In the efficiency-driven economies of Central Europe, the probability of becoming an informal investor is higher for those who are confident in their own entrepreneurial skills, who know other entrepreneurs, who are in the higher percentile of the household income, who are older and male. The probability is decreased if somebody is employed full-time. Entrepreneurial experience is not significant in any of these two groups. A possible reason may be that the entrepreneurial sector is relatively new in these post-socialist economies, and this sector is not yet powerful enough for emphasising a certain leading role in informal investment in comparison with other (e.g., employed) categories. It can be considered that informal investment is still mainly based in these countries on 3F (friends, family and fools) rather than on an entrepreneurial informal investment activity. Education is another surprising factor; it is also not significant in any of the models. It can be considered that population with a lower education degree also participates in informal investment.
The main difference between the two groups of countries is that the work status is significant only in efficiency-driven countries. The results suggested that policy makers could take similar measures for the whole region in order to increase an informal investment activity.

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