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THE ROLE OF ECONOMIC ACADEMIC EDUCATION ON ENTREPRENEURIAL BEHAVIOUR

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Abstract
The study aims to identify the role played by personality characteristics on entrepreneurial intentions and resultant behaviours, in the case of university students with economic education. The analysis was performed on a group of undergraduate and master degree students of the Faculty of Economics and Business Administration from the West University of Timişoara. For the investigated population, empirical results indicate that: (i) personality characteristics are antecedents of behavioural characteristics depending on situational constraints that allow their expression; (ii) behavioural characteristics emerge as significant predictors of entrepreneurial intention; (iii) entrepreneurial intention is a primary forecaster of real entrepreneurial activity; (iv) the increase of educational level and study programs’ specificity, to which the investigated population belongs, guarantee for entrepreneurial awareness raising and instruction of aspirant entrepreneurs.

Keywords: entrepreneurship and business education, personality characteristics, entrepreneurial intention, entrepreneurial behaviour.

JEL Classification: L26

Introduction
Entrepreneurial intention is defined as the individual’s desire to possess own business (Martin, McNally and Kay, 2013) or to start a business (Krueger, Reilly and Carsrud, 2000). The individual’s past can be seen as a set of stored information, derived from personal events or from reactions occurred due to a variety of external stimuli. The individual’s holistic intuitive or rational analytical thinking transforms the information into attitudes, perceptions and action oriented form of personal effectiveness. The interference of personal specific factors (previous entrepreneurial experiences, personality characteristics and competences) and contextual factors (social, economic and political) appear as antecedents of entrepreneurial intention, structured through cognitive processes (Bird, 1988; Boyd and Vozikis, 1994).

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Understanding the entrepreneurial act involves analysing the mechanisms by which several categories of variable relates: (i) variables characteristic to entrepreneurial creation (opportunities, resource attraction, management, response to the environment); (ii) variables specific to the entrepreneur (demographic, contextual, experiential, psychological), the firm (strategic and organisational elements) and the environment (resources, technological and governmental factors) (Gartner, 1985).

The entrepreneurial creation process commence is generated by the desire of individuals with different entrepreneurial potential (Hernandez, 2001), by the manner in which they perceive as feasible and necessary the creation of new economic activities, respectively by the social support offered for the embraced demarche (Shapero and Sokol, 1982; Ajzen, 1991). The transition from perception to action involves entrepreneurs, as cognitive individuals who dispose of complementary knowledge, attitudes and skills throughout the entrepreneurial process (Shook, Priem and McGee, 2003).

The decision to exploit the identified and evaluated opportunities involves: analyzing available resources, generally low from financial, temporal and personal perspective (Ravasi and Turati, 2001), respectively to search for resources and reconfigure existing ones with the purpose of creating new economic activities (Newbert, 2005). New economic activities constitute entrepreneurial acts, like determining firms to enter into new markets or existing markets with new products and services (Lumpkin and Dess, 1996), depending on the entrepreneur’s orientation towards growth or innovation (Autio, 2007).

The theme of current research is to identify the effects of psychological and behavioural characteristics upon the entrepreneurial intention and behaviour among young people with business higher education studies. The main research objective is to identify the antecedents of entrepreneurial intention of youth with economic academic studies and their propensity to act in conformity with the manifested entrepreneurial intention.

The paper is divided into four parts, as follows: (i) literature review regarding students’ entrepreneurial intention and behaviour; (ii) conceptual research model development, operationalization through constructs and hypotheses establishment; (iii) research methodology and (iv) statistical analysis results presentation; (v) conclusions drawn from the conducted research, identification of limitations and future research directions.

1. Theoretical background

The reasoned action and planned behaviour model (Ajzen, 1991; 2002) explains the formation of intentions preceding any type of planned human behaviour, being determined mainly by motivational factors. These factors relate to favourable or unfavourable individual attitude toward the target behaviour, supposed subjective norms as result of social pressure, perceived behavioural control depending on resources, opportunities, previewed obstacles and competences. The model remains open to exogenous factor influence, affecting directly the individual’s attitudinal, normative and control beliefs and implicitly the evolution of personal perceptions on target behaviour opportunity and feasibility, respectively indirectly to intention and behaviour (Bagozzi, Baumgartner and Yi, 1992). Exogenous factors refer to individual variables – like age, gender, marital status, education, and to personality traits – like the extent to which a person believes that he/she can control life influencing results and events (locus of control), need for achievement, tolerance of ambiguity and propensity of risk-taking. The model has been used by several
Fostering Entrepreneurship in a Changing Business Environment

researchers as theoretical framework to explore attitudes towards entrepreneurial intentions (Kirby, 2006; Miller et al., 2009; Liñán and Chen, 2009; Schwarz, Wdowiak and Breitenecker, 2009), as relevant tool for entrepreneurial intention modelling, developed through teaching processes and learning contexts (Fayolle, Gally and Lassas-Clerc, 2006). Tested empirically in a variety of situations, the model allowed for behavioural intention anticipation and understanding (Segal, Borgia and Schoenfeld, 2005; Sanchez, 2011) and entrepreneurship related phenomena (Bakotić and Kružić, 2010). Empirical research highlighted the rational action and planned behaviour model utility (Ajzen, 1991, 2002) as predictor of entrepreneurial behaviour (Krueger, Reilly and Carsrud, 2000; Autio et al., 2001; Liñán and Chen, 2009).

Researchers showed keen interest in understanding students’ entrepreneurial intention based on the following presumptions: (i) entrepreneurial personal characteristics (Alvarez and Busenitz, 2001) and skills (Galloway et al., 2005) can be developed through education; (ii) entrepreneurship oriented formal education offered by higher education institutions encourage youth and facilitate the process of new firm establishment (Vij, 2004).

Regarding the educational level, based on the entrepreneurial event (Shapero and Sokol, 1982) and planned behaviour (Ajzen, 1991) models, Nabi and Holden (2008) analyzed the entrepreneurial intentions of students from England, Ireland, Australia and the United States, after graduating an entrepreneurship program. Conclusions highlighted that the program influenced entrepreneurial intentions and assisted students to move towards entrepreneurial activities. Having as theoretical foundation the Ajzen model (1991), Kadir, Salim and Kamarudin (2012) argued that in Malaysia, university education had impact on students’ entrepreneurial attitudes and behaviour, at the same time as these factors influenced their entrepreneurial intentions. Another study conducted by Marques et al. (2012) concluded psychological, demographic and behavioural factors as antecedents of entrepreneurial intentions, while entrepreneurial programs had no impact on these intentions. The research conducted by Niţu-Antoni and Feder (2013) in Romania, focusing on a sample of youth with entrepreneurial academic education, in accordance with the Ajzen model (1991; 2002), found that behavioural variables influence on entrepreneurial intention is much higher than the influence of psychological ones, whilst psychological variables had insignificant direct influence on entrepreneurial intentions of the surveyed students. Regarding the educational level, based on the entrepreneurial event (Shapero and Sokol, 1982) and planned behaviour (Ajzen, 1991) models, Liñán, Rodríguez-Cohard and Rueda-Cantuche (2011) searched for factors affecting entrepreneurial intentions to start a business within the line of Spanish final year students from two economic universities. Research results emphasized that among factors leading to entrepreneurial intention formation, the entrepreneurial higher education is included because its’ focus on the principles of new firm creation, while the decision to create a firm depends not only on the perception regarding achievement desire and possibility, but on the individuals’ entrepreneurial orientation too. Researchers concluded that factors determining the individual’s decision to start a business are not yet clear, changes being necessary in analyzed samples and concerned educational levels.

2. Conceptual model and research hypotheses

The proposed research model (figure no. 1) has been developed to investigate fundamental relationships between constructs. On one hand, it was investigated the causal relationship
between students’ psychological characteristics and entrepreneurial intentions, mediated by behavioural characteristics, and moderated by their university education specificity and level. On the other hand, the causal link between entrepreneurial intention and subsequent behaviour was studied, as the students’ inclination to act on their entrepreneurial intentions.

Research model development was followed by assumption establishment about relationships between the operationalized constructs. Research hypotheses were founded on previous theoretical developments and results of empirical studies. Model operationalization through constructs involved applying specific entrepreneurial intention determinants from the Ajzen model (1991; 2002), identified also in other studies (Robinson et al., 1991; Ho and Koh, 1992).

![Research model regarding the antecedents, mediators and moderators of entrepreneurial intention and behaviour](image)

The psychological characteristics construct has been operationalized via the following personality traits: locus of control (Fishbein and Ajzen, 1975; Ajzen, 1991; 2002); propensity to risk-taking (Fishbein and Ajzen, 1975; Ajzen, 1991; 2002; Stewart and Roth, 2001; Weber, Blais and Betz, 2002); self-confidence (Robinson et al., 1991; Ho and Koh, 1992) and need for achievement (Fishbein and Ajzen, 1975; Ajzen, 1991; 2002). The behavioural characteristics construct has been operationalized with individual motivational factors related to entrepreneurial abilities: favourable or unfavourable personal attitudes (Ajzen, 2002); subjective norms determined by the entrepreneurial idea related social pressure (Fishbein and Ajzen, 1975; Ajzen, 1991; 2002) and perceived control over own behaviours (Fishbein and Ajzen, 1975; Ajzen, 2002).

In the ‘80s, narrative literature reviews argued the lack of consistent relationship between individual’s personality and entrepreneurship (Gartner, 1988). Recently, other researchers (Shane, Locke and Collins, 2003; Rauch and Frese, 2007) suggested that previous conflicting results in the literature on the role of entrepreneurial personality traits might be due to methodological errors and the meta-analysis can lead to proper corrections (Dalton and Dalton, 2005). Additionally, personality traits susceptible to predict entrepreneurial behaviour are those that match with the entrepreneurs work characteristics (Vinchur et al., 1998). Entrepreneurs need to detect and exploit opportunities, to make quick decisions in
uncertain conditions and in resource constrained environments, to work harder than other employees, to possess a large scope of knowledge and skills (Sarasvathy, 2001; Shane, Locke and Collins, 2003). An illustration of suitable features for such responsibilities may include: need for achievement, innovation, proactivity, efficiency, tolerance of ambiguity and stress, need for autonomy, locus of control and risk-taking (Rauch and Frese, 2007).

From empirical perspective, econometric results support the Ajzen model (1991; 2002) predictions. Attitude, perceived behavioural control and subjective norms are significant predictors of entrepreneurial intention, furthermore intentions along perceived behavioural control are significant predictors of subsequent entrepreneurial behaviour (Kautonen, Van Gelderen and Tornikoski, 2013). In an empirical research carried out at on a smaller sample of Romanian youth with economic education gained through university studies (Niţu-Antonie and Feder, 2013), the results showed that behavioural variables from the Ajzen model (1991; 2002) can influence directly and to a greater extent entrepreneurial intention compared to psychological variables regarding the propensity to risk-taking, self-confidence, need for achievement and innovativeness. Some psychological variables, like locus of control and tolerance of ambiguity, have been identified with insignificant influence on entrepreneurial intentions of the surveyed students.

In the context of empirical results already attained for Romanian students and given the theoretical consideration that “personality traits can affect behaviour only when situational constraints allow their expression” (Mischel, 1968 in Rauch and Frese, 2007, p. 44), two hypotheses were formulated:

H1: Psychological characteristics [as locus of control (LC), propensity to risk (PR), self-confidence (SC) and need for achievement (NA)] positively influence behavioural characteristics [like personal attitude (PA), perceived behavioural control (PBC) and subjective norm (SN)].

H2: Behavioural characteristics [like personal attitude (PA), perceived behavioural control (PBC) and subjective norm (SN)] positively influence entrepreneurial intentions (EI).

Socio-psychological studies assume that intent is the best predictor of real behaviour (Bagozzi, Baumgartner and Yi, 1989). From entrepreneurial perspective, other studies have questioned the explanatory power of intentions to predict actual entrepreneurial behaviour (Douglas and Shepherd, 2002). However, several studies still consider entrepreneurial intentions as a defining antecedent of actual entrepreneurial activities (Krueger et al., 2011; Lee et al., 2011). Thus, other two research hypotheses were established:

H3a: Entrepreneurial intentions (EI) positively influence the individual’s inclination to become entrepreneur (ENT).

H3b: Entrepreneurial intentions (EI) negatively influence the individual’s proclivity to become an employee (EMP).

The economic academic education construct has been operationalized as specificity and level, by taking into account business and entrepreneurial education at bachelor and master degree studies. Empirical papers emphasized that entrepreneurial academic education has positive impact on key entrepreneurial attributes (Noel, 2001; Nistoreanu and Gheorghe, 2014) and on students’ entrepreneurial intentions (Souitaris, Zerbinati and Al-Laham, 2007), but it can encourage the employee mentality too (Kourilsky, 1995). Other studies pointed out that generally, academic education does not encourage entrepreneurship (Gibb
and Hannon, 2006; Fayolle and Gailly, 2009). Conscious and alert entrepreneurship education can be considered as “alternative career path for employment” (Slavtchev, Laspita and Patzelt, 2012, p. 3), while business education support students to work as employees in existing firms (Grey, 2002 in Bae et al., 2014). Entrepreneurship education is more closely related to entrepreneurial intentions than business education, because the former is adapted to suit better entrepreneurial skill and knowledge development (Bae et al., 2014). Business education provides students with technical knowledge for business administration and does not emphasize the business creation process (Liñán, 2008 in Bae et al., 2014). In this context, a last research hypothesis has been formulated:

H₄: The greater the individuals’ educational level and specificity, the stronger the positive effect of behavioural characteristics (PA, PBC, SN) on entrepreneurial intentions (EI).

Research hypotheses establishment imposed primary data collection and statistical verification of causal relationships between constructs composing the conceptual model.

3. Research methodology

For the explanatory research, a theory based econometric model was employed and structured via mathematical statements about interactions of causal, moderating and outcome variables (Hair et al., 1998). The model encompass, in a sequential logic, the integrative framework of psychological and planned behaviour theory (Marques et al., 2012) for entrepreneurial intention prediction, in order to forecast ultimately alternative real behaviours:

\[ \text{EMP or ENT} = f \{ \text{EI, (LEV, SPEC), (PA, PBC, SN), (LC, PR, SC, NA)} \} \]

Primary data collection was necessary from potential future entrepreneurs for the assessment of entrepreneurial intentions and behaviours. Quantitative research method was applied in the form of questionnaire based sample survey. Data was gathered between 2008 and 2014, via questionnaires administrated to students of the Faculty of Economics and Business Administration from the West University of Timișoara.

Analogous to the research of Nițu-Antonie and Feder (2013), the measurement model was operationalized via acknowledged constructs, as latent variables with multiple reflective items measured on 5 point Likert scales: Koh’s (1996) scale for psychological characteristics, Liñán and Chen’s (2009) scale for behavioural characteristics and entrepreneurial intention. Career choice preference regarded the attraction of the respondents towards being an employee, respectively towards being an entrepreneur, by considering all the economic, social and personal compensations. The combination of the moderator factors, between educational specificity and level, as single-item dichotomous ordinal scales, determined 4 groups of respondents: undergraduate students (B.A.) with business (cluster 1) and entrepreneurship studies (cluster 2), graduate students (M.A.) with business (cluster 3) and entrepreneurship studies (cluster 4).

Respondents’ participation in the study was voluntary, thus from the 500 questionnaires distributed to students, a total of 406 were returned, but only 398 were properly filled, else list-wise removed. The effective response rate of 79.6% can be considered noteworthy, compared to the response rate of similar studies conducted in Romania (Romero, Petrescu and Balalia, 2011; Nițu-Antonie and Feder, 2013) and worldwide (Liñán and Chen, 2009). Furthermore, in order to obtain an ample image reflecting students’ entrepreneurial
intention and behaviour influencing factors, a great variety of respondents were included in the sample regarding their age, gender, study level and field of major. Concerning the specialisation of respondents, as study specificity sphere, they followed Management (32.66%), Economics and International Business (27.64%), Marketing (15.08%), Tourism (10.30%), Accounting (5.78%), Finance (5.78%), General Economics (1.51%), Economical Informatics (1.26%) domains. Analysing the sample of respondents after their study level, 200 (50.3%) were undergraduate and 198 (49.7%) master students. Furthermore, 144 (36.2%) respondents composed cluster 1, 56 (14.1%) represented cluster 2, 122 (30.7%) have been included in cluster 3, while 76 (19.1%) corresponded to cluster 4.

Measurement and structural model evaluation in IBM SPSS and AMOS 21 involved a stepwise handling of statistical techniques forming a complex statistical algorithm: (i) descriptive statistics (mean, standard deviation, skewness, kurtosis) to check data distribution; (ii) scale reliability tested using $\alpha$ Cronbach, composite reliability (CR) and average variance extracted (AVE); (iii) factor analysis: determined factor loadings with Kaiser criteria (Eigenvalue>1), principal component analysis and oblimin rotation; (iv) validity analysis in convergent and discriminant form; (v) linear regression specific fundamental assumptions’ tests; (vi) hypotheses testing performed via simultaneous multiple regression analysis (Marques et al., 2012) in AMOS and ANOVA (Sánchez, 2011) in SPSS for the categorical moderator factor; (vii) goodness-of-fit indices.

4. Results and discussions

Within the statistical analysis, initially the psychometric properties of the composite scales have been explored, through normality, reliability, factor and validity evaluation, in order to calibrate and validate the measurement model.

Constructs operationalizing the psychological and behavioural characteristics, along with EI and ENT as career choice registered means above the average (3 from the 5 point Likert scale), similarly to LEV and SPEC (above 1.5 on dichotomous scale). The only exception was the EMP career choice, with a lower value (2.59). EI, EMP and ENT had the largest standard deviations (0.635, 0.965, 0.906), the sample being heterogeneous in respect to intentions and career choice. Skewness analysis determined that the majority of constructs were slightly negative, excepting for SC, EMP, LEV, SPEC, in all the cases limited to ±0.81. Kurtosis analysis showed slightly negative values for LC, SC, EMP, LEV, SPEC and slightly positive ones for PR, NA, PA, PBC, SN, EI, ENT, in all the cases below ±0.99 forming mesokurtic distributions. Consequently, neither skewness nor kurtosis was problematic issue for the investigated sample, normality being solid. Scale reliability was assured especially by CR and AVE with values above cutting value of 0.5, as indicated by Hair et al. (1998). Similarly, $\alpha$ Cronbach was over the indicated standard, except for PR and SC. (Table no. 1)

Table no. 1: Descriptive statistics, scale reliability, factor and validity analysis

<table>
<thead>
<tr>
<th></th>
<th>LC</th>
<th>PR</th>
<th>SC</th>
<th>NA</th>
<th>PA</th>
<th>PBC</th>
<th>SN</th>
<th>EI</th>
<th>EMP</th>
<th>ENT</th>
<th>LEV</th>
<th>SPEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.D.</td>
<td>.416</td>
<td>.431</td>
<td>.469</td>
<td>.455</td>
<td>.579</td>
<td>.535</td>
<td>.591</td>
<td>.635</td>
<td>.965</td>
<td>.906</td>
<td>.501</td>
<td>.500</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.138</td>
<td>-.234</td>
<td>.242</td>
<td>-.144</td>
<td>-.580</td>
<td>-.025</td>
<td>-.410</td>
<td>-.518</td>
<td>-.209</td>
<td>-.807</td>
<td>.010</td>
<td>.071</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.066</td>
<td>.921</td>
<td>-.252</td>
<td>.025</td>
<td>.986</td>
<td>.720</td>
<td>.127</td>
<td>.673</td>
<td>-.709</td>
<td>.471</td>
<td>-.21</td>
<td>-.025</td>
</tr>
<tr>
<td>$\alpha$ Cronbach</td>
<td>.512</td>
<td>.447</td>
<td>.537</td>
<td>.313</td>
<td>.687</td>
<td>.660</td>
<td>.518</td>
<td>.771</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CR</td>
<td>.894</td>
<td>.791</td>
<td>.828</td>
<td>.888</td>
<td>.869</td>
<td>.851</td>
<td>.838</td>
<td>.899</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Moreover, convergent validity was assured through significant and above 0.5 factor loadings, while discriminant validity was guaranteed by positive Pearson correlation coefficients significant at 0.01 level. Prior conducting regressions or ANOVA, the basic assumptions of normal distribution of errors, multicollinearity, homoscedasticity and linearity (table no. 2) were determined and assessed, both at the investigated population and cluster level. After the calculation of standardized errors, the low significance level (p > 0.05) of the Kolgomorov-Smirnov (KS) and Shapiro-Wilks (SW) tests ensured equal standard deviations of errors and their normal distribution. The possible occurrence of multicollinearity has been tested by the variance inflation factor (VIF) for the explanatory variables in multiple regressions. Values below 1.93 (VIF < 10) proved that independent variables are not highly correlated with each other and the absence of extreme outliers. The Breusch-Pagan and Koenker tests were used to determine a possible heteroscedasticity in the studied relations (DV: EMP and ENT; IV: EI, PA, PBC, SN, (LC, PR, SC, NA), although the limited significance level (p > 0.05) assured the homoscedaticity assumption of all errors. After testing the linearity of the relations between independent and dependent variables, through the insignificant deviations from linearity (p > 0.05), the assumption of linearity had been assured for all hypotheses.

### Table no. 2: Tests for linear regression specific assumptions

<table>
<thead>
<tr>
<th>Error distribution normality tests</th>
<th>Multi-collinearity</th>
<th>Homoscedasticity</th>
<th>Linearity (Deviation from linearity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation/ Test</td>
<td>K-S</td>
<td>S-W</td>
<td>IVs / VIF</td>
</tr>
<tr>
<td>LC, PR, SC, NA → EI</td>
<td>0.042 (0.049)</td>
<td>0.993</td>
<td>LC</td>
</tr>
<tr>
<td>PA, PBC, SN → EI</td>
<td>0.039 (0.106)</td>
<td>0.994</td>
<td>SC</td>
</tr>
<tr>
<td>EI → EMP</td>
<td>0.079 (0.067)</td>
<td>0.991</td>
<td>PA</td>
</tr>
<tr>
<td>EI → ENT</td>
<td>0.079 (0.202)</td>
<td>0.993</td>
<td>PBC</td>
</tr>
</tbody>
</table>

Data analysis performed via structural equation modelling of simultaneous multiple regressions (table no. 3) indicates noteworthy personal characteristics: (i) the existence of significant positive relationships between PR (IV) and PA (DV), because p=0.00<0.05 and
β has an acceptable value (β=0.184); (ii) the existence of a significant positive relationship between SC (IV) and PA (DV), since p=0.001<0.05 and β has a reasonable value (β=0.15); (iii) the existence of a significant positive relationship between NA (IV) and PA (DV), in the conditions of p=0.00<0.05 and tolerable value of β (β=0.202); (iv) the existence of significant positive relationships between PR (IV) and PBC (DV), because p=0.00<0.05 and β has an acceptable value (β=0.202); (v) the existence of a significant positive relationship between SC (IV) and PBC (DV), since p=0.00<0.05 and β has a reasonable value (β=0.198); (vi) the existence of a significant positive relationship between NA (IV) and PBC (DV), in the conditions of p=0.00<0.05 and tolerable value of β (β=0.153); (vii) the existence of significant positive relationships between PR (IV) and SN (DV), because p=0.00<0.05 and β has an acceptable value (β=0.16). In the same time, behaviour characteristics, like PA, PBC, SN (IVs), significantly (p=0.00) and positively (β=0.532; β=0.487; β=0.124) influence EI (DV). Finally, EI (IV) affects significantly (p=0.00) and positively the individual’s proclivity to proceed as entrepreneur (β=1.129), respectively negatively the desire to become employee (β=-1.005).

### Table no. 3: Regression analysis for the whole sample (H1-H3)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relationship</th>
<th>Regression coefficient (β)</th>
<th>Standard error (S.E.)</th>
<th>Significance level (p)</th>
<th>R squared (R²)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>LC → PA</td>
<td>0.056</td>
<td>0.048</td>
<td>0.240</td>
<td>0.105</td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>PR → PA</td>
<td>0.184</td>
<td>0.040</td>
<td>0.000</td>
<td>0.162</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>SC → PA</td>
<td>0.150</td>
<td>0.047</td>
<td>0.001</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>NA → PA</td>
<td>0.202</td>
<td>0.053</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>LC → PBC</td>
<td>0.001</td>
<td>0.039</td>
<td>0.981</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>PR → PBC</td>
<td>0.202</td>
<td>0.033</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>SC → PBC</td>
<td>0.198</td>
<td>0.039</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>NA → PBC</td>
<td>0.153</td>
<td>0.043</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>LC → SN</td>
<td>0.083</td>
<td>0.056</td>
<td>0.136</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>PR → SN</td>
<td>0.160</td>
<td>0.047</td>
<td>0.000</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>SC → SN</td>
<td>0.071</td>
<td>0.055</td>
<td>0.195</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>NA → SN</td>
<td>0.082</td>
<td>0.062</td>
<td>0.186</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td>H2</td>
<td>PA → EI</td>
<td>0.532</td>
<td>0.039</td>
<td>0.000</td>
<td>0.483</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>PBC → EI</td>
<td>0.487</td>
<td>0.046</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>SN → EI</td>
<td>0.124</td>
<td>0.034</td>
<td>0.000</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>EI → ENT</td>
<td>1.129</td>
<td>0.095</td>
<td>0.000</td>
<td>0.262</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b</td>
<td>EI → EMP</td>
<td>-1.005</td>
<td>0.122</td>
<td>0.000</td>
<td>0.147</td>
<td>Supported</td>
</tr>
</tbody>
</table>

In the case of hypothesis H1, a partial support was established, a few antecedents proved lack of relevance for the proposed relationships: (i) an insignificant relationship between LC (IV) and all the DVs, PA (β=0.056, p=0.24), PBC (β=0.001, p=0.981) and SN (β=0.083, p=0.136); (ii) in the case of SN (DV), nor SC (β=0.071, p=0.195) or NA (β=0.082, p=0.186) were significant. Alternatively, significant and high association degree was detected between IVs and DVs for H2, H3a, H3b valid hypotheses. Thus, 48.3% of the entrepreneurial intention variation owed to the cumulated influence of the above mentioned IVs (PA, PBC, SN) (R²=0.483), respectively 14.7% of the preference to become an employee can be explained as the influence of entrepreneurial intentions and 26.2% of the proclivity to become an entrepreneur is due to the influence of developed entrepreneurial intentions.
For undergraduate (B.A.) and graduate (M.A.) students with business education, behaviour characteristics (IV), like PA, PBC and SN positively and significantly influenced EI (DV). Moreover, higher educational level explained more entrepreneurial intention ($R^2_{BA} = 26.6\%$, $R^2_{MA} = 48.4\%$) variance.

In the case of undergraduate (B.A.) and graduate (M.A.) students with entrepreneurship education, behaviour characteristics (IV), like PA and PBC positively and significantly influenced EI (DV). Furthermore, higher educational level explained less entrepreneurial intention variance ($R^2_{BA} = 66.4\%$, $R^2_{MA} = 53\%$).

Besides the educational level, educational specificity, in the form of business or entrepreneurship study, was as well a significant moderator. Thus, in the case of undergraduate (B.A.) respondents, for students with business education all behaviour characteristics (IV) influenced positively and significantly EI (DV), while for students with entrepreneurial education, just PA and PBC were significant determinants, although explained to a higher degree the EI variance ($R^2_{ed\_bus} = 26.6\%$, $R^2_{ed\_ent} = 66.4\%$).

In the case of graduate (M.A.) respondents with business education all behaviour characteristics (IV) influenced positively and significantly entrepreneurial intention (DV), while for master students with entrepreneurial education just PA and PBC were significant determinants, explaining a high level of EI variance ($R^2_{ed\_bus} = 48.4\%$, $R^2_{ed\_ent} = 53\%$). (table no.4)

<table>
<thead>
<tr>
<th>Educational level and specificity</th>
<th>Relationship</th>
<th>Regression coefficient ($\beta$)</th>
<th>Standard error (S.E.)</th>
<th>Significance level (p)</th>
<th>$R$ squared ($R^2$)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. students with business education</td>
<td>PA → EI</td>
<td>0.398</td>
<td>0.088</td>
<td>0.000</td>
<td>0.266</td>
<td>Supported</td>
</tr>
<tr>
<td>B.A. students with entrepreneurship education</td>
<td>PA → EI</td>
<td>0.656</td>
<td>0.056</td>
<td>0.000</td>
<td>0.664</td>
<td>Supported</td>
</tr>
<tr>
<td>B.A. students with entrepreneurship education</td>
<td>SN → EI</td>
<td>0.209</td>
<td>0.072</td>
<td>0.004</td>
<td>0.266</td>
<td>Supported</td>
</tr>
<tr>
<td>B.A. students with business education</td>
<td>PBC → EI</td>
<td>0.422</td>
<td>0.096</td>
<td>0.000</td>
<td>0.266</td>
<td>Supported</td>
</tr>
<tr>
<td>B.A. students with entrepreneurship education</td>
<td>PBC → EI</td>
<td>0.544</td>
<td>0.066</td>
<td>0.000</td>
<td>0.664</td>
<td>Supported</td>
</tr>
<tr>
<td>B.A. students with business education</td>
<td>SN → EI</td>
<td>0.012</td>
<td>0.050</td>
<td>0.810</td>
<td>0.000</td>
<td>Not supported</td>
</tr>
<tr>
<td>M.A. students with business education</td>
<td>PA → EI</td>
<td>0.663</td>
<td>0.097</td>
<td>0.000</td>
<td>0.484</td>
<td>Supported</td>
</tr>
<tr>
<td>M.A. students with entrepreneurship education</td>
<td>SN → EI</td>
<td>0.156</td>
<td>0.077</td>
<td>0.044</td>
<td>0.530</td>
<td>Supported</td>
</tr>
<tr>
<td>M.A. students with entrepreneurship education</td>
<td>PBC → EI</td>
<td>0.376</td>
<td>0.109</td>
<td>0.000</td>
<td>0.530</td>
<td>Supported</td>
</tr>
<tr>
<td>M.A. students with entrepreneurship education</td>
<td>SN → EI</td>
<td>0.091</td>
<td>0.074</td>
<td>0.216</td>
<td>0.530</td>
<td>Supported</td>
</tr>
</tbody>
</table>

For hypothesis $H_4$ confirmation, regarding the influence of respondents’ (delimited clusters) educational level and specificity on their EI, ANOVA was performed. The test was significant with $F=3.621$ and $p=0.013$, demonstrating the existence of the moderator factor based differences in entrepreneurial intentions, sustained also by the significant Welch and Brown-Forsythe robustness tests. Partial eta$^2$ shows that 2.68% of the variability in entrepreneurial intentions is accounted by respondents’ cluster membership. Turkey HSD post-hoc comparisons to evaluate pair-wise differences were conducted, revealing significant ($p=0.008<0.05$) differences between undergraduate students with business education (cluster 1) and with entrepreneurial education (cluster 2). The mean of entrepreneurial intentions for master students (cluster 3 and 4) did not significantly differ from the means of cluster 1 and 2 (2/1; 3; 4: 0.008*; 0.204; 0.213; 3/1; 2; 4: 0.963; 0.204; 0.998; 4/ 1; 2; 3: 0.867; 0.213; 0.998), validating partially hypothesis $H_4$. (Table no. 5)
Table no. 5: ANOVA between group statistics, robustness and post-hoc tests

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Sum of squared</th>
<th>F test F significance level</th>
<th>Welch test</th>
<th>Brown-Forsythe test</th>
<th>Turkey HSD test significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>2.041</td>
<td>3.621</td>
<td>0.013*</td>
<td>3.226 (0.024)*</td>
<td>3.621 (0.013)*</td>
</tr>
</tbody>
</table>

The ability of the default model to reproduce data was assessed by the means of a series of goodness of fit indices. Therefore the Goodness-of-Fit Index (GFI=0.818) and its adjusted version (AGFI=0.642), Bentler-Bonett (NFI=0.645), Tucker-Lewis Index (TLI=0.474), Comparative Fit Index (CFI=0.673), Relative Fit Index (RFI=0.429), Incremental Fit Index (IFI=0.685) and Root Mean Square Error of Approximation (RMSEA=0.079) point out reasonable match with standard threshold values. (Table no. 6)

Table no. 6: Model goodness-of-fit measurement indices

<table>
<thead>
<tr>
<th>χ²/df</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>RFI</th>
<th>IFI</th>
<th>TLI</th>
<th>CFI</th>
<th>PNFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.991</td>
<td>.818</td>
<td>.642</td>
<td>.645</td>
<td>.429</td>
<td>.685</td>
<td>.474</td>
<td>.673</td>
<td>.401</td>
<td>.079</td>
</tr>
</tbody>
</table>

Having as theoretical foundation Ajzen’s planned behaviour model (1991, 2002), the valid research hypotheses illustrated, at the investigated population level, the existence of a causal relationship between psychological characteristics and EI mediated by behavioural characteristics and moderated by the academic education specificity and level. Research hypotheses validation indicated also the respondents’ inclination toward acting accordingly to their EI. The obtained empirical results are consistent with other studies in the field, based on broader samples of respondents (Kadir, Salim and Kamarudin, 2012). For the entire sample of respondents, personality traits are antecedents of behavioural characteristics depending on the situational constraints that allow their expression, according to Mischel’s theory (1968 in Rauch and Frese, 2007).

PR positively and significantly affects PA to behave entrepreneurially, the perceived control over the target behaviour and the apparent subjective norms as result of social pressure. SC and NA positively and significantly influence PAs of youth towards entrepreneurial behaviour and PBC, without significantly influencing the perception of SN. LC does not appear as antecedent of behavioural characteristics, although higher education and training in business administration, through conferred knowledge, competences and skills, could provide youth the necessary force to manage or even control the environment. Constraints given by the uncertainty and ambiguity of the Romanian social, economic and political environment can explain the insignificant influence of the LC psychological variable on the entrepreneurial behaviour of key respondents, confirming other empirical results (Nitu-Antonie, Feder, 2013). For the investigated population PA, PBC and SN appeared as significant predictors of EI, in conformity with the study of Kautonen, Van Gelderen and Tornikoski (2013). The conclusion maintains its validity for youth with economic academic studies, if the relationship between behavioural characteristics and EI is moderated by educational level and specificity. In the case of youth with entrepreneurial education, in the presence of the moderator, due to social pressure, the perceived SN behavioural variable does not appear as predictor of EI. For these youth, personality traits like SC and NA are antecedents of EI, the relationship being mediated by PA towards the enterprising behaviour and PBC, as behavioural variables. For the entire sample of respondents, EI is a defining antecedent of real and actual entrepreneurial activities, in conformity with other studies in the field (Krueger et al., 2011; Lee et al., 2011). As the specificity of education increase, regarding the study programs to which the investigated
population belongs, provided entrepreneurial awareness raising and entrepreneurial training needs of the aspirant entrepreneurs. The attained empirical results did not back conclusions sustaining that academic education does not encourage entrepreneurship (Gibb and Hannon, 2006; Fayolle and Gailly, 2009), while business education provides students with technical knowledge for business administration without emphasizing the new firm creation process (Liñán, 2008 in Bae et al., 2014).

Conclusions, limitations and future research directions

The current research highlighted on one hand, the utility model of the reasoned action and planned behaviour theory (Ajzen, 1991, 2002) as predictor of the entrepreneurial behaviour of Romanian youth with higher academic economic studies. On the other hand, research results have led to the idea that within Romanian universities it is necessary to promote entrepreneurship through academic curricula and of professional conciliation to increase students’ awareness to create their own business. The importance of the study should be considered in the context of limited involvement of national universities, through knowledge transfer, in regional business environments (Serbanică, Constantin and Drăgan, 2014) and within the extant link of entrepreneurship, economic development and welfare.

The restricted nature of the sample and the lack of longitudinal data determined the main limitations of the current research. In order to generalize the empirical results, further research should involve extending the investigated population at national level and including in the research model of other socio-demographic characteristics (age, living environment, gender) as moderator factors. Realising a longitudinal study could permit to identify potential effects of economic academic studies, organised in educational cycles, on youth’s entrepreneurial intention and to explain how their intentions turn into real entrepreneurial action through new firm creation.

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References


Fostering Entrepreneurship in a Changing Business Environment


