Entrepreneurship as a career choice for Romanian undergraduate students: who takes it from intention to action

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Abstract

The present study investigates some psychological characteristics that differentiate the students that became entrepreneurs from the aspiring ones. Comparing those who have just attended a training for developing entrepreneurial skills (123) with the ones that started entrepreneurial activity after the training (40), we found that entrepreneurs score higher on the Openness factor (NEOPIR) being more optimistic and enthusiastic. No significant differences on the Extraversion, Consciousness and Agreeableness factors appear. Results on JVIS indicate that the entrepreneurs prefer to find their own solutions than seek advice from others and score significantly higher on the Work Involvement scale (SWS). The general mental ability (GAMA) does not differ significantly between the two groups.. Consistent with these results, more qualitative findings have been drawn from assessment centers.

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1. Introduction

Entrepreneurship is considered to be one of the most important factors that contribute to economic development and has numerous benefits for society. The EU Commission recognizes its importance to the economy and the central role in driving innovation, creating jobs, developing human potential and satisfying new customer demands. As a result, significant resources are invested in encouraging and developing entrepreneurship in Europe.

Similarly to earlier research, as entrepreneurs we define those persons who are the founders, owners of a business under their own liability – mostly small firms.

Scientists are left wondering whether there are any reliable factors related to the human personality that affect the probability of becoming and succeeding as a self-employed entrepreneur. In an interdisciplinary field like entrepreneurship, consensus on the contribution of one of the component

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disciplines is often difficult to achieve. In psychological research, subject to debate is whether some of
the studied attributes precede entrepreneurial behaviour or whether entrepreneurs acquire them in the
process (Chell, 2000). Therefore, in order to identify the personality factors that contribute to the career
decision to enter into entrepreneurship, a research design should compare a group of entering
entrepreneurs, who have not been affected by entrepreneurial experience, with a similar group that
refrains from taking that career path, being able to control factors that refer to age, experience,
tenure, entrepreneurial education and others.

The goal of the present study is to identify the psychological characteristics that define the
undergraduate student that makes the decision to enter into entrepreneurship as a career alternative, as
opposed to the student that remains in the aspiring position.

2. Theoretical perspectives

The methodologies used so far to study the entrepreneurial decision have been changing along the
years. Many works have been carried out pointing to the importance of different demographic variables
such as age, gender, origin, religion, level of studies, labour experience and others (Reynolds, Storey, &
Westhead, 1994). Other authors began looking for the existence of certain personality features or traits
that could be associated with the entrepreneurial activity (Kets de Vries, 1977; McClelland, 1961).
Recently, genetic factors have been found to have some explanatory power, although Shane, Nicolaou,
Cherkas, and Spector (2010) argue that genes probably influence entrepreneurship through mediating
mechanisms, such as personality.

The literature does not lack empirical evidence that personality variables play an important role in
explaining entrepreneurial processes. The meta-analytical review of Zhao and Seibert (2006) analyzed the
Big Five personality dimensions and found that entrepreneurs score significantly higher than managers on
conscientiousness, openness to experience, emotional stability and lower on agreeableness, but not on
extraversion. Caliendo, Frossen & Kritikos (2011) using large, representative data from the German Socio
Economic Panel (SOEP) identified that high values in openness to experience and in extraversion
increase the probability to enter into entrepreneurial activities. Neuroticism shows no difference between
entrepreneurs and employees or not working people. According to the afore mentioned authors the
explanatory power of the Big Five is comparable to one of the most prominent determinants of
entrepreneurship – education – and three times larger than parental self-employment. Rauch and Frese
(2007) found that entrepreneurs scored higher than managers with respect to the characteristics of
innovativeness, stress tolerance, proactive personality, need for autonomy and lower with respect to locus
of control.

On the other hand, Gartner (1985) believes that the diversity in personality traits amongst
entrepreneurs is much greater than differences between entrepreneurs and non-entrepreneurs, thus making
it impossible to determine the personality profile of a typical entrepreneur.

Considering other psychological characteristics generally relevant for career choices and success, there
is little empirical research linking general mental ability (intelligence) to entrepreneurship, probably due
to the fact that entrepreneurship researchers hold that general intelligence is a person-centric variable that
does not go far in explaining differences in entrepreneurs’ behaviour (Gartner, 1988). In 2004, Sternberg
concluded that successful intelligence, not just a subset of its components (analytical, creative, and
practical abilities), is needed for entrepreneurial success.

3. Sample and procedure

The research sample consisted of 163 undergraduate students (59% female, 41% male, medium age 22
years) studying Law, Economics and Psychology at a private university and students at the Technical
Department of a public university in Bucharest, Romania who have expressed their interest in attending a
program delivered by the Career Counseling Center, financed by the European Social Fund, for developing entrepreneurial competencies. The attendance was optional and not rewarded academically. The only condition for being accepted in the program was to be a student, never to have been involved in a business and to express the intention for starting a business or becoming self-employed following graduation or at some stage in the future.

The duration of the program spread over a period of ten months (May 2010 - February 2011). After signing up for the program, all the students participated in a full-day assessment center, where besides simulations and interactive exercises they completed a set of standardized instruments. One month later they started the entrepreneurial training, which lasted for 6 days delivered in 2 weekends 3 months apart, intended to allow the students to have sufficient time to think of a business idea and develop it with the assistance of a trainer. 40 students completed all the legal procedures for opening a SME (Small and Medium Enterprise), meaning that 27% of the entire sample became entrepreneurs.

4. Measures

Some of the most popular tests adapted for the Romanian population were used as quantitative measures. NEO Personality Inventory - Revised (NEO PI-R, Costa & McRae, 1992) a 240-item personality inventory of the Five Factor Model: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. Additionally, the test measures 30 subscales subordinated to the five factors. Jackson Vocational Interest Survey (JVIS) consists of 289 pairs of statements describing job related activities. The detailed JVIS report includes 34 scales divided in Work-Role scales and Work-Style scales and a profile for 10 general occupational themes. Survey of Work Styles (SWS, Jackson & Gray, 1993) is a self-report questionnaire designed to measure six distinct components of the Type A behavior pattern: Anger, Job Dissatisfaction, Time Urgency, Impatience, Work Involvement and Competitiveness. General Ability Measure for Adults (GAMA, Naglieri & Bardos, 1997) is a self-administered, non-verbal and timed test that measures general intellectual ability.

The assessment center was used as a qualitative method for obtaining more detailed information regarding the complex attributes of the potential entrepreneurs, as they have proved to be valid instruments not only for selection purposes in the human resources field, but also for development purposes (Thornton & Rupp, 2006). In designing the assessment center we started from the common developmental assessment center dimensions identified by Rupp et al (2003) and we have selected the ones that overlap with characteristics identified from the entrepreneurship literature (Zhao and Seibert (2006); Caliendo, Fossen & Kritikos, (2011): information seeking, creativity, planning and organizing, adaptability, stress tolerance, conscientiousness, motivation, persuasiveness, interpersonal skills, leadership. The type of simulations used were oral presentation, group discussions with assigned roles and in-basket. For each group of 12 students 3 observers were used - psychologists trained in the methodology of assessment centers.

Entrepreneurship intention (aspiring entrepreneur) was assessed based on the expressed intention to start their own business or become self-employed following graduation or at some stage in the foreseeable future and by signing up in the entrepreneurship skills development program. Entering entrepreneurship was assessed based on the formal and legal involvement as stakeholder in a SME after the completion of the training.

5. Results

Table 1 presents the results of the t-tests comparing the two independent samples, as well as the mean score of the Romanian sample.
Table 1. Means, standard deviations and effect sizes for entering and aspiring entrepreneurs

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Scale</th>
<th>Entrepreneur</th>
<th>Romanian sample means</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness</td>
<td>NEOPIR</td>
<td>entering</td>
<td>111</td>
<td>119.25</td>
<td>12.53</td>
<td>1.986</td>
<td>.048</td>
<td>.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>114.56</td>
<td>14.98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angry Hostility - Neuroticism</td>
<td>NEOPIR</td>
<td>entering</td>
<td>14</td>
<td>11.75</td>
<td>4.738</td>
<td>-2.029</td>
<td>.044</td>
<td>.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>13.63</td>
<td>5.197</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>19.98</td>
<td>3.934</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideas - Openness</td>
<td>NEOPIR</td>
<td>entering</td>
<td>19</td>
<td>22.33</td>
<td>4.747</td>
<td>2.014</td>
<td>.046</td>
<td>.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>20.53</td>
<td>4.928</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Involvement</td>
<td>SWS</td>
<td>entering</td>
<td>50</td>
<td>50.53</td>
<td>7.348</td>
<td>2.251</td>
<td>.026</td>
<td>.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>47.68</td>
<td>6.801</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence</td>
<td>JVIS</td>
<td>entering</td>
<td>11</td>
<td>10.03</td>
<td>2.247</td>
<td>-2.824</td>
<td>.005</td>
<td>.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>11.24</td>
<td>2.410</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IQ GAMA</td>
<td></td>
<td>entering</td>
<td>38</td>
<td>36.68</td>
<td>6.193</td>
<td>-0.503</td>
<td>.616</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspiring</td>
<td>37.22</td>
<td>4.964</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The profile of the entering entrepreneur is observed by comparing the results with the aspiring entrepreneur based on the statistically significant differences (p<.05), and also by comparing the results with the means of the Romanian general sample. The effect size (d - Cohen) is medium for all the presented differences between the two samples, which can be considered a satisfactory result considering the rather limited size of the sample.

Consistent with previous research, the Romanian entering entrepreneur is significantly more opened to new experiences than the aspiring one (NEOPIR-Openness, p<.05, d=.38) Among the Big Five constructs it is probably the one closest to the innovation aspect, describing the individual’s ability to seek new experiences and explore novel ideas. The attributes of exploring new ideas, being creative and taking novel approaches to the entrepreneurial process are crucial for starting a new venture, and should also influence entrepreneurial survival in a positive way.

The most relevant of the subscales of NEOPIR Openness for the entrepreneurial activity is the subscale Ideas, where the entering entrepreneur scores significantly higher that the aspiring one (p<.05, d=.37), proving their tendency to be intellectually curious and opened to new, unconventional ideas.

Although the differences are not significant on the NEOPIR Extraversion factor, the entering entrepreneur is significantly more optimistic and joyful than the aspiring one according to the results on the Positive emotions subscale (p<.05, d=.36). Significant differences do not appear on the NEOPIR Neuroticism factor, but the results on the Anger-Hostility subscale (p<.05, d=.38) show that anger, frustration and bitterness is a less frequent emotion for the student that enters entrepreneurship. The results on these two subscales underline the state of psychological wellbeing that characterizes the entering entrepreneur.

The JVIS - Independence scale brings another difference (p<.01; d=.51), namely that the entering entrepreneur prefers working in an environment free from restraints and close supervision. He feels confined by rules and regulations and would rather find own solutions to problems than seek advice from others.

According to the Survey of Work Styles (SWS), the entering entrepreneur scores higher on the Work involvement scale (p<.05; d=.40) proving that he is highly focused on his work and he puts a whole-hearted effort into the occupational assignments.
Regarding the general ability measure - the IQ - there are no significant differences between the two groups or between them and the general population.

The qualitative aspects identified through the assessment centers are consistent with the quantitative ones, as the entering entrepreneurs display relevant behaviors on some dimensions such as: creativity ("generates imaginative solutions", "innovates in task-related situations", "questions traditional assumptions", "goes beyond the status quo"); motivation ("struggles for advancement through self-development efforts", "sustains effort over long period of time"); adaptability ("shows resilience in front of frustration").

6. Discussions

The strong need for independence represents the motivational drive that takes the novice from an aspiring status to actually entering entrepreneurship. Although not more intelligent than the general population, the student that launches into entrepreneurship as a career alternative is more open-minded welcoming new ideas and seeking new experiences. He is a joyful, optimistic person, seeing the "glass half full" and identifies opportunities that others ignore. The novice entrepreneur does not refrain from hard work, even to the point of exclusion of recreational or social activities.

One of the limitations of the present study comes from the sample size and structure. Differences are not very prominent considering that the students in the comparison group are also aspiring entrepreneurs and it is very possible that they will enter entrepreneurship in the foreseeable future.

From a career development point of view future research is needed to assess which of these characteristics can be developed through training or coaching in order to increase entry into an entrepreneurial career.

7. References