Effects of graduate entrepreneurship education in Bulgaria

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Received: January 23, 2020 | Revised: February 27, 2020 | Accepted: March 31, 2020

JEL Classification: J30, M12, M14, M53.

Abstract
The main focus of this study is students’ entrepreneurial orientation, i.e. the future career plans of undergraduate and graduate students. The research is grounded on primary data, collected through a survey among students in both state and private Bulgarian universities. Focus is placed on estimating the effect of entrepreneurship education in Bulgaria, in view of its role of providing knowledge and skills, needed for the realization of an entrepreneurial plan. This analysis hopes to be seen as an action geared to provide foundation for universities to further reflect, learn, experiment or adopt specific features in curriculum, methods or organization for entrepreneurship learning programmes.

Keywords: graduate entrepreneurship, entrepreneurship education, institution of higher education, entrepreneurial intentions, career objectives, student.

Introduction
The main focus of this research has been mindsets of students, i.e. their willingness and capacity to turn their ideas into practice, supported by necessary skills gained during EE (Entrepreneurship education). Therefore, general university economic or business courses that do not include this specific element have not been considered as “entrepreneurial” and have been excluded from the survey. Imposing such an “entrepreneurial threshold” as preliminary screening guaranteed for a sufficient level of entrepreneurship education among responding institutions, i.e. for a Institution of higher education to be considered to have entrepreneurship education, it should have at least one course where the subject of entrepreneurship accounts for min. 25 % of the course curriculum (5 ects). The discussions presented below attempt to provide empirical answers in relation to how effectively existing entrepreneurship programmes encourage students to become successful entrepreneurs; and to what extent university entrepreneurship education in Bulgaria influence students’ attitudes, perceptions and intentions towards entrepreneurship.

Material and Method
A survey instrument was used to collect students’ data among target participants of undergraduate students taking an entrepreneurship course among in Bulgaria. According to rankings of Ministry of Education in Bulgaria, in all 6 selected universities 29 845 students were taking economics classes in academic year 2018/2019 (Ministry of Education, Bulgaria, 2020). A total of N = 83 students took the survey and hence qualified for an analysis of educational outcomes (UNWE n=8 (9.6%); VUZF, n=4 (4.8%); Ruse-Uni n=15 (18,1%); Trakia-SZ n =26 (31.3%) and VFE n=6 (7,2 %) (see figure 1). The reasons for non-participation of students was mainly non-attendance on the day that the questionnaires were administered due to the fact that students had received no information about of the exact date and timing, hence non-response was purely by chance rather than intentional. Following the method by which the questionnaire was administered, voluntary and anonymous, it is assumed that there were no selectivity issues for the non-response.

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Questions in the survey were formulated in Bulgarian and for convenience were distributed both digitally and/or paper based. The answer categories were presented on a 5-point Likert-type scale, where respondents could indicate the degree at which they can locate their learning expectations in questions like: “to what extent do you expect that this course will help you (1) obtain a general knowledge about entrepreneurship; (2) to obtain necessary skills to work as an entrepreneurial employee, (3) obtain the necessary skills to start your own business venture”. Extra questions were added, asking students to specify the level at which they find paid employment or entrepreneurship more desirable.

The data from the survey were studied in three stages – firstly, a descriptive analysis to establish: (1) students’ broad profile (i.e. age, university, year of study, gender, percentage of those who had started/run a business); (2) students’ general levels of learning expectations and interest towards paid employment or entrepreneurship. Then, at the second step, a correlation analysis was performed to ascertain how/if students’ learning expectations related to: (a) students’ profile (i.e. age, gender, entrepreneurial experience, and entrepreneurial attempts); (b) students’ levels of career attraction (i.e. paid employment and entrepreneurship/self-employment). During the last stage, ANOVA analyses were run to observe the differences among the universities and variables tested.

Results and discussion

The 83 surveyed students had an average age/mean/ of 23,3 years (standard deviation = 4,25), 26,5 % of the respondents are males (n=22) and majority 55,4 % are females (n=46), 18 % of the students (n=15) did not respond the gender question. A number of respondents (36,1 %, table 1) indicated they had started or already run own businesses. As specified, the surveyed students have diverse specializations. The highest numbers of respondents were studying industrial business and entrepreneurship, from University of Trakia, Stara Zagora, followed by University of Economics, Varna, which is explained by their share of distribution. In order to check for differences across different programs and institutions, ANOVA analysis was conducted. The analyses showed no significant differences could be observed between the students from the different university study programs, in terms of age, entrepreneurial experience or social values.

| Valid | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 30        | 36,1    | 36,1          | 36,1               |
| No    | 53        | 63,9    | 63,9          | 100,0              |
| Total | 83        | 100,0   | 100,0         |                    |

Source: author’s own data
Moving onto personal profile information in this survey (table 2) female respondents (n=46) outnumber male respondents (n=22), however, gender had no relationship to any of the variables, e.g. students (male/female), who had started/run own business had no significant positive link with future attempts to run own business. Both categories of students with or without previous experience, male or female, are equally determined to have own entrepreneurship career. This finding is confirmed by GEM annual report for Bulgaria 2016/2017 (Global Entrepreneurship Monitor Bulgaria association, 2016/2017) where the ratio of female to male is somewhat higher for Bulgaria compared to some of the benchmark countries, but indicating more gender equality regarding early-stage entrepreneurial endeavors. Unlike the common view based on previous global GEM research (male are more entrepreneurial), the share of female entrepreneurship in Bulgaria is very similar to the male equivalent (Global Entrepreneurship Monitor Bulgaria association, 2016/2017).

Students’ attraction to paid employment had no correlation with students’ expectation to learn about or for entrepreneurship (table 3). However, the results indicate that attraction to paid employment (34.6 %), had significantly positive correlation with expectations to acquire the necessary skills and knowledge for a paid job as an innovative employee, i.e. to learn in

Table 2 – Gender distribution

| Gender preference entrepreneurship | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------------------|-----------|---------|---------------|-------------------|
| Valid Male                        | 22        | 26,5    | 32,4          | 32,4              |
| Valid Female                      | 46        | 55,4    | 67,6          | 100,0             |
| Valid Total                       | 68        | 81,9    | 100,0         |                   |
| Missing System                    | 15        | 18,1    |               |                   |
| Total                             | 83        | 100,0   |               |                   |

Source: author’s own data

Fig. 2. Age Histogram: Source: author’s own data
entrepreneurship. Also, students’ attraction to a career in entrepreneurship (69.5 \%) correlated (table 4) significantly with all the learning expectations, which may be due to the spread in attraction to entrepreneurship, which was high for most respondents.

In general, this part of the data analysis means that EE, in terms of learning about and in, has more or less met the students’ expectations. As far as the most preferred learning expectation is concerned (to learn for entrepreneurship), EE in all six tested universities fell a bit short of students’ high learning expectations in this area. It is also correct that although the courses did not meet some of the expectations, students are less attracted to paid employment and more attracted towards a career in entrepreneurship (69.5 \% vs 34.6 \%) (table 5). This score suggests that either the knowledge/skills they developed during the course contributed to students gaining more confidence about entrepreneurship as a potential career or it merely raised more awareness of own potential.

Table 3 – Percentage Work preference “Paid job”

| Work preference “Paid Job” | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------------|-----------|---------|---------------|-------------------|
| Valid                      |           |         |               |                   |
| 1                          | 17        | 20.5    | 21.0          | 21.0              |
| 2                          | 5         | 6.0     | 6.2           | 27.2              |
| 3                          | 18        | 21.7    | 22.2          | 49.4              |
| 4                          | 13        | 15.7    | 16.0          | 65.4              |
| 5                          | 28        | 33.7    | 34.6          | 100.0             |
| Total                      | 81        | 97.6    | 100.0         |                   |
| Missing                    | System    | 2       | 2.4           |                   |
| Total                      | 83        | 100.0   |               |                   |

Source: author’s own data

Table 4 – Percentage Work preference “Entrepreneurship”

| Work preference “Entrepreneurship” | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------------------|-----------|---------|---------------|-------------------|
| Valid                             |           |         |               |                   |
| 2                                 | 2         | 2.4     | 2.4           | 2.4               |
| 3                                 | 3         | 3.6     | 3.7           | 6.1               |
| 4                                 | 20        | 24.1    | 24.4          | 30.5              |
| 5                                 | 57        | 68.7    | 69.5          | 100.0             |
| Total                             | 82        | 98.8    | 100.0         |                   |
| Missing                           | System    | 1       | 1.2           |                   |
| Total                             | 83        | 100.0   |               |                   |

Source: author’s own data
Still, variations were found to exist between students from universities in terms of the extent to which they specified they had actually learned about, for and in entrepreneurship. In particular, it appears that students joining in entrepreneurship courses at University of Economics, Varna and Trakia-SZ University are most determined to start their own business and revealed they learned the most about, in and for entrepreneurship of all groups. When comparing the difference between the average learning expectations and learning achievements the findings demonstrate that especially lecturers at VUZF and VFU struggled with meeting the expectations students.

In relation to students’ entrepreneurial profiles 22.9% of the students had taken a course that related to entrepreneurship previously, 36.1% and of the students had some experience in starting and/or running their own businesses and 85.5% of them had employment experience (table 6). While previous research suggests a positive correlation between having a parent/family who is entrepreneurial and starting a firm yourself (Mwasalwib, 2012), results here show a negative correlation between past entrepreneurial attempts and entrepreneurial intentions (table 7, 8).

Table 5 – Percentage attendance entrepreneurship courses

| Previous Experience entrepreneurship courses | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------------------------------|-----------|---------|---------------|--------------------|
| Valid                                       |           |         |               |                    |
| Yes                                         | 19        | 22.9    | 22.9          | 22.9               |
| No                                          | 64        | 77.1    | 77.1          | 100.0              |
| Total                                       | 83        | 100.0   | 100.0         |                    |

Table 6 – Paid job/employment experience

| Previous Experience paid job | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------------------|-----------|---------|---------------|--------------------|
| Valid                        |           |         |               |                    |
| Yes                          | 71        | 85.5    | 85.5          | 85.5               |
| No                           | 12        | 14.5    | 14.5          | 100.0              |
| Total                        | 83        | 100.0   | 100.0         |                    |

Table 7 – Previous experience own business

| Previous Experience own business | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------------------|-----------|---------|---------------|--------------------|
| Valid                           |           |         |               |                    |
| Yes                             | 30        | 36.1    | 36.1          | 36.1               |
| No                              | 53        | 63.9    | 63.9          | 100.0              |
| Total                           | 83        | 100.0   | 100.0         |                    |

Source: author’s own data
Table 8 – Percentage work preference “entrepreneur”

| Work preference “entrepreneur” | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------|-----------|---------|---------------|--------------------|
| Valid                         | 2         | 2.4     | 2.4           | 2.4                |
|                              | 3         | 3.6     | 3.7           | 6.1                |
|                              | 4         | 24.1    | 24.4          | 30.5               |
|                              | 5         | 68.7    | 69.5          | 100.0              |
| Total                        | 82        | 98.8    | 100.0         |                    |

Missing

| System | 1       | 1.2   |
| Total  | 83      | 100.0 |

Source: author’s own data

Furthermore, ANOVA analyses were conducted in order to explore potential differences across universities in terms of learning expectations and attractions towards entrepreneurship or paid employment. There were no significant differences established, where future entrepreneurial intentions were treated as a dependent variable to perception of close people, perceptions on social values and perceived behavioral control.

According to GEM findings, in 2016 (Global Entrepreneurship Monitor, 2016) in Bulgaria, both the perception of opportunities and capabilities increased by the same degree. There is a very well established relationship between entrepreneurial intentions and perceived capabilities to start a business, and therefore the increase in the perceived capabilities to start a business can be seen as an early signal for increasing entrepreneurial intentions reported. Moreover, these results are remarkable given the decrease and varying satisfaction in the positive social attitudes towards entrepreneurship reported.

Rise in attraction to entrepreneurship can also be achieved without meeting students’ learning expectations. This might be a caution signal that the awareness and attraction raised might only be short-term or that they will not be converted into real actions. Actually, current studies have indeed demonstrated that in particular cases partaking in a single entrepreneurship course may in fact lower students’ intentions and behavior towards starting own business as they become aware of their own short comings and lack of needed skills in this area (Oosterbeek, van Praag, & Ijsselstein, 2001). Also, when students become dissatisfied about not learning according to their expectations, the same situation may occur.

GEM research papers over the year (GEM report, 2016) confirm that there is a strong positive correlation between perceived capabilities (skills and confidence) and that reinforcing all forms of education (formal, informal and non-formal) are essential for developing entrepreneurial competencies. Findings so far demonstrate that those with secondary education are among the most active early-stage entrepreneurs in Bulgaria, accounting for more than half of all early stage ventures. Noteworthy, respondents with secondary education account for almost 2/3rds of all necessity-driven early-stage entrepreneurs. Among those with secondary education,
people with vocational training outperform considerably those with standard secondary education as the former group is more than three times more active in undertaking early stage ventures. Those with secondary vocational training, bachelor and master’s educational degrees account for 81% of all opportunity-motivated early-stage entrepreneurship (GEM report, 2016).

Entrepreneurs with junior high school and master’s degrees engage more or less as frequently in necessity-driven as in opportunity-motivated business creation. for entrepreneurs with secondary vocational education and bachelor’s degrees. This pattern is consistent with such labor market dynamics where more educated workers are in high demand and do not have the need to create businesses as a way to find employment. Most of their entrepreneurial endeavors are opportunity-motivated. On the other hand, individuals with lower educational degrees experience severe difficulties in finding a job and may resort to entrepreneurship out of need.

Regarding the criterion of innovativeness, Bulgaria on a national level falls in the group of economies with low innovation activity of its early stage ventures. Only 17.5% (14.5% in 2015) (GEM report, 2016) of Bulgarian entrepreneurs believe their product is new to all or some customers. More specifically, in the global GEM ranking of innovativeness of early-stage entrepreneurship, Bulgaria ranks 52nd out of 65 world economies. In essence, there are very few early stage new ventures in Bulgaria, and only a small fraction of them engage in innovation activities. This is a major constraint of the competitiveness of new ventures in Bulgaria, and it has to be addressed, as it limits the competitiveness of the national economy.

In 2016 only 21.0% (15.8% in 2015) (GEM report, 2016) of the adult population in Bulgaria perceived good opportunities to start a business in the area where they lived. This result is significantly lower than the corresponding figures for Turkey and Greece and much lower than the measure of perceived opportunities in the other two benchmark groups. Similarly, the perceived preparedness for starting a business in Bulgaria is low but improving. 39.7% (35% in 2015) (GEM report, 2016) of the population reports having capabilities to embark on this endeavor. Partially, this result can be attached to the personal fear of failure, but it is important to note that the rates of reported fear of failure are on a par with the average rates for efficiency-driven societies. Still, low perceived capabilities and opportunities for entrepreneurship fit better with the pattern of innovation driven societies, which also report higher rates of fear of failure. In Bulgaria, as in all factor-driven and efficiency-driven economies, the level of capabilities is markedly greater than the level of opportunities. This finding is consistent with explanations related to the ease of market entry and the development of markets in general, but it may also reveal a systemic overestimation of one’s skills and knowledge.

For Bulgaria in general, the number of potential entrepreneurs is extremely low (5.3% in 2015) not only compared to benchmark groups, but also globally. While there are countries with low level of entrepreneurial intentions, most of them are innovation-driven. In fact, the average level of entrepreneurial intentions for innovation-driven economies as a group in 2016 is 15%, and it is significantly lower than the number for factor-driven economies (30%) and efficiency-driven economies (26%). Arguably, both the relatively low perceived opportunities and weak individual capabilities (these include both skills and self-confidence) explain the result in the case of Bulgaria, but it is clear that the stronger explanation relates to deficiencies in the business environment as respondents see few profitable business opportunities (GEM report, 2016).

Conclusions

A well educated workforce, properly skilled and with capability for innovation, is fundamental to an economy’s competitiveness, productivity and growth. A comprehensive
education system is, therefore, one of the key essentials for a competitive country. It is reasonable to believe that a high-quality education system will have a positive influence on individuals’ belief that they can successfully pursue an entrepreneurial venture, as it will instill self-confidence and give the adequate skill set to become a successful entrepreneur. While the numbers remain small compared to the benchmark groups, there is evidence to believe that certain improvements in the entrepreneurial environment have happened. Yet, more regulatory and policy changes need to take place to create a supportive entrepreneurial ecosystem. Besides, an outdated educational system that has been undergoing continuous reforms and revisions does not help develop the necessary skill sets or the self-confidence needed to stimulate entrepreneurship. Recent reforms will surely require more time to make a measurable difference. An educational system that includes more hands-on learning and competent instruction on entrepreneurship topics would address these weaknesses and become instrumental in generating a national culture of entrepreneurship.

The outcomes in this study show that Bulgarian EE influences significantly students’ attraction to entrepreneurship, and correspondingly lowers their interest towards paid employment. Given the portion of students that were attracted to entrepreneurship/ run their own business (36, 1%) prior to entering the courses, these results are pleasing and might be expected. The increased attraction is very much in line with the original goals of universities to achieve these results.

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