

ASSESSMENT OF THE EFFECTIVENESS OF THE ENTREPRENEURSHIP CLASSES IN THE BULGARIAN SECONDARY EDUCATION

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ABSTRACT

In recent decades, entrepreneurship has been increasingly promoted as a solution to the problems associated with financial instability and their dire implications on the youth.

This research aims to investigate the effectiveness of the Entrepreneurship classes in Bulgarian secondary education through the Entrepreneurial Event Model of Shapero.

The results showed that the Entrepreneurship classes affected only the students' perceptions of entrepreneurial feasibility but had no effect on their propensity to act toward entrepreneurship or on their perceptions of the desirability of an entrepreneurial career.

The level of pleasantness of the delivered Entrepreneurship classes had a significant impact on the students' perceived feasibility of an entrepreneurial career.

The non-school entrepreneurial experience had a greater and more comprehensive impact on the participating students' propensity to act toward entrepreneurship, their perceived entrepreneurial feasibility and their perceived entrepreneurial desirability than the currently offered Entrepreneurship classes.

Keywords: Youth Entrepreneurship, Education, Entrepreneurial Intentions, Entrepreneurship Propensity, Perceived Feasibility, Entrepreneurial Desirability, Effectiveness.

INTRODUCTION

In recent decades, entrepreneurship has been increasingly promoted as a solution to the problems associated with financial instability (Chigunta, 2002; Mason, 2011; Kew et al., 2013; Kautonen, Gelderen & Fink, 2015; Ribeiro-Soriano, 2017; Yessoufou, Blok & Omta, 2018). The term entrepreneurship encompasses a scope of activities, such as recognising market opportunities, setting up new businesses or expanding existing ones. Entrepreneurship thereby results in different forms of self-motivated ventures with self-employment being just one example (Chigunta, 2002; Kew et al., 2013; Amorós & Bosma, 2014). Put differently, entrepreneurs act in a way that favours their personal well-being and in the same time contributes to the general economic growth of the nation.

The global recession of this century and its lingering aftermath have led to the proliferation of national and international strategies for entrepreneurship promotion. The European Commission (2013) recognises that Europe is at present hit by the worst economic crisis of the last half a century, the unemployment rates are skyrocketing and the small and medium enterprises (SMEs) are struggling to survive. The European Union's (EU) growth

strategy for the current decade, Europe 2020, explicitly states: “to bring Europe back to growth and higher levels of employment, Europe needs more entrepreneurs” (European Commission, 2013). Three lines of action have been suggested for the attainment of this goal: improving the quality and availability of the entrepreneurial education and training, making it easier to start and sustain a business, employing different communication techniques as means of popularising entrepreneurship as a viable career path (European Commission, 2013).

Entrepreneurial education, in particular, is believed to increase the propensity of young people of becoming entrepreneurs and is therefore expected to increase the number of entrepreneurs in the future (Imaginário et al., 2016). Even if it does not ultimately lead to more self-employed young people, entrepreneurial education should at least teach the youth some invaluable skills, such as perseverance, responsibility and initiative, i.e., entrepreneurial education should at least improve the quality of the future workforce (European Commission, 2013).

In view of the latter observation, it is not surprising that the last decade has witnessed a trend of purposeful introduction and/or integration of the subject of Entrepreneurship in the national school curricula of more and more European countries (Education, Audiovisual and Culture Executive Agency, 2012). Bulgaria is one of the EU members which adopted a National Strategy for Entrepreneurial Education in School in 2008 and is now in the second round of measures (Ministry of Youth and Sports, 2012). In fact, it should be noted that a few Bulgarian vocational high-schools, mostly the high-schools with economic and/or business profiles, have taught Entrepreneurship as a compulsory subject in some grade levels even before the introduction of the National Strategy or more specifically since 2003 (European Commission 2004). Even so, not a single research on the effectiveness of the Entrepreneurship classes in fostering entrepreneurial intentions in the Bulgarian students has been carried out so far.

This research investigated the effectiveness of the Entrepreneurship classes in the Bulgarian secondary education in order to provide empirical insight into the extent to which these classes actually succeed in motivating future entrepreneurs. The sooner the effectiveness of this education is evaluated, the quicker the country can mend and improve the offered classes and ultimately, the faster it can benefit from the advantages associated with youth entrepreneurship.

BACKGROUND AND CONCEPTS

Ever since the European Charter for Small Enterprises called for the integration of “knowledge about business and entrepreneurship needs...at all school levels” and the introduction of “specific business-related modules...at secondary level and at colleges and universities”, the entrepreneurial education in Europe has been gaining momentum and has at present established some coverage in all European countries (Education, Audiovisual and Culture Executive Agency, 2012).

One reason to focus on delivering entrepreneurial education to the youth lies in the fact that young people are more vulnerable to the effects of economic crises than adults; “When general unemployment rises by 1%, youth unemployment rises by 1.8%” (European Microfinance Network, 2012). Kew et al., (2013) further observe that young people are up to three times more likely to be unemployed than adults. The latest Eurostat (2014) data, generally confirm the latter observation (Table 1).

	Male		Female		<25 years	25-74 years
	2007	2013	2007	2012	2013	2013
EU-28	6.6	10.8	7.9	10.9	23.4	9.5
Euro area	6.7	11.9	8.6	12.1	24	10.7
Belgium	6.7	8.7	8.5	8.2	23.7	7.1
Bulgaria	6.5	13.9	7.4	11.8	28.4	11.8
Czech Republic	4.2	5.9	6.7	8.3	18.9	6.1
Denmark	3.4	6.7	4.2	7.3	13	5.9
Germany	8.6	5.6	8.8	5	7.9	5
Estonia	5.4	9.1	3.8	8.2	18.7	7.6
Ireland	5	15	4.3	10.7	26.8	11.6
Greece	5.2	24.3	12.8	31.3	58.3	25.3
Spain	6.4	25.6	10.7	26.7	55.5	23.8
France	7.6	10.4	8.5	10.2	24.8	8.8
Croatia	8.4	17.8	11.2	16.6	49.7	14.1
Italy	4.9	11.5	7.9	13.1	40	10.3
Cyprus	3.4	16.6	4.6	15.2	38.9	13.6
Latvia	6.5	12.6	5.6	11.3	23.2	10.7
Lithuania	4.2	13.1	4.3	10.5	21.9	10.9
Luxembourg	3.4	5.4	5.1	6.4	17.4	5
Hungary	7.1	10.2	7.7	10.2	27.2	8.9
Malta	5.9	6.6	7.6	6.4	13.5	5.2
Netherlands	3.1	7.1	4.1	6.3	11	5.9
Austria	3.9	4.9	5	4.9	9.2	4.3
Poland	9	9.7	10.3	11.1	27.3	8.8
Portugal	8	16.4	10	16.6	37.7	14.8
Romania	7.2	7.9	5.4	6.6	23.6	5.9
Slovenia	4	9.5	5.9	10.9	21.6	9.2
Slovakia	10	14	12.8	14.5	33.7	12.5
Finland	6.5	8.8	7.2	7.5	19.9	6.5
Sweden	5.9	8.2	6.5	7.8	23.4	5.7
United Kingdom	5.6	8	5	7	20.5	5.4
Iceland	2.3	5.7	2.3	5.1	10.7	4.3
Norway	2.6	3.7	2.5	3.3	9.1	2.6
Turkey	8.7	7.9	9.1	10.5	17	7.1
United States	4.7	7.6	4.5	7.1	15.5	6.1
Japan	3.9	4.3	3.7	3.7	6.8	3.8

If properly stimulated, youth entrepreneurship is however assumed to have the potential to alleviate the above-described situation (European Microfinance Network, 2012; OECD,

2012). First, it can create employment for the young person who owns the business as well as for his employees. Second, it can deliver new products and services as young people are typically more prone to innovation and creativity. Third, it can equip young people with a variety of skills that they can later on apply in different spheres of life and business (e.g. decisiveness, communication skills, patience, etc.) (Chigunta, 2002; Kew et al., 2013; Pouratashi, 2015; Imaginário et al., 2016; Ndofirepi & Rambe, 2017). Indeed, entrepreneurial education appears to entail a number of socio-economic benefits.

Entrepreneurial education and its alleged benefits are currently being delivered through formal channels, i.e., school and university curricula or through informal ones, i.e., extra-curricular activities (Chigunta, 2002; Vitosh Research, 2005; OECD, 2009; Education, Audiovisual and Culture Executive Agency, 2012; European Commission, 2013; Kew et al., 2013; Kautonen, Gelderen & Fink, 2015; Imaginário et al., 2016; Ndofirepi & Rambe, 2017). The focus of this paper will be the curricular activities in schools as they target the youngest of the youth and are thus supposed to have the greatest impact on the latter's attitudes to entrepreneurial activities (Imaginário et al., 2016); "It is believed that the ideal stage to acquire basic knowledge about entrepreneurship and to foster a positive attitude towards entrepreneurship is during childhood and adolescence years" (Peterman & Kennedy, 2003). Additionally, "formal education...reaches most young people in a structured and measurable manner", means that the formal Entrepreneurship classes not only impact the largest share of young people but do so in an empirically testable way (European Youth Forum, 2011).

Entrepreneurship as a curricular subject assumes several forms. It can be taught as a separate subject or it can feature as a part of another subject; similarly, it can be compulsory or it can be optional (Education, Audiovisual and Culture Executive Agency, 2012).

In primary school, Entrepreneurship is typically incorporated into other subjects. Bulgarian primary schoolers, for example, get their first experience of Entrepreneurship learning through the compulsory subject Home Economics and Technology (Education, Audiovisual and Culture Executive Agency, 2012).

In secondary education however it is not unusual to have Entrepreneurship as a separate subject. For example, in regular Bulgarian high-schools students learn about entrepreneurship through the social science subjects, while in vocational Bulgarian high-schools Entrepreneurship is a separate compulsory subject (Education, Audiovisual and Culture Executive Agency, 2012).

Figures 1-3 show the current state of entrepreneurial education in different school levels across Europe and testify to the growing coverage of the subject.

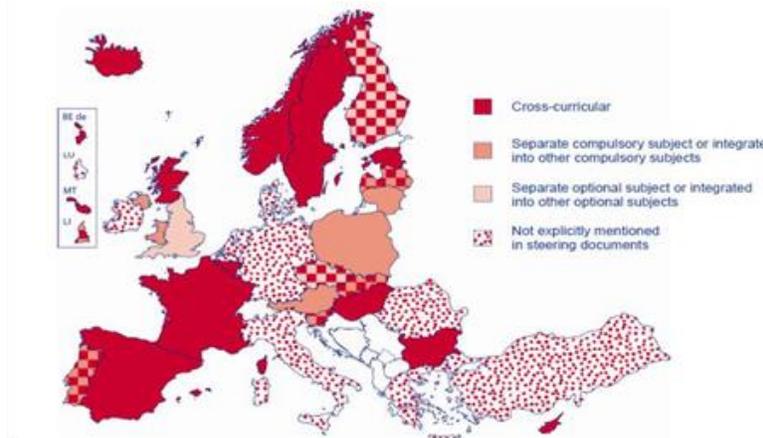


FIGURE 1
APPROACHES TO ENTREPRENEURSHIP EDUCATION IN PRIMARY EDUCATION (ISCED 1), ACCORDING TO CENTRAL STEERING DOCUMENTS, 2011/2012 (EDUCATION, AUDIOVISUAL AND CULTURE EXECUTIVE AGENCY 2012:14)



FIGURE 2
APPROACHES TO ENTREPRENEURSHIP EDUCATION IN LOWER GENERAL SECONDARY EDUCATION (ISCED 2), ACCORDING TO CENTRAL STEERING DOCUMENTS, 2011/2012 (EDUCATION, AUDIOVISUAL AND CULTURE EXECUTIVE AGENCY 2012:15)

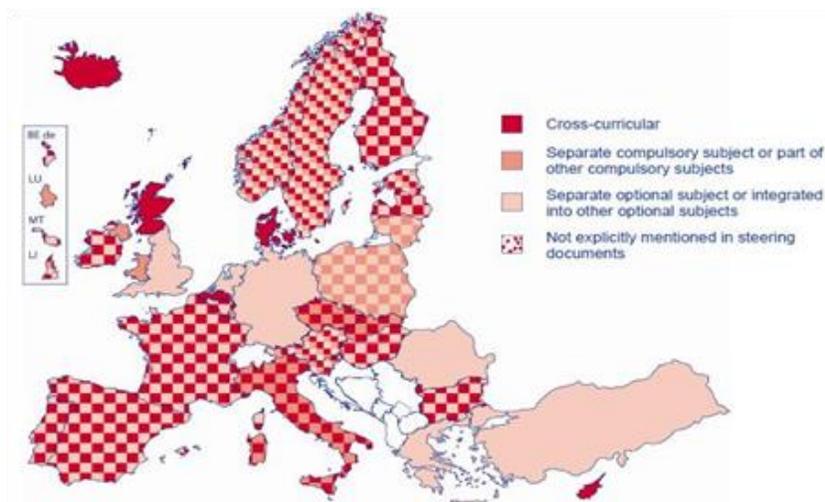


FIGURE 3
APPROACHES TO ENTREPRENEURSHIP EDUCATION IN GENERAL UPPER SECONDARY EDUCATION (ISCED 3), ACCORDING TO CENTRAL STEERING DOCUMENTS, 2011/2012 (EDUCATION, AUDIOVISUAL AND CULTURE EXECUTIVE AGENCY 2012:16).

Despite the growing focus on delivering entrepreneurial education in European schools, there is not yet resolute proof of the effectiveness of this education in creating future entrepreneurs (Duijn, 2004; Athayde, 2009; European Youth Forum, 2011; Mason, 2011; OECD, 2012; Green, 2013; Imaginário et al., 2016). As Kew et al. (2013) point out: “GEM research has consistently rated entrepreneurship education at primary and secondary school levels as poor”.

The overwhelming part of the existing academic research on the topic of entrepreneurial education has focused on the effectiveness of entrepreneurial programmes in tertiary education and has suggested that the entrepreneurial potential of the youth could be influenced by various factors. For example, Autio et al. (2001), Liñán and Chen (2006), Moriano et al. (2011) and Liñán, Nabi and Krueger (2013) have sought for differences in entrepreneurial intentions across countries to confirm that such differences exist. Other studies have tried to explain the differences in entrepreneurial intentions through the mediating effects of past entrepreneurial experiences. Souitaris, Zerbinati and Al-Laham (2007) have found that after the completion of an Entrepreneurship course, a sample of French and British students of science and engineering increased their entrepreneurial intentions and bettered their entrepreneurial attitudes, as compared to a sample of students who did not take the course. In a study on the effects of entrepreneurial programmes in nine European universities and the European Confederation of Junior Enterprises, the European Commission (2012) has likewise concluded that entrepreneurial education had a significant positive impact on the entrepreneurial intentions of the studied sample.

Other researchers have studied the importance of one’s personality in the formation of entrepreneurial intentions. Comparing the entrepreneurial intentions and attitudes of business students who had and who had not participated in an Entrepreneurship course in the Dutch University of Maastricht, Duijn (2004) discovered a direct positive link between entrepreneurial education and entrepreneurial intentions and an indirect positive link between personality and the latter; to be more specific, students who were more willing to take initiative and risk were

discovered to have higher entrepreneurial intentions. Wang, Lu and Millington (2011) have similarly looked at personality traits as determinants of entrepreneurial intention and have concluded that: “the entrepreneurial personality is shown to have impact on the perceived desirability and perceived feasibility and thus, indirect impact on entrepreneurial intention”.

It can be overall concluded that the existing research on the impact of entrepreneurial learning in tertiary education generally concedes to the effectiveness of such programmes. When it comes to the effectiveness of entrepreneurship learning in school however, much less research is available.

As in the case of the effectiveness of entrepreneurial programmes in university, some researchers have tried to explain the success of entrepreneurial programmes in school on the grounds of students’ personality traits. For example, Schmitt-Rodermund and Vondracek (2002) have studied a sample of German 10th graders in order to isolate the personality precursors that are most likely to lead to an entrepreneurial career. They have concluded that entrepreneurial interest, skills and behavioural traits, alongside willingness to expend effort were the strongest antecedents of entrepreneurship.

Athayde (2009), on the other hand, has considered personality traits too static to be sole determinants of entrepreneurial prospects and has thus studied the effects of past entrepreneurial experience. She has discovered that the participation in a youth entrepreneurship programme had a positive impact on the entrepreneurial intentions of the students of six schools in London.

Peterman and Kennedy (2003) have similarly found that students’ participation in a youth entrepreneurship programme in Australia bettered their perceptions of entrepreneurship, making this career path seem more desirable and accessible. Such studies suggest that the existence of any entrepreneurial experience is indeed a strong precursor of entrepreneurial intentions.

Yet, despite the general assumption that entrepreneurial education should foster entrepreneurial intentions, some studies have concluded the opposite. Oosterbeek et al. (2010), cited in Green, (2013) have found that the Dutch entrepreneurship programme Association Jong Ondernemen actually lowered the entrepreneurial intentions of its participants. Steenekamp, van der Merwe and Athayde (2011) have found no connection between the entrepreneurial activities in 16 South African schools and the willingness of the students to pursue an entrepreneurial career. In fact, according Flash Eurobarometer (2012), only 50% of Europeans agree that their schools helped them develop entrepreneurial mind-sets and a sense of initiative; 41% hold that in school they acquired the necessary skills and knowledge to start-up a business; barely 28% believe that their schools made them interested in pursuing an entrepreneurial career. Hence, entrepreneurial education appears to not always be as successful as expected.

In the particular case of Bulgaria, there is no data on the effectiveness of the on-going National Strategy for Entrepreneurial Education in School.

To the best of our knowledge, only one study on the topic of Entrepreneurship classes in Bulgarian high-schools currently exists but it suffers from the following limitations. The research in question took place in 2005 and hence assessed the state of Bulgarian entrepreneurial education very close to its beginning and still long before the launch of the National Strategy. In addition, barely 8% of the studied sample of 1000 students admitted to have ever studied Entrepreneurship in school (Vitosha Research, 2005). What is more, the results of Vitosha Research (2005) did not differentiate between the answers of students who had and students who had not studied Entrepreneurship. For example, the research found that nearly 80% of the participating students thought that studying Entrepreneurship was interesting and/or very interesting and 70% declared that they would like to start an own business after graduating high-

school, but there was no information about how these percentages break down in accordance to whether the student had or had not studied the subject in school. Put simply, the study gave no insight into the question of whether and to what extent the experience of having Entrepreneurship classes in school impacted the entrepreneurial intentions of the Bulgarian high-school students.

The scarce body of knowledge on the effectiveness of entrepreneurial education in school together with the practically non-existent data on the effectiveness of Bulgarian entrepreneurial education in school call for more research on the topic. The literature is unanimous that more insight is necessary so that the quality of the offered in-school programmes can be improved (Athayde, 2009; European Youth Forum, 2011; Manson, 2011; Education, Audiovisual and Culture Executive Agency, 2012; OECD, 2012; Green, 2013; Kew et al., 2013; Peterman and Kennedy, 2013; Pouratashi, 2015; Ndofirepi & Rambe, 2017).

METHODOLOGY

Several models for the assessment of the effects of the entrepreneurial classes in school were considered for the aims of this study.

The research could have adopted the General Enterprise Tendency Test, measuring the effects of entrepreneurial education on specific personality traits: “calculated risk taking; creative tendency; high need for achievement; high need for autonomy; and an internal locus of control” (Caird, 1991, cited in Athayde, 2009). Personality traits however tend to be fixed and might have been unable to reflect any dynamic change induced by the effect of Entrepreneurship classes.

This study had to therefore resort to a model that could accurately account for a dynamic change caused by an external event. The two most popular models that take into account contextual factors are the theory of planned behaviour (TPB) and the entrepreneurial event model (EEM), also known as Shapero’s model (Liñán, 2004). Both frameworks assess the effects of three motivational precursors on the formation of entrepreneurial intentions and rely on the assumption that intent is the ultimate antecedent of behaviour (Krueger, 1993; Krueger, Reilly & Carsrud, 2000; Liñán, 2004; Souitaris, Zerbinati & Al-Laham, 2007). In the TPB, these are: attitude toward behaviour, i.e., to what extent an individual approves or disapproves of an entrepreneurial career, subjective norm, i.e., to what extent the reference groups of the individual approve or disapprove of his pursuit of an entrepreneurial career and the perceived behavioural control, i.e., how easy it seems to become an entrepreneur (Krueger, Reilly & Carsrud, 2000; Liñán, 2004; Schlaegel & Koenig, 2014). On the other hand, the EEM considers the perceived desirability, i.e., how much an individual desires to become an entrepreneur (this criterion resembles the attitude toward behaviour in the TPB), the propensity to act, i.e., how likely it is that the individual will recognise and seize entrepreneurial opportunities and the perceived feasibility, i.e., how accessible an entrepreneurial career seems (this criterion is similar to the perceived behavioural control in the TPB) (Krueger, 1993; Krueger, Reilly & Carsrud, 2000; Liñán, 2004; Wang, Lu & Millington, 2011; Schlaegel & Koenig, 2014). In other words, while the TPB emphasises on social factors as determinants of intention (the social norm criterion), the EEM puts more emphasis on situational factors (the propensity to act criterion). That is to say, the EEM recognises the importance of specific events, i.e., triggers, in creating entrepreneurial intentions.

In light of the aforementioned observations, it was decided that the EEM model would be the most suitable tool for the purpose of assessing to what extent the Entrepreneurship classes in Bulgarian high-schools succeed in fostering entrepreneurial intentions in the students.

Given the theoretical model of the investigation, the following objectives were defined:

1. To measure and compare the propensity to act toward entrepreneurship of Bulgarian students who have and who have not had Entrepreneurship classes in high-school;
2. To measure and compare the perceived entrepreneurial desirability of Bulgarian students who have and who have not had Entrepreneurship classes in high-school;
3. To measure and compare the perceived entrepreneurial desirability of Bulgarian students who have and who have not had Entrepreneurship classes in high-school;
4. To measure and compare the effects of Entrepreneurship classes in high-school to the effects of non-school entrepreneurial experiences on fostering entrepreneurial intentions in the students.

Taking into account the literature review together with the objectives of the research, the following hypotheses were formulated (Figure 4):

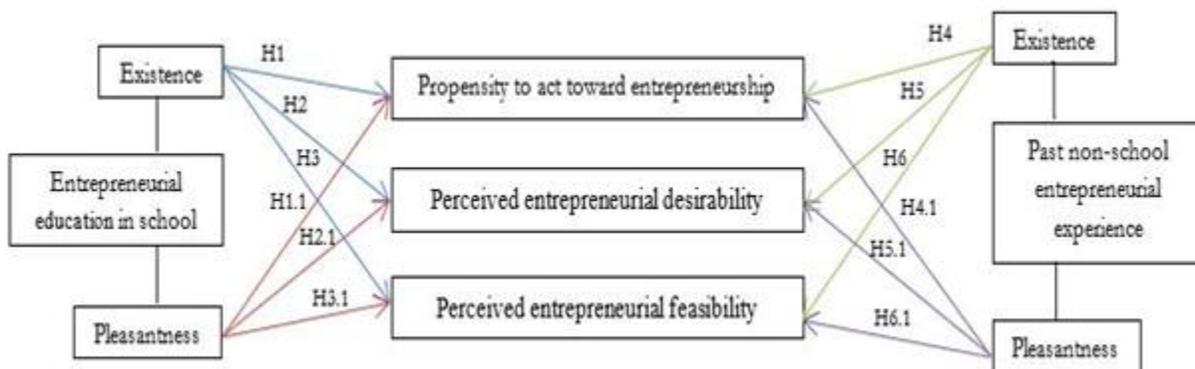


FIGURE 4
THEORETICAL MODEL AND HYPOTHESIS

- H1* The students who have had Entrepreneurship classes in high-school will exhibit higher propensity to act toward entrepreneurship than the students who have not yet had these classes.
- H1.1* The more pleasant the Entrepreneurship classes have been, the higher the propensity to act toward entrepreneurship will be.
- H2* The students who have had Entrepreneurship classes in high-school will exhibit higher perceived entrepreneurial desirability than the students who have not yet had these classes.
- H2.1* The more pleasant the Entrepreneurship classes have been, the higher the perceived entrepreneurial desirability will be.
- H3* The students who have had Entrepreneurship classes in high-school will exhibit higher perceived entrepreneurial feasibility than the students who have not yet had these classes.
- H3.1* The more pleasant the Entrepreneurship classes have been, the higher the perceived entrepreneurial feasibility will be.
- H4:* The students who have had past non-school entrepreneurial experience will exhibit higher propensity to act toward entrepreneurship than the students who have not had such an experience.
- H4.1:* The more pleasant the past non-school entrepreneurial experience has been, the higher the propensity to act toward entrepreneurship will be.

H5: The students who have had past non-school entrepreneurial experience will exhibit higher perceived entrepreneurial desirability than the students who have not had such an experience.

H5.1: The more pleasant the past non-school entrepreneurial experience has been, the higher the perceived entrepreneurial desirability will be.

H6: The students who have had past non-school entrepreneurial experience will exhibit higher perceived entrepreneurial feasibility than the students who have not had such an experience.

H6.1: The more pleasant the past non-school entrepreneurial experience has been, the higher the perceived entrepreneurial feasibility will be.

SAMPLING

The sample for this research was drawn from the Professional High School of Hoisting, Constructional and Transport Machinery and Equipment in Sofia. This is a public, all-boys vocational high-school with a technical profile. The subject of Entrepreneurship has been taught there since 2004 and currently, the subject is compulsory for all 11th graders. A total of 238 students from five grade levels participated in the survey (Table 2).

		Have you had entrepreneurship classes in school yet?		Total
		Yes	No	
Which grade are you in?	8	0	26	13
	9	0	74	37
	10	0	50	25
	11	44	0	22
	12	44	0	22
	Total	88	150	238

The 8th, 9th and 10th graders had not yet studied Entrepreneurship at the time of the survey. The 11th graders were at the time having the class and the 12th graders had already had the class the previous school year.

All participants agreed to voluntarily participate in the survey and no special incentives had to be offered. The data for this research were collected through a pen-and-paper self-administered questionnaire, modelled after the classical EEM scale. The distributed questionnaire was in Bulgarian, i.e., all questions that were adapted from the classical model had to be translated in Bulgarian and then, for the purpose of this research, all of the questions and answers had to be translated back in English.

MEASURES AND VARIABLES

The original EEM scale was developed by Shapero in the 1980s but was never officially published (Krueger, 1993; Krueger, Reilly & Carsrud, 2000). It entailed one question measuring the propensity to act toward entrepreneurship through a yes/no question; five items measuring perceived entrepreneurial feasibility; three items measuring perceived entrepreneurial

desirability; four questions assessing the breadth of past entrepreneurial experience (Krueger, 1993; Krueger, Reilly & Carsrud, 2000; Peterman & Kennedy, 2003).

The questionnaire for this research upgraded the original one by adding a few extra questions and variables by reason of becoming more quantitatively precise. The variables used were as follows:

1. The grade-level of the respondent;
2. The respondent's presence/absence of experience of studying the subject of Entrepreneurship at school;
3. Pleasantness of the experience of studying the subject of Entrepreneurship at school;
4. Propensity to act toward entrepreneurship;
5. Perceived entrepreneurial feasibility;
6. Perceived entrepreneurial desirability;
7. Breadth of past entrepreneurial experience outside school;
8. Total propensity to act;
9. Total perceived feasibility;
10. Total perceived desirability.

A teacher distributed the survey at the beginning of her classes with the students from all grade levels in November, 2014. Upon distributing the surveys, the teacher explained every time the academic importance of the research as well as the fact that it would help for the betterment of the future Entrepreneurship classes in the country. She emphasised that the survey was anonymous but promised that when the data were analysed, she would tell the participants the overall results of the research.

RESULTS

The collected data were processed and analysed via SPSS version 20. The Cronbach alpha for all variables was calculated at 0.757, which is high enough for the results to be considered reliable.

In order to test whether the Entrepreneurship classes at the studied high-school had any effect on the entrepreneurial intentions of the participating students, a T-test for independent samples was run; the independent variable was the presence or absence of any experience of having Entrepreneurship classes at school and the depended variables were the total propensity to act toward entrepreneurship, the total perceived entrepreneurial feasibility and the total perceived entrepreneurial desirability (Table 3).

	Have you had entrepreneurship classes in school yet?	N	Mean	Std. Deviation	Std. Error Mean
Total Propensity to act	Yes	88	5.6250	1.44321	0.21757
	No	150	5.3333	1.56467	0.18067
Total Perceived Feasibility	Yes	88	4.4500	0.99124	0.14944
	No	150	3.9973	0.77981	0.09004
Total Perceived Desirability	Yes	88	5.3580	1.31560	0.19833
	No	150	5.1567	1.18534	0.13687

The only significant difference of means emerged in regards to the perceived entrepreneurial feasibility, meaning that the students who have already had Entrepreneurship classes in high-school exhibited higher perceived entrepreneurial feasibility than students who have not yet had these classes. Only H3 was thus confirmed (Table 4).

		Levene's test for equality of variances		T test for Equality of means						
		F	Sig	t	df	Sig (2 Tailed)	Mean Difference	Std. error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Propensity To Act	Equal Variances Assumed	0.157	0.693	1.010	117	0.315	0.29167	0.28886	-0.28041	0.86374
	Equal Variances not Assumed			1.031	96.176	0.305	0.29167	0.28281	-0.26969	0.85302
Total Perceived Feasibility	Equal Variances Assumed	6.034	0.015	2.760	117	0.007	0.45267	0.16399	0.12790	0.77743
	Equal Variances not Assumed			2.595	74.209	0.011	0.45267	0.17447	0.10505	0.80028
Total Perceived Desirability	Equal Variances Assumed	0.575	0.450	0.858	117	0.392	0.20129	0.23449	-0.26310	0.66567
	Equal Variances not Assumed			0.835	82.797	0.406	0.20129	0.24098	-0.27802	0.68060

The results showed that there was a significant ($p=0.005$) yet weak linear correlation (0.254) between the level of pleasantness of the Entrepreneurship classes in school and the perceived entrepreneurial feasibility, i.e., the students who evaluated their experience of having Entrepreneurship classes as more pleasant, were slightly more likely to perceive the pursuit of an entrepreneurial career as a viable option (Table 5). H3.1 was therefore confirmed.

		IF Yes, how do you rate the Experience	TOTAL Propensity to ACT	TOTAL Perceived Feasibility	TOTAL Perceived Desirability
IF Yes, how do you rate the Experience	Correction Coefficient	1.000	0.116	0.254**	0.083
	Sig (2 Tailed)		0.209	0.005	0.368
	N	119	119	119	119
IF Yes, how do you rate the Experience	Correction Coefficient	0.116	1.000	0.514**	0.622*
	Sig (2 Tailed)	0.209	.	0.000	0.000
	N	119	119	119	119
IF Yes, how do you rate the Experience	Correction Coefficient	0.254**	0.514**	1.000	0.635
	Sig (2 Tailed)	0.005	0.000	.	0.000
	N	119	119	119	119
IF Yes, how do you rate the Experience	Correction Coefficient	0.083	0.622**	0.635**	1.000
	Sig (2 Tailed)	0.368	0.000	0.000	.
	N	119	119	119	119

**Correlation is significant at 0.01 levels (2 tailed)

It is also interesting to note that the perceived entrepreneurial feasibility correlated very significantly and at a medium strength with both the perceived entrepreneurial desirability and the propensity to act toward entrepreneurship. This suggests that even though the level of pleasantness of the Entrepreneurship classes did not directly influence the perceived entrepreneurial desirability and the propensity to act toward entrepreneurship, it influenced them indirectly via the mediating effect of the perceived entrepreneurial feasibility.

In order to test whether the past entrepreneurial experience outside school had any effect on the entrepreneurial intentions of the participating students, a T-test for independent samples was run with the independent variables being respectively: the presence or absence of any experience of having parents who have ever started a business, the presence or absence of any experience of having a friend who has ever started a business, the presence or absence of any experience of ever working for a SME and the presence or absence of any experience of ever having started an own business; the depended variables were the total propensity to act, the total perceived feasibility and the total perceived desirability.

The results showed that the students who had experience of their parents starting an own business exhibited significantly higher levels of propensity to act ($p=0.001$), perceived feasibility ($p=0.000$) and perceived desirability ($p=0.000$). The same components appeared to be influenced

by the students' past experience of starting an own business with Sig.=0.005 for propensity to act, Sig.=0.001 for perceived feasibility and Sig.=0.039 for perceived desirability.

The experience of having a friend who has ever started a business emerged to have an impact on the students' propensity to act toward entrepreneurship ($p=0.020$) and on their perceived entrepreneurial feasibility ($p=0.010$).

The experience of working for a SME appeared to have a favourable influence only on the students' perceived entrepreneurial feasibility ($p=0.002$).

Overall, it can be inferred that the non-school entrepreneurial experience had some effect on the entrepreneurial intentions of the students. This effect was found to be full-fledged for students whose parents have started a business and for students who have tried to start a business themselves; it was however only partial for students who had a friend entrepreneur and for students who have worked for a SME. That is to say, H4 was partially confirmed, H5 was partially confirmed and H6 was fully confirmed.

In order to test whether the level of pleasantness of the non-school entrepreneurial experience had any effect on the entrepreneurial intentions of the participating students, the level of pleasantness of each of the non-school entrepreneurial experiences was correlated with the total propensity to act, the total perceived feasibility and the total perceived desirability.

The results revealed very significant linear relationships between the pleasantness of the experience of having entrepreneurial parents and the propensity to act ($p=0.006$), the perceived entrepreneurial feasibility ($p=0.000$) and the perceived entrepreneurial desirability ($p=0.001$). Yet, none of these relationships was particularly strong, given that their coefficients were respectively 0.251, 0.378 and 0.299.

In a similar fashion, the pleasantness of the past experience of starting an own business was found to correlate significantly with the propensity to act toward entrepreneurship ($p=0.003$), the perceived entrepreneurial feasibility ($p=0.015$) and the perceived entrepreneurial desirability ($p=0.018$). All of these correlations were however weak, 0.268, 0.222 and 0.217 respectively.

The pleasantness of the experience of having an entrepreneurial friend was discovered to have a direct significant linear relationship with the propensity to act toward entrepreneurship (Sig. (2-tailed)=0.024) and the perceived feasibility of entrepreneurship ($p=0.026$). Both of these relationships were however weak with their respective correlation coefficients being 0.208 and 0.203.

The pleasantness of the experience of working for a SME was likewise found to correlate directly only with the propensity to act toward entrepreneurship ($p=0.041$) and the perceived entrepreneurial feasibility ($p=0.004$) and the strength of the correlations was similarly weak, 0.188 and 0.266, respectively.

Generally speaking, the results confirmed the positive connection between the pleasantness of the non-school entrepreneurial experience and the entrepreneurial intentions of the students. In all of the cases, the propensity to act toward entrepreneurship and the perceptions of entrepreneurial feasibility were positively influenced by the levels of pleasantness of all kinds of past non-school entrepreneurial experiences, yet the perceived desirability was only influenced by the levels of pleasantness of the experience of having entrepreneurial parents and the experience of having started an own business.

DISCUSSION

Figure 5 shows the theoretical model and the results of the tested hypothesis. The following sections discuss the results.

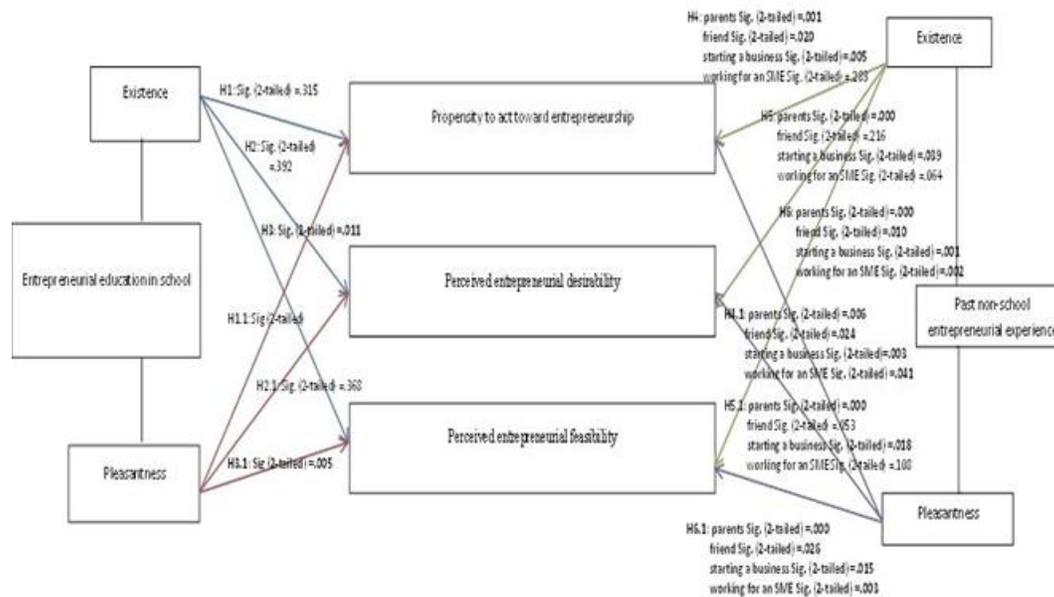


FIGURE 5
THEORETICAL MODEL AND HYPOTHESIS TESTING

H1, H2 and H3

It was discovered that the Entrepreneurship classes in the studied high-school affected only the students' perceptions of entrepreneurial feasibility but had no effect on their propensity to act toward entrepreneurship or on their perceptions of the desirability of an entrepreneurial career. That is to say, the Entrepreneurship classes were found to influence only one of the motivational precursors of the students' entrepreneurial intentions.

The current findings do not completely match the ones by Duijn, (2004); Souitaris, Zerbinati and Al-Laham (2007); Athayde (2009) and the European Commission (2012), all of whom confirmed the positive impact of the entrepreneurial education on the entrepreneurial intentions of the youth. Yet, none of the aforementioned studies used the EEM, i.e.; they simply did not have separate measures for propensity to act, perceived feasibility and perceived desirability so that no direct comparison can be made with the current research.

The research of Steenekamp, van der Merwe and Athayde (2011), which showed no connection between the entrepreneurial education in school and the development of entrepreneurial intentions in South African high-school students, did not use the EEM as well. In this particular case, the researchers further acknowledge as a weakness of their study that the "entrepreneurship education in the sample schools was largely infrequent and without depth or focus" (Steenekamp, van der Merwe & Athayde, 2011).

In a study using the same theoretical model as the current research, Peterman and Kennedy (2003) found that the participation in an extracurricular entrepreneurship programme increased the perceived entrepreneurial feasibility and desirability of the participating 11th and

12th graders. It should however be noted that whereas the programme that Peterman and Kennedy (2003) assessed was providing “practical opportunity for participants to develop and demonstrate key competencies and enterprise skills”, the Entrepreneurship classes in the Bulgarian vocational high-schools without economic and/or business profiles (like the one in this research) tend to be more theoretical (Stoyanova, 2009).

According to the national curriculum for the delivery of Entrepreneurship classes in Bulgarian vocational high-schools without economic and/or business profiles, upon the completion of the course, the students are expected to:

1. Know:

- The nature of entrepreneurship and the entrepreneurial process content;
- The role and tasks of SMEs;
- The essence of modern management, its role and tasks;
- The basic functions of management such as the components of the management process;
- The features of SMEs management.

2. Be able to:

- Analyze ideas for new businesses and highlight the winning idea;
- Prepare and interconnect the main sections of a business plan;
- Analyze practical examples for successful/unsuccessful company management;
- Highlight the differences in the requirements for the management of large companies, SMEs and their respective management methods (Stoyanova, 2009).

As evident, all of the aforelisted objectives are strictly theoretical, which in turn may not appeal to the students and thus may hinder the betterment of their entrepreneurial perceptions and intentions. Indeed, the study by Vitosha Research (2005) has shown that the students prefer practical to non-practical Entrepreneurship classes.

Put simply, the discrepancy in the expected and the obtained results for H1 and H2 is very likely to ensue from the nature of the offered classes in the studied high-school.

H1.1, H2.1 and H3.1

The current study expected that the pleasantness of the Entrepreneurship classes will have an impact on all three motivational precursors of entrepreneurship. It was however found that the level of pleasantness of the delivered Entrepreneurship classes in the studied high-school had a significant impact only on the perceived feasibility of an entrepreneurial career.

The study by Peterman and Kennedy (2003), which, as already established, comes the closest to the methodology and sample of the current research, did not include a measure for the pleasantness of the students' experience of participating in the studied entrepreneurship programme. In fact, to the best of our knowledge, not a single research using a measure for the pleasantness of the students' experience of studying Entrepreneurship – be it through formal or informal channels – currently exists. Hence, the findings of H1.1, H2.1 and H3.1 cannot be compared to past findings.

H4, H5 and H6

In line with past studies, the current research generally confirmed the positive link between the existence of past entrepreneurial experience and the formation entrepreneurial intentions.

More specifically, Athayde (2009) concluded that “from the range of demographic factors hypothesized to influence either a desire for self-employment or enterprise potential”, having a parent who owns a business was found to be a significant one. This conclusion suggests that having a self-employed parent should increase the youth’s perceived entrepreneurial desirability and the propensity to act toward entrepreneurship. Wang, Lu and Millington (2011) similarly concluded that: “family business background will contribute [...] to the formation of entrepreneurial intention, by positively impacting the perceived desirability and feasibility of starting a business.”

Yet, while the two studies discussed above have assessed only the impact of the family background on the formation of entrepreneurial intentions in students, the study by Peterman and Kennedy (2003) (like the current study) has looked into the impact of family background, friend background and the personal experience of owning/working for a SME. Still, Peterman and Kennedy (2003) did not provide any data on the influence of each particular type of past entrepreneurial experience and instead, calculated an overall variable – breath of past experience. The results of Peterman and Kennedy (2003) did not reveal any significant relationship between the breadth of past entrepreneurial experience and the perceived feasibility and desirability of the pursuit of an entrepreneurial career. The researchers explained their results with “the omission of propensity to act as a variable in the model tested” as well with the speculation that the participants’ age may have influenced the findings (Peterman & Kennedy, 2003).

The current study however first, looked into the influence of each particular type of past entrepreneurial experience and second, found links between the latter and all the three precursors of entrepreneurial intention. That is to say, the propensity to act was found to be positively influenced by the students’ experience of having self-employed parents, having a self-employed friend or being/having tried to be self-employed themselves; the perceived desirability was found to be positively influenced by the students’ experience of having self-employed parents or being/having tried to be self-employed themselves; the perceived feasibility was found to be positively influenced by the students’ experience of having self-employed parents, having a self-employed friend, being/having tried be self-employed themselves and working/having worked for a SME.

The discrepancy in the current findings and the findings of Peterman and Kennedy (2003) can be explained with the fact that the current study did not use an overall variable for the assessment of the effects of the presence/absence of past non-school entrepreneurial experience and instead, assessed separately the effects of each type of non-school entrepreneurial experience.

H4.1, H5.1 and H6.1

By and large, this research confirmed the positive relationship between the level of pleasantness of the non-school entrepreneurial experience of the students and the formation entrepreneurial intentions.

In their study, Peterman and Kennedy (2003) concluded that the more positive the past entrepreneurial experience of the students, the higher the latter’s perceived entrepreneurial

desirability. Peterman and Kennedy (2003) however found no connection between the pleasantness of the students' past entrepreneurial experience and their perceived entrepreneurial feasibility. It should however be noted that the researchers in question did not provide any data on the influence of the pleasantness of each particular type of past entrepreneurial experience and instead, calculated an overall variable – positiveness of past experience.

Just like the case in the previous point, the current study first, looked into the influence of the pleasantness of each particular type of past non-school entrepreneurial experience and second, found links between the latter and all the three precursors of entrepreneurial intention. That is to say, the more pleasant the experience of the participants with each of the four types of non-school entrepreneurial activities, the higher their propensity to act toward entrepreneurship and the higher their perceived entrepreneurial feasibility. Yet, only the level of pleasantness of having a self-employed parent and the level of pleasantness of being/having tried to be self-employed were found to influence the perceived entrepreneurial desirability.

The discrepancy in the current findings and the findings of Peterman and Kennedy (2003) can be explained with the fact that the current study did not use an overall variable for the assessment of the effects of the levels of pleasantness of the past non-school entrepreneurial experience of the students and instead, assessed separately the effects of the levels of pleasantness of each type of non-school entrepreneurial experience.

CONCLUSION

The purpose of this research was to investigate the effectiveness of the Entrepreneurship classes in Bulgarian secondary education and to provide empirical insight into the extent to which these classes succeed in motivating future entrepreneurs. No such research was carried out before, even though Entrepreneurship has been taught as a separate compulsory subject in some Bulgarian vocational high-schools since 2003 and since 2008, there has been a National Strategy for the incorporation of this subject into the school curricula of all grade levels. What is more, globally speaking, the insight into the effectiveness of the Entrepreneurship classes in school appears to be limited, i.e., the current research contributed not only to the state of the art in Bulgaria but also to the global academic literature on the effectiveness of the Entrepreneurship classes in secondary education.

The research found that the currently offered classes in a Bulgarian vocation high-school with a technical profile were only effective in bettering the perceived entrepreneurial feasibility of the students but had no impact on the other two precursors on entrepreneurial intent. What is more, it was found that the non-school entrepreneurial experience had a greater and more comprehensive impact on the participating students' propensity to act toward entrepreneurship, their perceived entrepreneurial feasibility and their perceived entrepreneurial desirability.

Educators and policy makers should take a note of the current study and try to improve the quality of the offered Entrepreneurship classes in Bulgarian vocation high-schools and more specifically, in the vocational high-schools without business/economic profiles. Indeed, the vocational high-schools without business/economic profiles tend to offer more theoretical classes, while the vocational high-schools with business/economic profiles appear to have a more practical Entrepreneurship curriculum (Junior Achievement Bulgaria 2011). Making the Entrepreneurship classes in vocational high-schools without business/economic profiles more practical may increase their appeal and ultimately their effectiveness. Yet, in view of the lack of academic studies on the topic of the effectiveness of the Entrepreneurship classes in the Bulgarian secondary education, the latter suggestion is merely a speculation.

Still, given the current economic instability in Europe at large, it is vital that Bulgaria develops the entrepreneurial potential of its youth to the maximum so that the number of entrepreneurs increases in the future. Nonetheless, entrepreneurship is nowadays viewed as a solution to some of the most pressing socio-economic problems (e.g. unemployment, poverty, etc.) (Chigunta, 2002; Mason, 2011; Kew et al., 2013; Kautonen et al., 2015; Ribeiro-Soriano, 2017; Yessoufou et al., 2018). This study showed that the current state of entrepreneurial education in Bulgaria is not as effective as desired, which thereby calls for urgent measures on behalf of the state.

The current research has several shortcomings regarding sampling and accuracy. First, the findings of the current research are not representative of the effectiveness of entrepreneurial education in all Bulgarian high-schools. The current study looked into only one vocational high-school with a technical profile and thus gained no insight into the effectiveness of Entrepreneurship classes in other technical and/or business/economic vocational high-schools. The study likewise did not investigate the state of entrepreneurial education in regular Bulgarian high-schools, where Entrepreneurship is not taught as a separate subject but is incorporated into other subjects.

Second, it should be noted that the students that were sampled for this research are being prepared for careers in the sector of manual labour. Their average grades fluctuate around 3-4, which are the second and the third lowest grades possible in the Bulgarian grading system. Almost none of these students will continue his education in university. All these points suggest that the studied samples are at large low-achievers, unambitious and that their very interest in business and enterprise is highly limited.

In view of this observation, it is not surprising that not all of the participating students took the survey seriously. For example, a few of the completed surveys had only one answer checked, e.g. always the first option, always the last option, etc. Hence, it is possible that the accuracy of some of the collected data has been compromised.

Given the lack of insight into the effectiveness of the National Strategy for Entrepreneurial Education in Bulgaria, more research on the topic should be carried out. A future research should compare the effectiveness of the entrepreneurial education in high-schools of the same type as well as across high-schools of different types (e.g. vocational high-schools with economic/business profile versus vocational high-schools with technical profile). This way, a more representative picture of the effectiveness of the Entrepreneurship classes in Bulgarian secondary education can be gained. If more studies on the topic are carried out and if, as suggested, the samples include more than one school at a time, this should statistically neutralise the offsetting effects of some inaccurately completed surveys.

It is also important to carry out a study on what the students expect from their Entrepreneurship classes, e.g. type of activities, assignments, objectives, etc. Nonetheless, if the students like their Entrepreneurship classes better, they should be more likely to appreciate the idea of entrepreneurship in general and this way, they should be more likely to improve their perceptions, attitudes and intentions toward entrepreneurship.

It is vital that educators and policy makers take measures to improve the quality of the delivered entrepreneurial education in Bulgaria because otherwise, the country will not reap the benefits that ensue from youth entrepreneurship.

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