

An investigation of social entrepreneurial intentions formation among South-East European postgraduate students

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Abstract

Purpose – The purpose of this paper is to investigate the formation of social entrepreneurial intentions (SEIs) in postgraduate students in the South-East European region.

Design/methodology/approach – A quantitative approach (self-administered online questionnaire) is used to gather data. The total number of the questionnaires that were collected and analyzed through SPSS statistical suite was 115 from which 111 were valid.

Findings – From the proposed five hypotheses set in the literature, only the personality trait theory was totally rejected because it failed to predict social and commercial entrepreneurial intentions (EIs). The remaining hypotheses were found to be valid. The study's key finding is that the chosen theory (Ajzen's theory of planned behavior (TPB)), is able to predict both kinds of intentions. An alarming key finding is that tensions in mission focus seem to be present in the early shaped intentions of potential social entrepreneurs.

Research limitations/implications – Research findings impose that major educational and policy efforts are needed to promote the theme of social entrepreneurship (SE). The results indicate that most of the postgraduates have not yet fully understood the mindset of SE as they were confused about the synergy of the goals (inherent in their social vs profit intentions).

Originality/value – This research contributes in three major ways to the literature. First, it shows that SEIs seem to be shaped similarly to EIs; determined mostly by two of the motivational factors of the TPB (personal attitude and perceived behavioral control). Second, it shows which factors seem to affect both constructs and third, it adds to the literature by showing that tensions in mission focus are evident early on in the intentions' formation process, underlying the necessity of immediate educational and legislative precautions.

Keywords Postgraduates, Tensions, Entrepreneurial intentions, Social entrepreneurial intentions, South-East European region

Paper type Research paper

Introduction

Social entrepreneurship (SE) is a unique kind of entrepreneurial endeavor that combines two distinct logics in its mission, that is, social impact and financial gains (Miller *et al.*, 2012). The social enterprise differs from a commercial enterprise in that it concentrates all of its resources to meet its social goal while it differs from a non-for-profit business in that it actually has a market-based business model which makes it independent from grants and donors (and hence it has increased chances to achieve sustainability in the long run) (Datta and Gailey, 2012; Miller *et al.*, 2012). To make things simple, the difference between commercial entrepreneurship (CE) and SE is based on different intended outcomes; the former form of entrepreneurship embraces



the prioritization of profit for economic wealth creation whereas the latter embraces social wealth creation (Mair and Marti, 2006).

Evidence points to the fact that the outspread of SE subsidizes the role of the state in providing social welfare policies which would rather prove costly for governments to design and retain (Souitaris *et al.*, 2007). Simultaneously, their economic role could be regarded appreciable. Social enterprises could be making a fortune by selling to the base of the pyramid people (nearly four billion people earning less than two dollars a day) which represent a traditionally neglected customer base (Desa and Koch, 2014; Prahalad, 2010, 2012). More than that, they are reported to positively (in economic terms) impact the capitalistic system driving it toward “shared value” principles as traditional enterprises gradually alter the way they ought to make profit (by considering their goals’ social impact too) (Driver, 2012; Kramer, 2011; Cornelius *et al.*, 2008; Guth, 2008).

Because of SE’s critically acclaimed social and economic role, both policy makers and the academic world are trying to find ways to elevate its presence (Teasdale *et al.*, 2013). According to recent studies, the intentions of SE agents –social entrepreneurs – would help build a clearer understanding of SE, since they are the ones who in the first place embrace such an activity (Ayob *et al.*, 2013; Prieto, 2011). Multi-level analyses of social entrepreneurial intentions (SEIs) are much needed to unveil the hidden sides of how the concept is perceived by those who are interested in pursuing or are choosing to reject this career (Sandhu *et al.*, 2011). This kind of feedback would allow the educational institutions and policy makers to design their appropriate corresponding mechanism that would facilitate SE proliferation (Douglas, 2013).

In this sense, the current research aims to fill the aforementioned observed gap and contribute by providing empirical data collected from South-East European postgraduate students based on their perceptions of the factors that influence social and entrepreneurial intentions (EIs) as well as their incentives to follow each of the two careers. Specifically, this paper seeks to answer if SEIs are shaped in the same way as EIs by assessing the extent to which Ajzen’s (1991) theory of planned behavior (TPB) could be applied to SE. Moreover, it aims to probe the factors that directly correlate to SEIs and whether they are the same with those that directly correlate to EIs. It also targets to investigate if there are juxtapositions in managing focus (rising from the two seemingly competing missions that SE incorporates), evident in the formation of SEIs as scholars have implied before (Smith *et al.*, 2012).

Results showed that this theory is not just merely able to predict EIs but also vigorously able to predict SEIs in the study’s sample. This is one of the novel contributions of this paper which reflects that EIs and SEIs may actually be similar in the way they are shaped. The other novel contribution is that in the research sample the two missions (social adhesion while striving for financial results) that SE encompasses, are comprehended as contradicting by potential social entrepreneurs.

Theoretical framework and research hypotheses

SE is a controversial concept which still lacks a clear and globally accepted definition and understanding (Grimes *et al.*, 2013). The present study adopts Zahra *et al.* (2009) SE definition, which is based on gathered definitional typologies of the most cited academic journal papers published before theirs. More specifically, they define that: “Social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner” (Zahra *et al.*, 2009, p. 522).

Moreover, (Social) entrepreneurial intentions ((S)EIs) are defined as the willingness to establish a new (social) enterprise in the near future (Prieto, 2011).

Various theories and models have been developed for explaining and predicting – social – entrepreneurship across time since a controversy can be observed within the entrepreneurial and social psychological literature in regard to what attribute(s) or set of characteristics determine who displays more propensity for business creation. The first theory that will be used in the present study's sample is TPB for which nearly all scholars agree that is the most influential of social psychological theories in predicting human behavior (Liñán and Chen, 2009).

Conforming to Ajzen (1991), intentions capture the willingness of a person to display a certain behavior and those (i.e. intentions) in turn are influenced by other motivational variables which, namely, are:

- (1) personal attitudes (PA) – toward the act/behavior – refer to the degree to which individuals believe a given behavior is attractive or not attractive (e.g. an entrepreneurial career) (Jimmieson *et al.*, 2008);
- (2) subjective norm (SN), refers to the influence that the social environment exerts upon the individuals' intended behavior (e.g. role models); and
- (3) perceived behavioral control (PBC), refers to the degree to which individuals think they are capable of performing a task or control their behavior.

TPB has been applied as a framework to plenty of studies investigating the formation of EIs and it is widely acclaimed by researchers as an adequate theory for predicting entrepreneurial behavior (Maes *et al.*, 2014). Since TPB has been proven applicable to predict EIs, then it would be interesting to investigate if it does so with SEIs in a particular region. In this manner, a study could examine the extent to which SEIs and EIs share similarities on how they are shaped in South-East European postgraduate students.

As a consequence, the following hypothesis has been formed:

H1. TPB is able to predict EIs as well as SEIs.

Next, another theory in determining the entrepreneur profile is the personality trait theory (PTT). As scholars attempt to distinguish entrepreneurs from non-entrepreneurs, several personality traits have been linked to EIs (Gruber, 2010). Historically, these have been predominantly identified as preference for autonomy and independence (Raposo *et al.*, 2008b), need for achievement (Wijbenga and van Witteloostuijn, 2007), leadership and communication skills (locus of control) – type of thinking (Raposo *et al.*, 2008a), creativity and problem solving (Zampetakis, 2008), propensity to risk (Caliendo *et al.*, 2009), feelings of benevolence (Urbig *et al.*, 2012; Hilbig and Zettler, 2009; Stueber, 2008).

Roy *et al.* (2014) report that most of these entrepreneurial personality traits are linked with social entrepreneur's identity too. Nga and Shamuganathan (2010) report that personality characteristics exert an influence on SEIs. Although Arend (2013) have disputed the magnitude of feelings of benevolence (such as compassion and/or empathy) in affecting SEIs in favor of the "individual opportunity nexus," Ayob *et al.* (2013) have referred to those feelings as powerful motivators for social enterprise creation.

Except from the PPT, (S)EIs have also been associated with socio-demographic characteristics such as gender (Minniti and Nardone, 2007), marital status and age (Sandhu *et al.*, 2011), and education (Kuckertz and Wagner, 2010). Further, gender

(Estrin *et al.*, 2013), work experience and education (Shumate *et al.*, 2014) are three of the most frequently mentioned variables which have been proved to affect SEIs.

Hence by analyzing the abovementioned two competing and complementary theories (PTT and the demographic approach) the following hypotheses can be extracted:

H2. Personality traits determine who demonstrates more inclination for – social – business creation.

H3. Demographic characteristics directly affect – social – entrepreneurial intentions.

Houser and Xiao (2010) argue that in order to find accurate dispositions for entrepreneurial behavior, one should look at situational influences (e.g. culture and environmental conditions and the political environment and economic development) or use them complementary to the models and theories of EI to better comprehend entrepreneurial behavior (Liñán *et al.*, 2011). Defourny and Nyssens (2010) have suggested that culture might influence SEIs as it does to EIs but empirical studies are missing. For this reason, Zahra *et al.* (2014) have urged other scholars to include this as a measure in future SE studies.

The political and economic environment is a supplementary critical contextual factor which affects (S)EIs. A country's elected political system is likely to institutionalize legislations and taxation policies which may or may not abet the (social) entrepreneurial incentives not only of its own people but also of foreign direct investors (Gupta *et al.*, 2014). A country's economic progress is linked to the political environment due to the fact that any public policy undertaken affects the investment decisions made within the economy. In this sense, a favored entrepreneurial legislative and/or public taxed economic environment is likely to boost entrepreneurial activity and vice versa (Bowen and De Clercq, 2008).

From the above the following hypothesis can be shaped:

H4. Situational/environmental or contextual factors directly influence the SEIs of people.

Lastly, SEIs may prove to be problematic since the venture creation purpose varies and different types of tensions are likely to occur (Gonin *et al.*, 2013). It turns out that the dual identity (social adhesion combined with the urge to bring financial results) of SE confuses potential social entrepreneurs who are faced with multiple and contradicting mind-sets, norms, identities, goals and values (Gonin *et al.*, 2013), as well as ethical dilemmas (Dees, 2012). This tendency for mission drift may be evident even precociously in the formation of SEIs. Indeed, Smith *et al.* (2012) have implied that these tensions are embedded early on in the decision process concerning the start-up of a social enterprise but they eventually manifest when the social venture is established.

By analyzing this possible effect, the subsequent hypothesis is framed:

H5. Tensions in mission focus are evident early on in the SEIs' formation process.

Conclusively, several scholars such as Germak and Robinson (2013) state that SE field requires more empirical studies to better comprehend its antecedents. Ayob *et al.* (2013) and Prieto (2011) have stated that intentions and their predecessors are still vague and under researched in the SE domain. Thus, studying SEIs would offer an insight on the profile of those who intent to become social entrepreneurs and would contribute into building a systematic approach on the identity of those people (Van Ryzin *et al.*, 2009). Moreover, there is a lack of quantitative studies in the SE area as most of the papers are focused on case studies, anecdotal cases and on qualitative type of researches (Shumate *et al.*, 2014; Ayob *et al.*, 2013).

There is a necessity to test SE and (S)EIs in different contexts (Fayolle *et al.*, 2014) as SE legitimacy and conception varies from region to region (Yiu *et al.*, 2014). It appears that differences between SEIs and EIs in this region are yet to be discovered. This study aims to cover that gap.

Research methodology

The research questionnaire was adopted from Liñán *et al.* (2011) and Liñán and Chen (2009) who created an EI Questionnaire – designed with TPB in mind – to develop a cross-cultural application to measure EIs. Their questionnaire was adopted by similar kind of studies subsequently (e.g. do Paço *et al.*, 2011). Additional questions were added to capture SEIs using their EIs question's underscored logic. A cover letter was used which included a definitive and understandable definition using a case as a definitional example of SE. In specific what was presented was the case of Bangladeshi Grameen Bank which revolutionize the finance sector by introducing a new concept – microcredit (a model aiming to lend money to the poor and especially women) (Martin and Osberg, 2007; Mair and Marti, 2006). The difference of a social enterprise with that of commercial and non-for-profit businesses was stated. All these portray efforts that the authors took in order to help responders avoid misconceptions.

The consolidation of the questionnaire's queries to measure responders' thoughts and opinions was made possible through the use of Likert's (1932) scale. In this paper, a seven-point Likert scale was adopted. Douglas (2013), Liñán *et al.* (2011) and Liñán and Chen (2009) used a seven-point Likert scale in their study, examining the formation of EIs and the latter two studies had students as their targeted samples. Longer scales have the advantage of more accurately capturing the exact level of the responders' belief.

The research population was built on postgraduates from two colleges located in Greece which were affiliated institutions of British-based universities (i.e. University of Sheffield, University of London, University of Central Lancashire and University of Northampton). These colleges had students from across the Balkan region as well as Cyprus and their taught program included various different disciplines. Postgraduates' e-mails were acquired after a request of the authors to the colleges' correspondence departments.

The authors conducted an online survey using Google Forms. Responders received an e-mail with the web link which directed them to password protected Google Forms questionnaire. As said above, the study's population consisted of postgraduate students of different disciplines. Traditionally, students studying business-related degrees are considered one step before entering into self-employment (Shinnar *et al.*, 2012), which is the primary reason why they are used as sample population in researches investigating EIs (Liñán *et al.*, 2011). Hisrich *et al.* (2008) have stated that students with a degree in their hands tend to have higher EIs. Shinnar *et al.* (2012) have stated that targeting students (Maes *et al.*, 2014 comment: particularly postgraduates) as the research sample is appropriate for studying EIs because as long as students finish their studies they are instantly faced with the option of choosing a career. In consonance with Douglas (2013), master-level students are more likely to be older (and thus more mature) compared to undergraduate ones and they have higher possibilities of having acquired working experience, an attribute that seems to affect both EIs and SEIs (Ayob *et al.*, 2013). Past researches have examined SEIs among undergraduate students' perspective only (Nga and Shamuganathan, 2010) which further strengthens the need to select postgraduates as the present research population sample.

Participants who took part in the web-based survey were studying in university at a postgraduate level in South-East Europe. For this reason, they were carefully selected by the authors who sent each one an e-mail containing an invitation to participate in the survey.

Pilot testing was used to identify any questionnaire issues. Pre-test was run to ten postgraduates by administering the questionnaire. The instrument was found by all the postgraduates to be understandable; only syntax-related suggestions were made by the participants who were immediately addressed. Overall, 115 (out of 700 questionnaires – response rate 16.4 percent) South-East European postgraduates participated in the survey and from that number 111 questionnaires were regarded valid.

Data analysis and results

Responders aggregate profile

The vast majority of the students declared they were inexperienced in work, while a little over 20 percent of them had acquired experience through self-employment. However, it is worth pointing out that nearly 60 percent of the sample had sincerely considered or had envisioned pursuing such a career at a later stage of their lives. In comparison, a roughly 30 percent had seriously considered becoming social entrepreneurs. Regarding (social) entrepreneurial education (EE); half of the postgraduates (a little over 55 percent) had received entrepreneurial-related courses while approximately 20 percent of the responders answered they had received modules that could be considered SE education.

Construct validity, reliability analysis and demographics. In this research, a confirmatory factor analysis was conducted to assess the validity of research constructs utilizing to the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity which are the two measures that are recommended for measuring construct validity (Hair *et al.*, 1998) while Straub (1989) points out that Cronbach's α reliability test can be used to assess internal consistency of measurements. Also, the total variance explained (TVE) score is also used to measure the percentage of the common variance that is explained by all factors. Table I presents the results of the confirmatory factor and reliability analyses. As can be noticed, KMO is above the threshold of 0.5 (Hair *et al.*, 1998), while Cronbach's α is also above the threshold of 0.6 (Malhotra, 1999) for all the factors. Similarly, the TVE score for all factors is satisfactory, being above 0.5 (Straub, 1989). Also, for all the factors, the Bartlett's test of sphericity score is acceptable (significance below the 0.05 threshold). Finally, factor loadings for all the items are within acceptable levels (above 0.5 threshold; Hair *et al.*, 1998). Each of the motivational factors (PA, SN, PBC) that make up Ajzen's (1991) TPB was assessed for CE and for SE separately. Further, Table II presents the study's demographics.

Demographic variables correlations to (S)EIs

Age correlation to (S)EIs. To find correlations between age and (S)EIs, the former was categorized into two groups. Participants below the age of 25 made up group 1 and those above the age of 25 were labeled as group 2. Overall most (59.5 percent, $n = 66$) were from the age of 25 and below. Statistically significant differences ($t(109) = -3.07$, $p = 0.00$) between the two groups were found for EIs only. In detail, the latter group which was composed by more mature postgraduates proved to be more entrepreneurially inclined than the other with younger students.

Factor	Statistics	Item loadings	Cronbach's α
<i>Commercial entrepreneurship</i>			
TPB			
Personal attitude	KMO = 0.887 Bartlett's sig. = 0.000 TVE = 81.669	B1 = 0.773 B2 = 0.948 B3 = 0.944 B4 = 0.930 B5 = 0.913	0.942
Subjective norm	KMO = 0.669 Bartlett's sig. = 0.000 TVE = 71.934	C1 = 0.770 C2 = 0.893 C3 = 0.876	0.800
Perceived behavioral control	KMO = 0.876 Bartlett's sig. = 0.000 TVE = 67.443	D1 = 0.720 D2 = 0.888 D3 = 0.798 D4 = 0.836 D5 = 0.863 D6 = 0.812	0.902
Personality trait theory factors	KMO = 0.856 Bartlett's sig. = 0.000 TVE = 57.902	F1 = 0.851 F2 = 0.814 F3 = 0.728 F4 = 0.468 F5 = 0.468 F6 = 0.798	0.820
Entrepreneurial intention	KMO = 0.940 Bartlett's sig. = 0.000 TVE = 86.449	E1 = 0.887 E2 = 0.910 E3 = 0.956 E4 = 0.948 E5 = 0.942 E6 = 0.934	0.969
<i>Social entrepreneurship</i>			
TPB			
Personal attitude	KMO = 0.896 Bartlett's sig. = 0.000 TVE = 81.096	I1 = 0.804 I2 = 0.940 I3 = 0.919 I4 = 0.921 I5 = 0.911	0.941
Subjective norm	KMO = 0.681 Bartlett's sig. = 0.000 TVE = 76.210	J1 = 0.803 J2 = 0.896 J3 = 0.916	0.834
Perceived behavioral control	KMO = 0.872 Bartlett's sig. = 0.000 TVE = 80.238	K1 = 0.892 K2 = 0.919 K3 = 0.929 K4 = 0.898 K5 = 0.895 K6 = 0.859	0.950
Personality trait theory factors	KMO = 0.756 Bartlett's sig. = 0.000 TVE = 53.394	N1 = 0.804 N2 = 0.797 N3 = 0.672 N4 = 0.560 N5 = 0.807 N6 = 0.712	0.820

Table I.
Construct validity
and reliability
analysis

(continued)

Table I.

Factor	Statistics	Item loadings	Cronbach's α
Social entrepreneurial intention	KMO = 0.913 Bartlett's sig. = 0.000 TVE = 88.540	L1 = 0.937 L2 = 0.947 L3 = 0.950 L4 = 0.964 L5 = 0.916 L6 = 0.932	0.974
Contextual attributes that influence SEI	KMO = 0.792 Bartlett's sig. = 0.000 TVE = 66.656	M1 = 0.762 M2 = 0.877 M3 = 0.868 M4 = 0.750	0.829
SEA mission focus	KMO = 0.779 Bartlett's sig. = 0.000 TVE = 65.931	N1 = 0.686 N2 = 0.858 N3 = 0.874 N4 = 0.816	0.820

Responder characteristics	Statistics (%)	Mean	SD
<i>Age</i>			
< 25	59.5	26.6	5.44
26-30	28.8		
> 30	11.7		
<i>Gender</i>			
Male	46.8		
Female	53.2		
<i>Nationality</i>			
Greek	63.1		
Cypriot	26.1		
Bulgarian	4.5		
Serbian	2.7		
Kosovar	2.7		
Albanian	0.9		
<i>Faculty</i>			
Business and management	26.1		
Computer science	14.4		
Polytechnic	13.5		
Social sciences	8.1		
Economics	7.2		
English studies	6.3		
Other studies	24.4		
<i>Year of study</i>			
First	12.6		
Final	87.4		

Note: Sample, $n = 111$ **Table II.**
Demographics

Gender correlation to (S)EIs

This study has found that males had statistically significant EIs compared to that of females ($t(109) = 2.22, p = 0.28$). In particular, males had between “neutral” and “to a fairly great extent” EIs while females had “somewhat low” to “neutral” EIs. Regarding SEIs, the differences between the two groups were statistically insignificant ($t(109) = 0.263, p = 0.793$).

Nationality correlation to (S)EIs

Taking under consideration the fact that Greeks and Cypriots composed nearly 90 percent of the surveyed sample, independent sample t -test was preferred to one-way ANOVA. There were no statistically significant differences in Greeks and Cypriots scores for EIs ($t(97) = 0.61, p = 0.54$) and SEIs ($t(97) = -1.5, p = 0.13$).

Correlation of other demographic variables to (S)EIs

To make meaningful comparisons, five (business and management, computer science, economics, polytechnic, and social sciences) out of 13 groups will be commented based on the fact that they concentrate 61 percent ($n = 60$) of the total study’s sample. Significant ($F(12, 98) = 2.07, p = 0.026$) differences were detected by assessing the ANOVA between faculty groups in relation to EIs in comparison to the differences of the faculty groups for SEIs which were marked as non-significant ($F(12, 98) = 1.43, p = 0.164$).

The ANOVA results have shown that those responders who were doing their masters in economics had greater entrepreneurial and SEIs than those in other faculties. However, the groups were not homogenous. The greatest percentage of the sample was in a business and management-related faculty. This cohort had almost “to a fairly great extent” EIs while their average SEIs were much lower.

Postgraduates who were doing computer science degrees had on average neutral EIs and somewhat low SEIs. Postgraduates in social sciences had much lower entrepreneurial and SEIs than those studying in the abovementioned faculties but a little higher (with a lower standard deviation) than Polytechnic students.

Monthly income correlation to (S)EIs

Responder’s household income groups have been found to have no statistically significant difference between each other either for EIs ($F(6, 104) = 1.11, p = 0.35$) or SEIs ($F(6, 104) = 1.26, p = 0.28$).

Parents’ educational background correlation to responders (S)EIs

For both fathers’ and mothers’ educational background, statistically insignificant correlations have been found among groups of educational levels (for fathers, $F(5, 105) = 0.34, p = 0.88$ and for mothers, $F(5, 105) = 0.56, p = 0.73$).

(Social) entrepreneurial knowledge and experience

Work experience correlation to EIs. The outcome of the t -test that was applied between the group variable (work experience) and EIs has shown that there was a statistically significant difference ($t(109) = 2.42, p = 0.01$, two-tailed) between responders who had been self-employed and those who had not. In detail, students with previous entrepreneurial experience had almost “to a fairly great extent” intentions to create an enterprise in contrast to the inexperienced students who had somewhat mixed EIs. Notwithstanding the increased EIs of postgraduates with previous experience,

compared to the other cohort of students their SEIs differences were statistically insignificant ($t(109) = -0.69$, $p = 0.48$, two-tailed) and in general terms their SEIs were somewhat low.

(Social) entrepreneurial education correlation to (S)EIs

Statistically significant results have been found between groups (one group is those who have received related education and another group for those who have not) with regards to EIs ($t(109) = 2.12$, $p = 0.36$, two-tailed) and SEIs ($t(109) = 4.27$, $p = 0.00$, two-tailed). Overall, postgraduates who declared that they had attended some entrepreneurial course or module had greater EIs than those who had not. Moreover, those who had received EE had higher SEIs than those who never received any entrepreneurial course or module. On the other hand, postgraduates who had received social entrepreneurial education (SEE) had much greater SEIs than those who had not while they had also much greater EIs than the social entrepreneurial uneducated group.

Knowing an (social) entrepreneur correlation to (S)EIs

Knowing an entrepreneur seemed to greatly influence EIs. Statistically significant differences have been found between those who knew and those who did not ($t(109) = 2.30$, $p = 0.02$). The 77 percent of the sample who claimed that they knew an entrepreneur had mixed EIs but their scale marking differed from the other group almost for a level. By way of comparison, statistically insignificant differences ($t(109) = 0.19$, $p = 0.84$) have been found for those who knew a commercial entrepreneur with regard to their SEIs. Reversely, the results have shown that survey participants who claimed that they knew a social entrepreneur had statistically insignificant EIs ($t(109) = 1.74$, $p = 0.08$) but statistically significant ($t(109) = 2.24$, $p = 0.02$) SEIs differences with those who did not know a social entrepreneur. The former cohort had somewhat neutral SEIs while the latter had somewhat low.

Perceived contextual influence on SEIs

The context (which is in line with literature, includes sociocultural, economic and political impacts to SEIs) influence to their SE intentions was perceived by participants as average. Below, info is presented only about the positive perception (in the same way it was done in some other parts above – e.g. in education) postgraduates had for context areas which were asked whether they believed that positively influenced their SEIs. In this way, answers ranging from “somewhat agree” to “strongly agree” were added up in each case. From the total 111 participants, over the half (53.1 percent, $n = 59$) agreed that culture positively influenced their SEIs while fewer than half (46.8 percent, $n = 52$) agreed that environmental conditions affected their SEIs. Regarding the perceived role of the political environment, nearly 41 percent ($n = 46$) believed that it influenced their SEIs while the country’s economic development was seen by almost 60 percent ($n = 68$) to positively influence their SEIs.

Predictors of ((S)EIs) using multiple regression approach

Testing the TPB for entrepreneurship

At this point, the extent to which Ajzen’s (1991) TPB can predict EIs will be examined using the multiple regression approach (Table III) to assess if the theory will prove its efficiency for another time in this particular domain (SE field).

The motivational factors (PA toward the behavior, SN and PBC) which Ajzen (1991) argued that form the (entrepreneurial) intentions are all together highly significant in

predicting EIs in the surveyed sample. The multiple regression scores has shown that the model as a whole (i.e. the group of variables) is statistically significant ($F(3, 107) = 109, p = 0.00$ and Durbin Watson = 1.968). Moreover, the adjusted R^2 score revealed that the model is able to justify 74.7 percent of the variability of the response data collected in the EIs scales. From all three variables the highest impact on EIs was observed to be from PA which was statistically significant ($p < 0.05$). In the case of PA, if it was increased by one unit then EIs would also increase by 0.77 times. PBC was proved to be also statistically significant. The lowest of the factors' EIs predictability belonged to SN which is not statistically significant.

Testing the TPB for SE

The TPB will be examined again utilizing the multiple regression approach (Table IV) but for SE to assess whether it is a strong predictor of SEIs too apart from EIs (Table IV). Ajzen's (1991) TPB (applied to SE) efficiency in predicting SEIs was vigorously proved. ANOVA test has shown that the model is statistically significant ($F(3, 107) = 151, p = 0.00$ and Durbin Watson = 1.927). R^2 was even higher than the percentage TPB motivational factors got for commercial EIs. The SEIs predictability reached 80.4 percent. PA and PBC were statistically significant ($p < 0.05$) in contrast to SN which was insignificant. From the theory's motivational factor, PA had the biggest impact on SEIs and PBC followed with an equally high impact while SN has been found to exert a negative influence on SEIs implying that there is a reversed relationship between the two. In other words, the relationship between SN and SEIs is inversely proportional in that when the one is decreased the other is increased.

Testing the predictability of the PTT over ((S)EIs) (linear regression analysis). From the attributes that are frequently associated with the PTT (i.e. creativity, problem solving, leadership and communication skills, feelings of benevolence, type of thinking and vague stated, personality traits) that were reported in the literature to influence (S)EIs, it is remarkable that none were found to predict either type of career intentions.

Table III.
Multiple regression model summary for TPB motivational factors as predictors of EIs

Predictors	B	β	Sig.	Adjusted R^2	DW
Constant	-1.908		0.000	74.7%	1.968
Personal attitude	0.779	0.596*	0.000		
Subjective norm	0.059	0.036	0.492		
Perceived behavioral control	0.470	0.337*	0.000		

Notes: Predictors: (constant), perceived behavioral control, subjective norm, personal attitude; dependent variable: entrepreneurship intention. * $p < 0.05$

Table IV.
Multiple regression model summary for TPB motivational factors as predictors of social entrepreneurial intentions (S)EI

Predictors	B	β	Sig.	Adjusted R^2	DW
Constant	-1.090		0.000	80.4%	1.927
Personal attitude	0.581	0.514*	0.000		
Subjective norm	-0.033	-0.025	0.618		
Perceived behavioral control	0.565	0.486*	0.000		

Notes: Predictors: (constant), perceived behavioral control, subjective norm, personal attitude; dependent variable: social entrepreneurship intention. * $p < 0.05$

The model summary and the ANOVA test confirmed that these variables are statistically insignificant for EIs (adjusted $R^2 = 0.10$, $F(12, 98) = 2.57$, $p = 0.00$) as well as for SEIs (adjusted $R^2 = 0.11$, $F(12, 98) = 1.68$, $p = 0.08$) which mean that the regression equation is not able to explain variability in the response data collected for (S)EIs (Tables V and VI).

Juxtapositions in mission focus. On account of the sample had to be separated to answer four objectives, selective cases was used to examine if juxtapositions in mission focus are evident to those postgraduate students who had considered becoming social entrepreneurs. After selecting the group which had recognized that they may have (or had – at least in the past –) SEIs (31.5 percent of the total sample of 111 responders, $n = 35$), frequencies statistics were applied to test the degree to which they believed that dual missions (social adherence and generation of profit) contradict one another. The results have shown that potential social entrepreneurs seemed quite confused. The majority (57.1 percent, $n = 20$) of them thought that these missions could create problems.

In addition, those 35 responders (who answered that they have considered becoming social entrepreneurs) were asked to rank how their tensions in mission focus could influence their social enterprise in several factors (i.e. in performing, in organizing, in belonging and in learning). The rankings results have shown that they overwhelmingly believed that great tensions would manifest “in performing” and “in belonging.” Characteristically, all of them seemed to admit that they will be affected at least “to a moderate extent” (no one voted below that level) in these two areas while 90 percent

Predictors	<i>B</i>	β	Sig.	Adjusted R^2	DW
Constant	0.934		0.000	10%	1.850
Creativity	-0.183	-0.093	0.525		
Problem solving	0.283	0.136	0.319		
Leadership and communication skills	0.031	0.014	0.908		
Feelings of benevolence	0.259	0.205**	0.052		
Type of thinking	-0.217	-0.122	0.385		
Personality traits	0.0374	0.213*	0.101		

Notes: Predictors: (constant), personality traits, empathy or compassion, leadership and communication skills, problem solving, type of thinking, creativity; dependent variable: entrepreneurship intention. * $p < 0.10$; ** $p < 0.05$

Table V.
Multiple regression
model summary for
personality trait
theory over
entrepreneurial
intentions

Predictors	<i>B</i>	β	Sig.	Adjusted R^2	DW
Constant	0.550		0.655	11%	1.879
Creativity	-0.372	-0.246	0.069*		
Problem solving	0.376	0.271	0.060*		
Leadership and communication skills	-0.139	-0.098	0.406		
Feelings of benevolence	0.186	0.117	0.272		
Type of thinking	0.174	0.108	0.446		
Personality traits	0.220	0.131	0.329		

Notes: Predictors: (constant), personality traits, empathy or compassion, leadership and communication skills, problem solving, type of thinking, creativity; dependent variable: social entrepreneurship intention. * $p < 0.10$

Table VI.
Multiple regression
model summary for
personality trait
theory over social
entrepreneurial
intentions (S)EI

($n = 18$) of them ranked that there would be great to extremely great negative effects in both areas. In the other two areas (organizing and learning) the vast majority (around 80 percent or 17 participants) perceived that adverse consequences should be expected.

When frequency statistics were applied to those responders (68.5 percent of the whole sample, $n = 76$) who had never seriously considered becoming social entrepreneurs it was observed that over half of them thought that problems could emerge when combining these missions (51.3 percent, $n = 39$) while the rest were confident that no tense would be created.

Summary of research findings

Results show that from the hypotheses set in the literature some were accepted whereas others were rejected indicating that some theories were better in explaining (social) entrepreneurial inclination from others in the study’s sample. Precisely, results signify that *H1* (TPB) is supported since two of the three factors that formulate the theory (PA and PBC) were found to predict both EIs and SEIs. Next, *H2* (PTT) was rejected because based on the findings personality traits could neither predict EIs nor SEIs. The demographic approach was proved to directly correlate with EIs whereas for SE only two of its attributes were found to correlate to SEIs, thus *H3* was accepted for EIs but for SEIs was only partially accepted. *H4* which concerned theory of contextual effect was partially accepted too since again only some attributes were found to directly correlate to SEIs. Lastly, *H5* was supported as students that had SEIs believed that they would face some sorts of administrative dilemmas when trying to combine SE distinct logics.

Table VII summarized research findings regarding the correlations to EIs and SEIs.

List of variables the research tested to find correlation to	EIs	SEIs
Theory of planned behavior	✓	✓
Personal attitude	✓	✓
Perceived behavioral control	✓	✓
Subjective norm	X	X
Personality trait theory	X	X
Creativity	X	X
Problem solving	X	X
Leadership and communication skills	X	X
Feelings of benevolence (empathy or compassion)	X	X
Type of thinking	X	X
Personality traits	X	X
The demographic approach	✓	✓/X
Age	✓	X
Gender	✓	X
Education	✓	✓
Faculty	✓	X
Work experience	✓	X
Knowledge (of the – social – entrepreneurial figure)	✓	✓
Situational/contextual theory	–	✓/X
Social-cultural influence	–	✓ for cultural
Political-economic influence	–	✓ for economic
Evidence of juxtapositions in mission focus	–	✓

Table VII.
Summarized
research findings

Note: The significance for all “✓” is $**p < 0.05$ and for “X” the correlation is statistically insignificant

Discussion

TPB

Before the analysis, it should be highlighted that many previous studies have used multiple linear regression and factor analyses for measuring EIs (e.g. Schwarz *et al.*, 2009; Kolvereid and Isaksen, 2006), thus it is important that this kind of method was preferred because it adds to the trustworthiness of the results and allows for better comparisons. The research has found robust results with regard to Ajzen's TPB. More specifically, the results are in line with many previous scholars (Maes *et al.*, 2014; Miller *et al.*, 2012) who advocated that the TPB is a capable model for explaining EIs. Hence, they contrast Kolvereid and Isaksen (2006) who has found no support for the theory and proves that it is actually common to expect that TPB would be able to predict EIs. Additionally, the TPB has been vigorously (and with a higher predictability power) proven in the SE domain too which imposes that SEIs could share many similarities with EIs on how they are formed. SNs (close family, friends, colleagues and mates) had very low (and the least from the other TPB motivational factors) influence over both the entrepreneurial and SEIs which verifies the doubts of Liñán and Chen (2009) and Liñán and Santos (2007) who have disputed its efficiency in explaining EIs. Based on results, it can be argued that social disapproval leads to greater SEIs.

Demographic attributes that influence (S)EIs

Age. Liñán *et al.* (2011) have supported that age is a factor that seems to influence EIs while there is only one report for the impact of age on SEIs (GEM, 2009). The results have shown significant differences between those who were above 25 and those below that age for EIs only (differences between the two age groups for SEIs were insignificant) in contrast to Sandhu *et al.* (2011) who could not find any relation between EIs and age. The results did not support Schwarz *et al.* (2009) who found an inverse relationship between age and EIs but agreed with Liñán *et al.* (2011) and Levesque and Minniti (2006), who have linked more mature students with higher entrepreneurial propensity.

Gender. Males had statistically significant EIs compared to females, which is consistent with plenty of previous studies reporting that this inversely proportional relationship is the norm (Douglas, 2013) contradicting de la Cruz Sánchez-Escobedo *et al.* (2011) and Zampetakis (2008) divergent findings and strengthening the fact that these researches' outcome could be the exception to the rule. The findings do not support that gender social entrepreneur profile is that of a female as some academics have asserted (Estrin *et al.*, 2013) but they have agreed with GEM's (2009) report in which has been underlined that in SE, gender differences are smaller in comparison to CE (as no significant statistical difference has been found in the research sample).

Education. The education's positively mediating role to (S)EIs (Kuckertz and Wagner, 2010) has been proven as those South-East European postgraduates who had received (S)EE had greater (S)EIs than those who did not. However, although most of the postgraduates were in the last year of their studies none of their courses impact on various asked areas could be characterized as perfect; only positive. To that end, the targeted courses seem to have helped students to develop vital skills and abilities that they could be seen as essential for their careers similar to what many scholars have advocated (Liñán *et al.*, 2011).

In contrast to Souitaris *et al.* (2007), Falck *et al.* (2012) who contend that the will itself cannot be conveyed by courses was confirmed by this study. Postgraduate students

declared that in spite of the overwhelming effect that their EIs courses had on various other areas, they were ineffective in augmenting their preference to pursue these careers.

Further, SEE has proven to be more effective than EE on influencing the knowledge, abilities, skills and provoking the preference for students to become social entrepreneurs. Certainly, this outcome gives evidence to Shumate *et al.* (2014) who found that for existing social entrepreneurs, education was decisive into choosing their careers. Although there is a positive influence of SEE to students' SEIs (Shumate *et al.*, 2014; Yiu *et al.*, 2014), no one has reported similar results by comparing the effects of EE with that of SEE.

Faculty. Contrary to the findings of Sandhu *et al.* (2011), that students (in some cases postgraduates) were not seemed to be affected by their faculties in their EIs, this research has found significant differences between postgraduates' faculty groups and their EIs. Findings disproved that students with business-related degrees tend to be more entrepreneurially inclined (Liñán and Santos, 2007), as those postgraduates who were studying in economics and computer science departments had the greatest EIs in the study's sample. The fact that no statistical differences have been found for postgraduates' faculty groups and their SEIs, supports Shumate *et al.* (2014) claim that the type of the (university) degree is irrelevant to SEIs.

Work experience. Contrary to Liñán *et al.* (2011) and Sandhu *et al.* (2011), the results have signaled significant statistical differences for EIs between self-employed experienced and inexperienced students. Further, SEIs of those who had previous commercial self-employment experience did not differ from those who were practically entrepreneurially inexperienced and that their SEIs were substantially low. Therefore, the study's empirical evidence has not supported Shumate *et al.* (2014), and Lehner and Kansikas's (2012) assertion that social entrepreneurs are in many cases serial entrepreneurs.

Theory of contextual effect. The contextual influence on SEIs was perceived as average by the participants. This finding is contrary to Houser and Xiao (2010) who urge that (S)EIs are heavily influenced by contextual factors. However, when each contextual attribute was solely examined it was revealed that two of them (culture and country's economic development) were seen as positively influential by more than 50 percent of the total sample while the other two (environmental conditions and political environment) by less than 50 percent. The results regarding culture, agree with Defourny and Nyssens (2010) who suggested a positively mediating role to (S)EIs (of culture). Presumably the fact that the study has found no statistical differences – with regards to (S)EIs – for nationality cohorts of Greeks and Cypriots who share similar cultural traits (e.g. same language spoken, similar traits of customs and traditions), point out that indeed there may be a cultural influence to SEIs.

It is arguable, though, how environmental conditions (social-technological) were seen by much less responders as positively influential since culture and environmental conditions are often grouped (Hofstede *et al.*, 2004). The same holds true for political environment and economic development which are paired in terms of their reciprocal relation and in the research results an unequal number of responders highlighted the influence of the one upon the other. The least agreed contextual factor's positive role, political environment is conversely acknowledged by many as one of the most influential to SEIs factors (Teasdale *et al.*, 2013). For example, the political environment is said to be what determines the legitimacy of SE and hence what social business model is going to be pursued by social entrepreneurs (Defourny and Nyssens, 2010).

One possible explanation could be that the political environment may actually have an unconscious effect which was unrecognizable by most of the research participants.

The influence of personality traits on ((S)EIs). From the personality traits (i.e. creativity, problem solving, leadership and communication skills, feelings of benevolence, type of thinking) that have been mentioned in the literature to affect (S)EIs, none has been found to directly influence postgraduates EIs. This particular finding could be considered interesting since it challenges the theory's effect, at least, in present study. Hence, the study's findings contrast Shinnar *et al.* (2012) who have advocated that the PTT is better in explaining entrepreneurial behavior than the demographic approach. Findings also contrasts Nga and Shamuganathan (2010) study which found strong evidence that personality characteristics exert an influence to SEIs. The current paper findings are in line with McKenzie *et al.* (2007) research which have diminished the influence of personality traits in favor of attitudes, which can be learnt through properly made educational programs.

Juxtaposition in mission focus. The results have shown that potential social entrepreneurs are much confused as they consider that the two different missions (social adherence and financial results) that SE inherently has, contradict one another. This is consistent with Gonin *et al.* (2013) who have maintained that various tensions can be created when these missions are combined. It also confirms Smith *et al.* (2012) who have implied that SE mission tensions could be evident, early on, in the intention's formation process. Postgraduates voted that most tensions would manifest "in performing" and "in belonging" which concerned strategic goals, metrics and having people with divergent identities (e.g. different types of stakeholders) in the business. Once more, prominent scholars' opinion has been verified from the results as the above said acceptance of tensions existence could signal early signs for subsequent attenuation in responders' SEIs or it could cause mission drifts when their social enterprises have been created (Dees, 2012; Miller *et al.*, 2012).

The results also point that the majority of those who said they had never before considered becoming social entrepreneurs could see that the SE missions contradict. This could possibly mean that mission tensions could affect all individuals who may be working after their graduation in double and triple bottom line firms and not only students with SEIs as some scholars have said (Kuckertz and Wagner, 2010). Interestingly, when comparing the two distinct groups, those who had SEIs and noticed tensions in mission focus were fewer (57.1 percent) than those who did not have SEIs but noticed tensions (51.3 percent).

Research implications

Theoretical implications

The findings have shown some respectable theoretical implications. The research contributed to the (social) entrepreneurial academia by offering additional and up-to-date empirical evidence on the creditworthiness of TPB in predicting (S)EIs and the substantial effect of the demographics (the demographic approach) on EIs (and to a lower extent on SEIs). The findings disproved other major theories (the PTT and partially the theory of contextual influence) that have been backed up by plenty of scholars across time. Hence some inherent differences between SEIs and EIs were spotted, which indicate that they are not shaped exactly by the same factors (e.g. by the composition of demographics) though they share some fundamental similarities which should not be ignored (e.g. they are both strongly affected by the individual's PA and

his PBC). Finally, the results allow some theoretical inspection of (S)EIs to be made. The proved theories constitute a strengthening nexus which would help build a solid foundation regarding the nature of (S)EIs. On the other hand, disproved or partially proved theories' correlation to (S)EIs stand in need of a thorough re-examination.

Practical implications

Based on the study's findings on the demographic approach, educational institutions would be advised to adjust their taught programs with demographic attributes in mind (e.g. by having gender-specific homework, or by inviting women entrepreneurs to participate in the lectures) to foster EIs while to achieve fostering SEIs educational programs should be designed based on other criteria.

Previous studies have concluded that (personal) attitudes (the first attribute of TPB) could be shaped through rightly designed educational initiatives (Farashah, 2013; do Paço *et al.*, 2011) an important assertion seeing that in the present study the TPB was proved to be an adequate model theory for predicting (S)EIs in contrast to PPT. Therefore, it is essential to underline that based on those findings, school/university/private tutors and professors are advised to avoid associate the (social) entrepreneurial personality with traits in their lectures. It could be proved better if they tried to cultivate the right attitudes toward these subjects to their students via using tested and trusted materials and programs. In addition, in accordance to Farashah's (2013) study (SEE could be used to improve students' PBC (self-efficacy) (the second attribute of TPB) which was found in the current study to predict (S)EIs and consequently indirectly affect their inclination toward (social) self-employment.

Furthermore, juxtapositions in SE mission focus were evident to postgraduates with SEIs. Given the fact postgraduates are one step before (social) self-employment (Maes *et al.*, 2014; Douglas, 2013), it is apparent that in order to prevent any attenuation in the intensity of intentions (to pursue the – social – entrepreneurial behavior) or any detrimental mission drift it is in need to design and develop special educational and legislative programs especially seeing that SEE and EE has been found to substantially affect (S)EIs of postgraduate students. SEE targeted programs have only recently bloomed (Middleton, 2009) and up until now, SEE programs have stemmed from applications of EE best practices (Smith and Woodworth, 2012). Presumably EE methods applied to SEE are not enough but would best work as complementary to exclusively constructed SE curricula.

The task to construct special designed SE curricula and legislative programs that would smoothly merge (e.g. government subsidized – social – entrepreneurial internships) under a bilateral interest would not be easily achieved. A seamless interaction among all stakeholders (instructors, policy makers, social entrepreneurs and – postgraduate students) should be considered as necessary since a multi-layer knowledge needs to be shared and exploited. Program designers should be aware of the legislative freedom, the practitioner's views and students' knowledge gaps. Educational experiments should take place to observe the outcomes of newly applied practices as well as help confirm the adequacy of best practices.

Finally, on account of the study results showed that the knowledge of the (social) entrepreneurial figure was a contributing factor in their intentions to pursue their selected career, students should be able to have a direct contact with practitioners (social entrepreneurs) whose opinions may have an influence on students' viewpoint because they could act as their role models. Karimi *et al.* (2013) and Schwarz *et al.* (2009) have proposed that students' interaction with role models could have an indirect – on

the antecedents – effect to their EIs (through the process of social learning, according to the latter). A good case in point would be the design (undertaken by governments) of national dedicated web-based communication platforms where students could pose their questions (e.g. would combining social focus and generation of profits confuse me in selecting the strategic course of my social enterprise?) and receive answers from discrete social entrepreneurial practitioners and scholars. Schools/universities could participate in that endeavor through contacting local and recognized (social) entrepreneurs. A collaboration of educational institutions with practitioners would allow students to do their internships near role models.

Limitations and future research

A possible limitation is that this research was exclusively focused on postgraduate students in South-Eastern European regions; primarily Greece and Cyprus. Many of the other South-East European countries were initially intended to be surveyed but eventually few students responded from the Balkans. Further, the research focal population sample was postgraduate students only.

A possible future research would be to examine the indirect effects of all the factors that were researched in the study to (S)EIs. For example, the characteristics for which the study found no direct correlation to SEIs, could affect SEIs through PA and PBC (indirectly). Further, researchers may explore other factors that directly and/or indirectly affect (S)EI (e.g. opportunity recognition, access to finance, social capital).

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