

Assessing Entrepreneurship Education in Greece: An Integrated Model Approach

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Abstract

The main purpose of this study is to develop and propose a framework to assess the entrepreneurship education programmes (EEP) measuring the change of student's entrepreneurial intentions (EI). Focus of our interest is graduate students from Greek tertiary level of education and especially students from science and engineering departments. Adopting DG's reference framework and combining it with the factor of emotions as a separate dimension we shape the conceptual framework of our model. It includes four major dimensions – Skills, Attitudes, Knowledge, Emotions – as well as a number of demographic questions. Each dimension is described by different constructs required in different phases of the entrepreneurial process and represent a unique variable (indicator). All the constructs are validated by established measures. For the selection of the constructs we incorporate the traits of the Big5 or five-factor model of personality. This model is the most popular and widely used scientific taxonomy for describing individual differences in personality. It is consisted of five independent scales namely openness, conscientiousness, extraversion, agreeableness and neuroticism. We divide our sample in two categories, students from technical departments who did not intent to participate in an entrepreneurship course and obliged to select the course because of the curriculum (treatment group) and students who do not participate (control group). We use only post-tests because usually EEPs' are not mandatory for students, especially in non-business studies. In our model, students have not randomly been assigned to participate in the EEP, but have voluntarily chosen to participate in the course. To simply compare the outcome for the control group and treatment group would be easy, but it would not give a reliable result. To overcome the difficulties and restrictions arise from this problem we use the Propensity Score Matching (PSM) method. The key idea behind this method is that the two groups with the same probability of treatment will appear in the treated and untreated samples in the same proportion. PSM algorithm matching which students are the most relevant by taking into account all the characteristics at once and finds a "twin" for each student that has participated in the EEP. The more similar students are in terms of their characteristics that affect the probability of participating in the EEP, the less bias problems will be because of the self-selection factor in the estimation results. The existence of multiple constructs which are variables that cannot be observed and cannot be measured directly (latent) and the use of multiple questions is demanded to be fully captured, make us to use the statistical technique structural equation modelling (SEM). The latent variables are assessed for

assumptions test to check for violation for normality, Cronbach's alpha and Pearson correlation. In order to assess how well the questions are reflected by the constructs, we perform various confirmatory factor analysis. Issues relative to internal consistency, convergent validity and discriminant validity are assessed with the use of Fornell and Lacker-test. Moreover, we use factorial invariance method to compare how different group of students depending on their background interpret the questions and the group analysis technique to assess the indicators predictive validity of our model.

Keywords: assessment entrepreneurship education, entrepreneurial emotions, entrepreneurial intentions