DETERMINANT FACTORS IN ENTREPRENEURIAL INTENTION AMONG SOCIAL WORK DEGREE STUDENTS: THE MODERATING EFFECT OF ENTREPRENEURSHIP EDUCATION

**Abstract** 

• Purpose - The objective of this study is to examine the factors that determine the

entrepreneurial intention among Social Work degree students. The study considers the direct

influence of personal traits, demographic characteristics, informal education and

entrepreneurship education and, in addition, the possible moderating effect of

entrepreneurship education on the other factors.

**Design/methodology/approach** - A sample of 139 undergraduate students registered in the

Social Work degree offered by University of Zaragoza (Spain) is analyzed, by using a

longitudinal system based on questionnaires that were passed at two different times -before

and after receiving the entrepreneurship education. Logistic regression models are built and

estimated according to the explicative variables.

Findings - The results indicate that demographic factors, personality traits, professional

experience and entrepreneurship education are significant factors in fostering social

entrepreneurship among Social Work students. Additionally, entrepreneurship education has

a moderating effect on the other variables, but only partially and not always positive.

• Originality - This paper investigates entrepreneurial intention in the context of

undergraduate Social Work students, and this is a novel methodological approach. In

addition, to the analysis of the direct influence of the determinants of entrepreneurial

intention, we add the possible moderating effect of entrepreneurship education on the

influence of the other explanatory variables.

**Practical implications** – The entrepreneurial initiative of social workers can make a very

valuable contribution through the start-up of social enterprises. The findings suggest the

convenience of promoting entrepreneurship education in the Social Work degree, with

teaching contents and methodologies adapted to social entrepreneurship. Nevertheless, the

interaction of educational methodologies with the other determinants does not always have

a positive impact on entrepreneurial intention.

**Keywords:** Social entrepreneurship, Social Work degree students, entrepreneurial intention,

determinants, entrepreneurship education, moderating effect.

Article classification: Research Paper

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#### 1. Introduction

The vital role played by entrepreneurship in economic and social development and the creation of wealth is seldom contested among public administrators, academics and society more broadly (Hernández-Mogollón et al., 2018; Hytti et al., 2018). The creation of new enterprises is often put forward as a possible solution to unemployment (Vodă and Florea, 2019), as well as an important economic stimulus at regional level (Bosma and Kelley, 2019).

In this context, one area that is becoming increasingly relevant is social entrepreneurship (Muntean and Ozkazanc-Pan, 2016). The feature that distinguishes social entrepreneurship from traditional or commercial entrepreneurship is that it puts the creation of social value before the creation of value for the owners of the organization (Di Domenico et al., 2010; Austin et al., 2012). Thus, while the mission of the former pursues the achievement of social objectives in an economically viable manner, the latter measures its results exclusively in financial terms, since its main objective is the maximization of the owners' profit (Rosca et al., 2020).

Social entrepreneurship also contributes to creating social value through creative and innovative business initiatives, whether in the public, private or non-profit sector, aimed at addressing social needs, providing solutions to social problems and promoting social change (Nandan et al., 2015). Progressively, social entrepreneurship is gaining greater prominence (Germak and Singh, 2010), even more in times of economic instability such as the one we are currently experiencing, in which more opportunities arise to launch this type of entrepreneurial initiatives (Nandan et al., 2015).

Consequently, the factors that determine social entrepreneurial intention (SEI) are receiving much academic attention. A major line of research in recent years focuses on 'personal-level variables' (Tan et al., 2020). These variables refer to the roles of individual characteristics, such

as personality traits and background factors, in SEI. Background factors include previous experience and education.

In this context, university entrepreneurship education has gone beyond those degrees that are most directly related to business administration and is now present in many other degrees (Faherty, 2015), for instance, Social Work. According to the International Federation of Social Workers (2014), the profession of social work is "a practice-based profession and an academic discipline that promotes social change and development, social cohesion and the empowerment and liberation of people. The principles of social justice, human rights, collective responsibility and respect for diversity are fundamental to social work".

In the Spanish context, in which this paper is developed, university education in Social Work is divided into two consecutive levels. The first level is the Bachelor's degree, which is obtained in four years and allows access to the labor market. This training has a common base with common subjects of the same value, through which 240 ECTS (European Credit Transfer System) credits are taken. A second postgraduate level, which allows obtaining a Master's degree (1 or 2 years, 60-120 ECTS credits) and/or a doctorate. According to the General Council of Work Social in Spain its website on (https://www.cgtrabajosocial.es/internacional trabajarespa%C3%B1a#), the requirements to be able to work independently as a social worker, i.e. to start a private practice, are to have a university Bachelor's Degree in Social Work and to be registered with a professional association.

However, social entrepreneurship is, in general, a marginal option in professional social work (Gray et al., 2003; Nandan and Scott, 2013). Prince (2001) and Germak and Singh (2010) explain that this low interest or distrust of social workers in social entrepreneurship is due to the difficult balance between the logic of the market (which is driven by competitiveness, efficiency, profit) and the logic of social services (public interest, priority of supplying needs,

socially vulnerable clients). Consequently, social entrepreneurship in Social Work degree has hardly been subject to research (Fargion et al., 2011).

On the other hand, concerning the impact of entrepreneurship education on entrepreneurial intention, to date arguments are not supported by solid empirical evidence. Authors are divided into two groups: those who claim that this education has a positive effect on entrepreneurial intention and those who argue that the impact is either negative or non-existent. These positions have triggered an interesting debate about whether entrepreneurial talent can be taught or is an innate trait that only some people possess (Hernández-Mogollón et al., 2018). In this case also, most of the studies targeted at university education focus on engineering studies (Mat et al., 2015; Barba-Sánchez and Atienza-Sahuquillo, 2018), business studies (Liñán et al., 2011; Roxas, 2014) or both (Maresch et al., 2016; Yıldırım et al., 2016; among others), while in degrees such as Social Work this type of research is much rarer, although interest is growing (Nandan et al. 2015). This is remarkable considering that degree choice is a decisive factor for entrepreneurial intention (Lans et al., 2010; Sieger et al., 2014; among others).

Consequently, the aim of this study is twofold. First, it aims to explore which factors foster entrepreneurial intention among undergraduate students in relatively untapped degrees, such as Social Work. Undergraduate students are an appropriate population for this research, taking into account that in the Spanish context the university Bachelor's degree is the only training requirement for the private practice of social work. Second, in light of the debate concerning the effect of entrepreneurship education, this research aims to deepen the study of the influence of entrepreneurship education, incorporating as a novelty in the analysis the consideration of the potential moderating effect of this variable on other factors.

Thus, the contribution of this article lies both in the investigation of entrepreneurial intention in the context of students of the Social Work degree, and in the incorporation in the analysis of

the determinants of the moderating effect of entrepreneurship education on the influence of other explanatory variables.

The article is organized as follows. In the next section, we present the theoretical framework. In the section that follows, we present the methodology, and discuss the sampling, questionnaire and statistical methodology. After this, the results are examined and interpreted. Finally, we present our conclusions and the implications of the results.

#### 2. Theoretical framework

The Degree in Social Work in Spain trains professionals whose objective is to assess and diagnose social needs in order to promote change. Its function consists of "planning, projecting, calculating, implementing evaluating and modifying social services and social policies for social intervention with groups and communities". They provide resources and services to various sectors of the population at micro, meso and macro social levels, using a variety of methodological approaches. Historically, it has been a strongly feminized university degree and this historical trend continues today (General Council of Social Work, 2012, 2019). In the professional field, social work is installed in the public social services system to develop social interventions. For this reason, the knowledge about professional opportunities for most students is limited to public examinations, to work in social service centers. However, in the Spanish context, social workers can opt for the private practice as soon as they complete their undergraduate studies, once they are registered with a professional association. Gradually, the option of social work private practice, that is to say, social work as a private professional activity, is beginning to become visible. In this area, multiple services or activities can be carried out: individual and/or group direct practice, mediation, judicial social forensic expertise, clinical social work, social work for companies, corporate social responsibility, management of private or third sector entities, management of mutual insurance companies

collaborating with the Social Security, management of nursing homes and home help services, management of day care units, home adaptations, digital era, among others (Villaluenga and Calvo, 2017).

In the last Spanish Congress of Social Work Private Practice (ATSEL, 2019) a survey of social workers was conducted. 85.1% of them were women, with an average age of 45 years. They were professionals with an average of 6 years of experience as social workers, intervening mainly at the individual level (93.6%). Most of the respondents rated as insufficient the training on social entrepreneurship received in their university studies (87.5%), having decided to receive training on this subject at a later stage (Frieiro-Padín et al., 2021).

Certainly, Spanish universities do not see the private sector as a labor market niche for social workers, in general. Therefore, they hardly provide training in this area. Thus, of the 37 Spanish universities that offer the Degree in Social Work, only six incorporate a course related to entrepreneurship, and in some cases it is offered as an elective subject. However, it is necessary to reflect on the new professional fields derived from emerging social phenomena, such as changes in family models, the increase in life expectancy and, therefore, the aging of the population, or the impact of new technologies, social assessments in expert's reports, occupational risk prevention, proximity services, projects for companies, associations, etc. In addition, the social worker can act as an intra-entrepreneur, designing more effective and efficient operations and partnerships within organizations (Nandan et al., 2015).

According to Tan et al. (2020: 3), "SEI refers to the intention of starting a social enterprise (Mair and Noboa 2006) and is considered a psychological behavior encouraging an individual to acquire knowledge, instigate novel ideas, and implement the social entrepreneurial plans to eventually become a social entrepreneur (Mair et al., 2006)".

In the last years, the factors that determine SEI have received substantial scholarly attention, beginning with the pioneering work by Mair and Noboa (2006), based on Shapero and Sokol

(1982), which presented Shapero's model of the entrepreneurial event, and Ajzen (1991), who posed the theory of planned behavior. Empirical evidence suggests that entrepreneurial intention could be determined by two main categories of factors: contextual factors and personal background (Herman and Stefansecu, 2017).

# 2.1 Contextual factors

Herman and Stefansecu (2017) suggest that prior exposure to entrepreneurship, either through entrepreneurship education or the existence of referents, can have an effect on personal approaches to entrepreneurship.

According to Sun et al. (2017: 2)," entrepreneurship education focuses on developing entrepreneurial knowledge, capacity, skills as well as entrepreneurial attitudes and intentions that are congruent with the needs of the economy". Some studies present empirical evidence for the direct positive effect of entrepreneurship education on entrepreneurial intention (Martin, MacNally and Kay, 2013; Zhang et al., 2014; Hartsenko and Venesaar, 2017; Barba-Sánchez and Atienza-Sahuquillo, 2018; among others) although no consensus exists concerning whether this effect is significant (Block et al., 2011) or not (Bae et al., 2014).

Should significant effects be confirmed, this would mean that it is possible to teach and learn entrepreneurial skills (Mayhew et al. 2012). According to Fayolle and Gailly (2015), university entrepreneurship education should aim to raise awareness of entrepreneurship as a viable professional career path. In this regard, Solé (2016) argues that proactive, collaborative and competitive methodologies improve key entrepreneurial skills such as business attitude and skills and entrepreneurial knowledge (Herman and Stefanescu, 2017).

Social entrepreneurship education has the particularity that it must not only enable students to acquire the knowledge and experience necessary to successfully carry out an entrepreneurial activity. It must also help them acquire the ability to reconcile three distinct and sometimes

conflicting institutional logics – the social welfare logic, the commercial logic and the public sector logic - to create innovative hybrid strategies (Pache and Chowdhury, 2012).

Other studies, however, argue for a negative or negligible relationship between these variables (Oosterbeek et al., 2010; von Graevenitz et al., 2010; Vodă and Florea, 2019), claiming that the greater awareness which entrepreneurship education imparts only highlights the risks associated with entrepreneurship (Herman and Stefansecu, 2017).

Other authors suggest that entrepreneurial intention can be positively affected by informal education, acquired through informal networks or direct exposure to entrepreneurial environments (family, friends and work experience), which can act as models for the student (Zhang et al., 2014; Fayolle and Gailly, 2015; Akinbola et al., 2020). The social and family environment has a positive effect on entrepreneurial intention (Sánchez-Almagro, 2003). Work experience prior to graduation (part-time work, outside the curriculum), which is also regarded as informal education, can be a source of motivation (Fayolle and Gailly, 2015) that fosters specific entrepreneurial skills (initiative, organization, planning, etc.) and directly increases entrepreneurial intention (Pittaway and Cope, 2007).

## 2.2 Personal background

In addition to contextual factors, personality traits are another determinant factor of entrepreneurial intention. These include psychological variables and demographic characteristics (Liñán and Fayolle, 2015; Vodă and Florea, 2019).

Some of the personality traits and individual skills that are generally accepted as having a positive effect on entrepreneurial intention are innovativeness/creativity, optimism or positive thinking, risk-taking propensity, self-confidence, strategic thinking, interpersonal skills, ability to use mutual interconnectedness, conflict management, internal locus of control and competitiveness or need for achievement (Collins et al., 2006; Pruett et al., 2009; Zhao et al.,

2010; Ferreira et al., 2012; Zeffane, 2013; Biraglia and Kadile, 2017; Teixeira et al., 2018; Vodă and Florea, 2019).

Social entrepreneurs are innovative, proactive risk takers, who are committed to sustainable change projects to address endemic social problems, relying on the social capital and social networks they are able to build. Therefore, social entrepreneurs have the main components of entrepreneurial orientation: innovation, proactivity, and risk taking (Chipeta and Surujlal 2017; Nandan et al., 2015). Tan et al. (2020) add, among other SEI-specific personality traits that have been studied, emotional intelligence and self-efficacy (Tiwari et al., 2017), and compassionate love, hardship in life and moral judgment competence (Bacq et al., 2018). And all of these competences can be ascribed to professional social workers (Fargion et al., 2011). In order to identify entrepreneurial skills and competences, Hernández-Mogollón et al. (2018) take as a reference the distinctive competences identified by Brownell and Goldsmith (2006) that characterize effective global leaders: intercultural skills (cultural sensitivity, cultural intelligence, global mindset), social skills (emotional intelligence, empathy, self-control), responsibility (flexibility, agility, opportunistic outlook), creativity/initiative (disruptive thinking, innovativeness, synergic orientation), self-knowledge (efficacy, self-reflection), positive thinking (vision, passion, optimism), responsiveness (flexibility, agility, opportunistic outlook) and decisiveness (analytical skills, intuition, decisiveness). This proposal is consistent with the Big 5 model (i.e. extraversion, openness to experience, neuroticism, conscientiousness and agreeableness) that Nga and Shamuganathan (2010) take as a reference to describe the personality of the potential social entrepreneur.

In addition, there are sociodemographic characteristics that determine social entrepreneurship start up intention (Nga and Shamuganathan, 2010), such as age (Culpin et al., 2015) and gender, especially the latter. In relation to the gender variable, a difference is observed between commercial entrepreneurship and social entrepreneurship. While in the former there is a more

positive attitude and a greater entrepreneurial inclination or intention of men in relation to women (Liñán and Fayolle, 2015; Vodă and Florea, 2019), in the context of social entrepreneurship previous literature seems to indicate the opposite (Rosca et al., 2020). However, in the field of Social Work it is difficult to analyze this issue, because the overrepresentation of women means that the gender variable can hardly provide information. Therefore, we pose the following hypotheses concerning the direct effect of the explicative variables on entrepreneurial intention:

- H1.1: University entrepreneurship education has a direct and positive influence on entrepreneurial intention among Social Work degree students.
- H1.2: Contextual factors related to informal education have a direct and positive influence on entrepreneurial intention among Social Work degree students.
- H1.3: Personal background related to personality traits has a direct and positive influence on entrepreneurial intention among Social Work degree students.
- H1.4: Personal background related to demographic characteristics has a direct and positive influence on entrepreneurial intention among Social Work degree students.

## 2.3 Moderating effect of entrepreneurship education

Despite the numerous studies published in recent decades, significant theoretical and empirical discrepancies remain concerning the impact of entrepreneurship education on entrepreneurial intention (Bae et al., 2014).

In the context of this debate, Roxas (2014) suggests that it is necessary to research not only the direct but also the indirect impact of entrepreneurship education on entrepreneurial intention. Based on the theory of planned behavior, he examines the direct effect on entrepreneurial intention of changes in students' entrepreneurial knowledge, the individual's perceptions of desirability of entrepreneurship and perceived self-efficacy to engage in entrepreneurship, as

well as the indirect or moderating effect of the first of these variables (changes in students'

entrepreneurial knowledge) upon the other two (individual perceptions of desirability of

entrepreneurship and perceived self-efficacy to engage in entrepreneurship). His results

suggest that these moderating effects are significant, albeit limited to certain areas.

Based on this idea, we pose the following hypotheses concerning the possible moderating effect

of entrepreneurship education on entrepreneurial intention:

H2.1: Entrepreneurship education acts as a mediating variable in relation to the effect

that informal education has on entrepreneurial intention among Social Work degree

students.

H2.2: Entrepreneurship education acts as a mediating variable in relation to the effect

that personality traits have on entrepreneurial intention among Social Work degree

students.

H2.3: Entrepreneurship education acts as a mediating variable in relation to the effect

that demographic characteristics have on entrepreneurial intention among Social Work

degree students.

Consistent with the theoretical framework and in order to accomplish our two aims, we

developed our theoretical model (Figure 1).

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Insert Figure 1 about here

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3. Method and data

3.1 Sample

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The present study was carried out within the framework of the Social Work degree offered by University of Zaragoza (Spain). In order to obtain this degree, it is necessary to complete 240 European credits (ECTS), distributed in four years, including a Final Degree Project. This training stands out for its multidisciplinary nature within the framework of the Social Sciences. Students acquire skills to analyze, plan and develop social interventions in different fields of local, national and European action.

The curriculum of the degree is organized in 5 modules: 1) Social work: concepts, methods, theories and application (60 ECTS); 2) The institutional context of social work (30 ECTS); 3) Processes and problems on which social work acts (54 ECTS); 4) Legal and organizational tools for social work (18 ECTS); 5) Practicum and Final Degree Project (53 ECTS). To all this, we must add 25 ECTS in elective courses.

The only course in the curriculum that offers training in social entrepreneurship is "Management of Social Economy Organizations", which is taught in the third year. It is a compulsory course, which is part of the fourth module (Legal and organizational tools for social work).

According to the official curriculum of the Social Work degree designed by the Spanish Ministry of University (ANECA, 2004), at the end of it, students have acquired competences and skills that can be applied in different fields (health, education, justice, employment, urban planning, housing issues, business, environment, volunteering, culture and leisure, among others) and oriented to different phases of intervention (assistance, prevention, mediation, rehabilitation, transformation).

The data was collected from a sample of 139 students enrolled in the course "Management of Social Economy Organizations". The course is one semester in duration and is worth six ECTS. It contextualizes the organizational environment in which graduates will operate professionally and teaches the students issues related to the management, organization and control of social

economy organizations. The course presents the different organizational categories of the Social Economy recognized in our national law (Law 5/2011 of Social Economy), as well as others susceptible of integration, such as social enterprises recognized by the European Union (European Parliament, 2009). The objective of these organizations is to achieve a positive social impact, rather than to generate profits for their owners or partners. They operate in the market by providing goods and services in an entrepreneurial and innovative manner and use their surpluses mainly for social purposes. They are subject to responsible and transparent management, in particular through the association of their employees, their customers and/or any other stakeholders who may be interested in their economic activity (COM, 2011, 682 final). Although the course is not specifically concerned with entrepreneurship, entrepreneurial attitudes are fostered.

Using entrepreneurial tools (PESTEL Analysis, Porter's Value Chain, SMART Goals, SWOT Analysis, CANVAS Business Model, Balanced Scorecard...), the lecturers adopt teaching methodologies based on experimentation and shared knowledge, such as: 1) seminars given by social entrepreneurs; 2) laboratories of ideas and teamwork projects, within which students are divided into two groups: event-group (whose aim is to organize a social event) and visit-group (whose aim is to understand the operation of social entrepreneurial ecosystems and explain it to their classmates). This methodological approach makes it possible to offer students an education in social entrepreneurship. This involves training in entrepreneurship, to acquire the skills, attitudes and behaviors necessary to succeed as entrepreneurs. And, necessarily, it is complemented by training on the specificities of the social entrepreneurship process, for the acquisition of a skill that is essential and unique to the success of social entrepreneurs: the ability to reconcile the social-welfare logic, the commercial logic, and the public-sector logic (Pache and Chowdhury, 2012).

For this study, we have used a longitudinal system based on questionnaires that we passed at two different times: at the beginning and the end of class period. Students were asked about their intention to start a business (EI) and the factors involved in this intention, both at the start (M1) of the semester and again at the end (M2), once the course has been imparted (EE). Questionnaire M1 was answered by 139 students (75.5%) out of a total of 184 students, and more than 45% (66 students) answered the questionnaire M2.

## 3.2 Questionnaire

Based on the theoretical background presented above, a questionnaire was designed and made available online to the students.

The explicative variables were expressed in the questionnaire as follows:

### • Contextual factors:

- Entrepreneurship education (EE): This section of the survey addresses the students' perceptions of how the different teaching methodologies implemented have affected their entrepreneurial intention. These methodologies emphasize entrepreneurial projects and tools, describe the entrepreneurial environment as a learning context (Iracheta et al., 2013), encourage learning by doing and present live case studies. These variables were measured using a 10-point Likert scale, in which 1 means that the entrepreneurship education has had "no effect" and 10 means "a great effect."
- *Informal education*: This section presents the students with a Yes/No question about the existence of professional referents (PF) in their lives (work experience, volunteer work, family members with entrepreneurial background).

# • Personal background:

- *Personality traits*: Individual traits (personal, social and economic motivations; self-confidence; creativity; optimism; personal initiative; leadership; and attitude to risk)

concerned with social entrepreneurial skills (ES). The questionnaire asks specific questions about each of these traits. Responses are measured through a 10-point Likert scale from "totally agree" to "totally disagree."

- Demographic characteristics: Age and gender (DC).

The dependent variable is entrepreneurial intention (EI). This is addressed through the following Yes/No question: *Have you ever considered starting your own social enterprise?* It is important to clarify that before responding to the survey, the students who participated in the study had already received training on the multiple options of social entrepreneurship in the course, although not on the complexity of managing this type of organizations.

# 3.3 Methodology

Students were asked to complete the questionnaires before and after the course (M1 and M2 respectively). This allowed us to compare the variable EI1 (*Have you ever considered starting your own social enterprise?*) before receiving EE and EI2: *After completing this course, have you considered starting your own social enterprise?* 

The information collected in M1 permitted us to analyze the explicative variables in EI independently (except for EE, which at M1 is not yet available). Variable EE can be incorporated into M2, allowing for an analysis of the direct effect of all determinant factors and the possible moderating effect of EE on the rest of variables.

Step one (M1): We began by analyzing entrepreneurial skills (ES) in connection with personality traits through analyzing Cronbach alpha reliability and internal consistency (Nunnally, 1987; Churchill, 1979) over 83 initial variables, prior to ruling out inappropriate elements (item total <0.3 correlation) (Nurosis, 1993). This analysis was applied to the entire sample of 139 responses. Secondly, we carried out an exploratory factor analysis using SPSS 26.0 software and Varimax rotation principal component analysis (Harman, 1967; Sharma,

1996). This was followed by another round of reliability tests to identify indicators with communality values above 0.6 and loaded on a single factor. For each construct, the average value of each observed item was calculated, and the result used in the next regression analysis. Following this, the sample of 66 students who responded to the questionnaire at M1 and M2 was subjected to logistic regression analysis (LGR) using variable EI1, which is a binary variable (YES = 1; NO = 0). The model is estimated according to the set of explicative variables. A number of stepwise regression models were applied (Wald test). A significance level of 0.05 was adopted, and some interaction effects between independent variables were considered. The models with a greater explicative potential were selected, and the effect of the independent variable estimated coefficients interpreted.

Step two (M2): In this step, the questionnaire included the EE variables as well as the EI2 variable, which was codified as a binary variable (YES = 1; No = 0). LRG models were built and estimated according to the explicative variables. First, the direct effect of EE variables upon the explicative variables featured in M1 were analyzed. Secondly, the simplified model that reflects the direct and moderating effect of EE was implemented, following the same methodology adopted for M1.

### 4. Results and discussion

### 4.1 M1 Results

The preliminary analysis of entrepreneurial skills in M1 was found to be highly consistent (Cronbach alpha = 0.95); the optimum number of variables included 58 items. As illustrated in Table 1, factorial analysis results suggest that personality traits or entrepreneurial skills (ES) are divided into six factors, with a total of 24 items: decisiveness (analytical skills, intuition, decisiveness), social skills (emotional intelligence, empathy, self-control), responsibility (flexibility, agility, opportunistic outlook), creativity/initiative (disruptive thinking,

innovativeness, synergic orientation), self-knowledge (efficacy, self-reflection) and positive thinking (vision, passion, optimism). This analysis indicates a good fit of the data (KMO = 0.861) and a significance level of 0 (Bartlett's test of sphericity). Explained variance is above the minimum of 60% proposed by Hair et al. (1987), and Cronbach alpha reliability values are in excess of the minimum value of 0.60 suggested by Peterson (1994) and Slater (1995). The results are consistent with the proposals set forth by Hernández-Mogollón et al. (2018), following Brownell and Goldsmith (2006).

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Insert Table 1 about here

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After this preliminary analysis, logistic regression was undertaken. Only regression models with statistically significant coefficients are presented here. The remaining variables are regarded as not significant for the purposes of the present analysis. For instance, the gender variable was ruled out owing to the small proportion of men (women = 86.3%; men = 13.7%). In Step 1 (M1), we address responses to dependent variable EI1: *Have you ever considered starting your own social enterprise?* (YES = 48.5%; NO = 51.5%). The logistic regression equation is presented in Table 2.

Concerning the goodness of fit of the model, Nagelkerke's R<sup>2</sup> (Nagelkerke, 1991) yields a coefficient of determination of 37.3% for EI1. The Hosmer–Lemeshow test, which measures the correspondence of the real and predicted values of the dependent variable, presents a non-significant value (≥0.05), and this suggests a good fit (Rodríguez and Gutiérrez, 2007). Given that the probability of occurrence is calculated based on the likelihood of students having EI1, it is estimated that the model correctly categorizes 70.8% of answers. Our analysis presents a

high percentage of correct diagnoses (64.5%), and its specificity to detect students without EI2

is also high (76.5%).

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Insert Table 2 about here

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Of all entrepreneurial skills, three were noted as having a positive and significant influence on

EI1 before receiving EE: responsibility (ES<sub>3</sub>), creativity (ES<sub>4</sub>) and self-knowledge (ES<sub>5</sub>). This

suggests that flexibility, mental agility and the ability to spot opportunities, as well as disruptive

and innovative thinking, inspire and fill the most self-reflective students with optimism: that

is, these qualities help people generate expectations of the firm in which they would like to

work. This partially supports hypothesis H1.3 because the other ESs do not have a significant

effect.

It is also worth noting that the results evidence the influence of demographic characteristics

(DC), particularly age, which has a significant effect on the entrepreneurial initiative of

university students. Students who are a year older than average are 27% (odds ratio) more likely

than younger students to have EI. Therefore, the results partially support H1.4.

Finally, the results do not reflect the influence of informal education through professional

references (PF) (work experience, volunteer work, family members with entrepreneurial

backgrounds). Therefore, the results do not support hypothesis H1.2.

4.2 M2 Results

The LRG analysis of M2 uses the responses to variable EI2: After completing this course, have

you considered starting your own social enterprise? (YES = 43.9%; NO = 56.1%).

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## 4.2.1. Direct relation of explicative variables in relation to EI2

At this stage, we added to the analysis the direct effect of EE on EI2, developing an LGR model which included all independent variables. The significant results of this model are summarized in Table 3.

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Insert Table 3 about here

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The Hosmer–Lemeshow test indicates a good fit of the model. Nagelkerke's R<sup>2</sup> test yields a result of 53.5%, which suggests that the predictor variables explain the variability of EI2 at M2. The model correctly categorizes 80.3% of EI2 answers, and its sensitivity to identify EI2 is thus considered high. It presents a high percentage of correct diagnoses (75.9%) and its specificity to detect students without EI2 is also high (83.8%).

Again, the model selects the responsibility variable (ES<sub>3</sub>), as with M1 (Table 2). This positive result and the size of the sample suggest an even more significant effect.

In addition, the results of the model reveal that proactive and collaborative methodologies that familiarize students with entrepreneurial environments have a significant positive effect on EI2, which partially confirms hypothesis H1.1. According to Iracheta et al. (2013), activities that foster active and dynamic observation, research and interaction with the ecosystem contribute to knowledge that prepares the student to face the risks and challenges posed by EI2. The results also suggest that informal education (PF), in particular combining studies with work experience, has a positive effect on entrepreneurial intention (Fayolle and Gailly, 2015). This partially supports hypothesis H1.2.

## 4.2.2. EE's possible moderating impact on the effect of the other explicative variables on EI2

In this instance, we developed a new LRG model that incorporates the direct effect of EE on EI2 and the interaction of EE variables with informal education (PF), entrepreneurial skills (ES) and age (DC) variables. The significant results of the model are summarized in Table 4.

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Insert Table 4 about here

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Nagelkerke's  $R^2$  yields a value of 82.9%, suggesting that the predictor variables predict the variability of EI2 at M2. The Hosmer–Lemeshow test suggests a good fit (0.948 $\geq$ 0.05). The model correctly categorizes 90.8% of answers and features high sensitivity (89.7%) and specificity (91.7%) values.

According to the model, two variables have a direct effect. First, *learning by doing* (the organization of social events) (B = 4.258), which is the variable with the greatest predicting value. This result provides some support for hypothesis H1.1. Secondly, age, which is also found to have a positive and significant effect, suggesting that older students are more likely to respond positively to the EI2 variable. This partially supports hypothesis H1.4.

On the other hand, the results support the idea that EE has a moderating effect on the impact of informal education (PF), personality traits (ES) and demographic characteristics (DC) on EI2. First, the evidence strongly supports hypothesis H2.1. The combination of informal education (PF)—students who have an entrepreneur relative—and EE—involving the organization of an event—has a negative effect (B = -2.986), which suggests that exposing students with previous experience with enterprises to our methodology decreases their entrepreneurial intention, perhaps because they are acquainted with the potential difficulties involved in running their own business. This is consistent with Zhang et al.'s (2014) conclusions. However, seminars imparted by social entrepreneurs have a positive and significant effect on the same

students' entrepreneurial intention (B = 2.662), and this result is in agreement with Hernán-Gómez (2005).

Secondly, some of the evidence indicates that certain personality traits (ES) are moderated by learning (EE), which supports hypothesis H2.2. On the one hand, students characterized by a high level of personal responsibility (ES<sub>3</sub>) are especially encouraged in their entrepreneurial intention by entrepreneur-led seminars (B = 3.743), whereas a better understanding of the entrepreneurial ecosystem makes them more cautious or reluctant to start their own business (B = -1.853). On the other hand, students characterized by a high level of self-knowledge (ES<sub>5</sub>) are encouraged by a more thorough understanding of the entrepreneurial environment (B = 2.470), in contrast to the organization of events, which has a negative effect on their entrepreneurial intention (B = -2.249), despite the fact that this type of activity is especially popular among this group of students.

Finally, the results also sustain hypothesis H2.3, as entrepreneur-led seminars moderate the relationship between age and EI2 negatively (B = -0.068), and this suggests that this sort of activity undermines entrepreneurial intention among older students.

### 4.3 Discussion

Based on the results yielded by the first model ( $M_1$ ), it can be argued that student responses are, prior to taking the course, based on aprioristic impressions and a general lack of understanding of the real difficulties of entrepreneurship (Nagelkerke's  $R^2 = 37\%$ ).

Entrepreneurship education must also show the major obstacles or barriers that social entrepreneurship must face. A very important difficulty is the scarce availability or limited access to financial resources, as well as the sustainability and independence of social venture in the long term (Santos et al., 2015). Another important obstacle is the lack of competencies and skills of human resources for the difficult dual-mission management in social

entrepreneurship (Costanzo et al., 2014). The lack of specific training in universities on social entrepreneurship aggravates the problem. Finally, strong public policy support is also needed, not only to foster social entrepreneurship, but also to improve knowledge and understanding of the concept of social entrepreneurship (Huybrechts and Nicholls, 2013; Pache and Santos, 2013).

In the context of Social Work degree students, these barriers to social entrepreneurship mainly affect women, given that they tend to have a greater presence in this type of studies. Consequently, entrepreneurship education can help foster social entrepreneurship initiatives which, in the field of social work, are more likely to be promoted by women.

Back to the results of the first model, they further suggest that significant differences exist in relation to personality traits and demographic characteristics, which is consistent with the previous literature on this subject. However, informal education was not found to play a role in our sample at this stage.

The results of the models that deal with responses after the teaching course (M<sub>2</sub> and M<sub>3</sub>) allow us to assess the teaching activities and their impact on the students' entrepreneurial intention, as well as their ability to ponder their answers critically. Our results suggest that the different activities conveyed by the model moderate the influence of the explicative variables. In general, most of the course's activities have a positive effect on entrepreneurial intention, especially those concerned with the organization of events.

Comparing the answers before and after the course suggests that the effect of the different teaching activities depends on the profile of the students. As such, a better understanding of the entrepreneurial environment fosters entrepreneurial intention among students with a higher level of self-knowledge and lower levels of flexibility and opportunism; the organization of events increases entrepreneurial intention among students with lower levels of self-reflection;

and, finally, entrepreneur-led seminars strengthen entrepreneurial intention among students with higher levels of responsibility.

Finally, our results also suggest that entrepreneurship education plays a moderating role. Specifically, the organization of events plays a moderating role with regard to informal education fostering entrepreneurial intention among students. This will allow to increase the impact of entrepreneurship education at university level and foster entrepreneurial spirit among the students.

These results could suggest the convenience of promoting entrepreneurial education in the Social Work degree, with teaching contents and methodologies adapted to social entrepreneurship, allowing the integration of the social welfare logic, the commercial logic and the public sector logic. Social workers can play a key role in social entrepreneurship and contribute to its growth, as a way to address societal problems (Berzin, 2012). Unfortunately, however, their presence to date has been very limited.

Nevertheless, it should also be noted that our results suggest that other teaching methodologies, such as entrepreneur-led seminars, have a negative effect. Entrepreneurship education presents the real difficulties and obstacles of entrepreneurship, and this seems to temper the personality traits of those students who before the course were characterized as innovative and capable of disruptive thinking, and their entrepreneurial intention is curbed accordingly.

However, the findings of this research should be cautiously considered, since the results have limited external validity for social work practice, due to the small sample size.

### 5. Conclusions

Social entrepreneurship has shown enormous potential to pursue opportunities which trigger social change and address social needs, by proposing innovative solutions (Nandan et al., 2015; Rey-Martí et al., 2016; European Parliament, 2015).

Entrepreneurial intention precedes individual decisions to start an enterprise, and consequently it has received much scholarly attention. According to Herman and Stefansecu (2017), two major types of factors determine entrepreneurial intention: contextual factors and personal background. Contextual factors include entrepreneurship education and informal education whereas personal background refers to personality traits and demographic characteristics.

However, with regard to entrepreneurship education, the different studies carried out to date present contradictory results. This has triggered an interesting debate, which demands further research (Hernández-Mogollón et al., 2018). Authors such as Roxas (2014) argue that entrepreneurship education could have a moderating effect.

Unfortunately, most research about entrepreneurship education has focused on engineering and business studies, and despite the abundant literature it is difficult to find studies that focus on other university degrees, such as, for example, the Degree in Social Work. To our knowledge, no previous studies exist that deal with the issue from this perspective. This is partly logical given that, despite the enormous potential of social entrepreneurship to address complex social issues, training in social entrepreneurship in this degree is quite limited (Nandan and Scott, 2013).

Consequently, social entrepreneurship is not usually the first career choice for social work students, who still today show great skepticism towards the possibility of bringing together enterprise and social services. This explains the significant underrepresentation of social workers in the field of social entrepreneurship.

However, the transformation of social welfare systems requires social workers to acquire and implement intrapreneurial and entrepreneurial skills (Nandan et al., 2015). Tan (2004) insists that it is necessary to redefine the role of social workers to include that of social entrepreneurs. In this study, we aimed to better understand which factors affect entrepreneurial intention of university students of Social Work. To this end, we studied the influence of personality traits,

demographic characteristics, informal education and entrepreneurship education on entrepreneurial intention. In addition, in view of the inconclusive results of previous research regarding entrepreneurship education, we further studied this variable, analyzing both its direct influence and the possible moderating effect on the rest of the factors.

Our results confirm that entrepreneurial intention depends on demographic characteristics (such as age) and personality traits (especially responsibility and self-knowledge). Similarly, the data indicate that educational activities related to the organization of events have a positive effect on entrepreneurial intention.

Our results also support the idea that entrepreneurship education could have a moderating effect on other variables, but only partially. Although our initial results present no empirical evidence for the influence exerted by informal education, further analysis suggests that the combination of university studies with professional activity can encourage a positive approach to entrepreneurship. But the moderating effect of entrepreneurship education is not always positive. We found that entrepreneurship education can discourage students who were characterized by high levels of personal responsibility from starting their own social enterprise, perhaps because it enables them to become totally aware of the risks that this decision entails, and of the need to increase their managerial competences. This also occurs with students who have entrepreneurial family members (informal education) and receive entrepreneurial education.

These results could have several implications for this field of study. First, social workers can be a key player in addressing social problems with innovative solutions, either as intrapreneurial within organizations, proposing improvements for a more effective and efficient use of resources, or as social entrepreneurs, launching new social ventures capable of addressing social needs in an economically viable and sustainable way (Nandan et al., 2015). However, Social Work degree students, in general, are unaware of the social work private

practice as a professional option. Second, the entrepreneurial intention of Social Work students depends on multiple factors, such as specific personality traits, certain demographic characteristics, such as age, and entrepreneurial education. Social workers who have received an entrepreneurial education represent a valuable human capital, whose potential has yet to be tapped. Therefore, entrepreneurship education adapted to the context of social entrepreneurship is crucial. These findings could serve to guide policy and practice in the field of social work, in particular on the need to promote entrepreneurship education in the Social Work degree. Third, however, the contradictions in the existing previous literature on the impact of entrepreneurial education on entrepreneurial intention cannot be resolved with a simple yes or no answer. Our results suggest that it is essential to take into consideration the type of teaching activity included in teaching programs since the impacts on the students' entrepreneurial intention vary substantially from activity to activity. The use of teaching methodologies that allow familiarization with entrepreneurial environments, as well as learning by doing (for example, the organization of social events), has shown a positive effect on the entrepreneurial intention of Social Work students. Nevertheless, it is very important that these teaching methodologies are carefully designed and adapted to social entrepreneurship, in order to integrate the social welfare logic, the commercial logic and the public sector logic. Thus, it will be possible to increase the impact of entrepreneurship education at university level and foster entrepreneurial spirit among the students.

Finally, it is necessary to recognize the limitations of this study, to be taken into account in future research. First, the small size of the sample does not allow to generalize the results obtained. Additionally, our hypotheses are only partially confirmed by our empirical results. Second, unfortunately, in this research the gender variable had to be discarded, due to the low proportion of men in the sample. Therefore, it was not possible to provide empirical evidence on the probable greater entrepreneurial inclination or intention of women in the context of

social entrepreneurship, as pointed out by Rosca et al. (2020). However, we agree with these authors that the relevance of gender in the field of social entrepreneurship is under-explored and requires further research, especially in studies of this type, focused on entrepreneurial intention in the field of social work, where women are probably overrepresented. Finally, another limitation of this study is that the sample only collects information on undergraduate Social Work students. The results obtained could have been different if the study had analyzed a larger sample, which would have also included higher-level Social Work students, for example, Master's degree students in Social Work. Possibly, these students would have shown a higher entrepreneurial intention or predisposition to social entrepreneurship compared to undergraduate students, given that the latter require more supervision in most areas of social work practice. This could explain a lower probability of considering the option of creating a social enterprise for the development of their professional work. Unfortunately, the University of Zaragoza does not offer Master's studies in Social Work at the moment. Therefore, it was not possible to consider a wider and more varied sample that would have undoubtedly contributed to enrich the results of this study. However, it is a very interesting direction for future research, taking into account that in other countries a higher level of university education is required to start a private practice.

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