

Influence of Training and Personality Traits on Entrepreneurial Intention and Behaviour

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Abstract – Entrepreneurial intention and its subsequent achievement in starting one's activity are processes subject to numerous internal and external influences, which should be studied in depth due to their great importance for local and global economies. The present research is holistic since it encompasses the entire process that generates entrepreneurial behaviour. On the one hand, the objective is to identify the influence training, personality traits, and other factors such as social norms and motivation have on entrepreneurial intention. The study further analyses the process between intention and final entrepreneurial behaviour and how the difficulties encountered moderate these relationships. To this end, a survey form was produced and assign to a sample of 456 undergraduate business graduates from different universities, and a structural equation model was estimated with relationships based on existing literature. The results revealed a strong influence of the factors analysed on entrepreneurial intention and a significant modulation of the difficulties encountered when the intention is transformed into entrepreneurial behaviour.

Keywords – entrepreneurship, entrepreneurial intention, training, personality traits, social norms, motivation, difficulties.

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1. Introduction

Entrepreneurship is considered a topic of great importance in the sustainable development of countries. Its importance in economic activity is the reason for many studies because it creates employment, increases competitiveness and dynamizes the economy [1],[2]. Recently, the Global Entrepreneurship Monitor (GEM) has reported that more than two-thirds of the adult population in efficient economies consider entrepreneurship an excellent option [3]. Likewise, there are pragmatic proof that young people are more disposed to start their activities as they show enthusiasm and energy and are more familiar with technological trends and advances [3], [4].

For this reason, the entrepreneurial profile and their behaviour have been boarding from different opinions and studied from contrasting social science approaches. Most studies focus on understanding and measuring people's intentions and their influence on entrepreneurial behaviour with dimensions such as psychological, social and demographic [5].

In several works on entrepreneurial intention and the impact of certain components on it, the model proposed by Ajzen and Fishbein of Planned Behavior is used. This model states that people's behaviour goes through an internal evaluation before action. Within evolution of the Theory of Planned Behavior (TPB), other factors that modulate behaviour are included, such as the subjective norm [6], [7]. The latter is the most frequently used reference framework on entrepreneurial intention.

There are, therefore, numerous studies that relate TPB to entrepreneurial intention. However, very few studies also include training for entrepreneurship and personality traits to explain entrepreneurial intention. Moreover, even fewer complete the analysis by delving into how intention is transformed into behaviour. The present study addresses both objectives. First, it analyzes the joint influence of studies related to entrepreneurship in higher education, personality traits, motivation and social

norms on entrepreneurial intention. Secondly, the effect of the most common possible adverse events on the transformation of intention into entrepreneurial behaviour is investigated.

In the authors' opinion, no studies analyze this topic thoroughly and holistically since the entire process is addressed from the moment the entrepreneurial intention is generated until this intention is transformed into entrepreneurial behaviour. This study can contribute to expanding knowledge of this unique process that is so important for all economies worldwide, mainly supported by the large number of entrepreneurs who make the leap every day to the labour market and favour its dynamization.

2. Literature Review

Several theories indicate that entrepreneurial activities increase with prior training on entrepreneurship and, therefore, a higher level of knowledge [8]. More specifically, some studies show that students participating in entrepreneurship training programs are 50% more likely to start their businesses [9]. Promoting entrepreneurial skills during the training period is essential to support the intrinsic restlessness of young students since entrepreneurship is not intrinsic to the individual but a discipline that can be learned [10].

Becker [11], states that investment in human educational capital results in increased productivity. Therefore, education in entrepreneurship can cultivate attitudes and, in addition, strengthen social norms increasing entrepreneurial intentions and behaviours [12], [13]. In quantitative studies, Martin et al. [14], found that between formal business studies and human capital achievements such as skills and intentions, there is a positive and significant association.

In this sense, the university has the appropriate platforms for students to develop the competencies and skills necessary for entrepreneurship [15]. This is why higher education institutions have introduced entrepreneurship training programs in their curricula [16], and studies analyzing the effect of such programs on entrepreneurial intention and behaviour have proliferated [17].

The TPB model argues that entrepreneurial intention depends on three dimensions: attitude, control over behaviour, and subjective norm [7]. On the one hand, attitude is a mental state composed of experiences and beliefs regarding the advantage one possesses to perform a specific action. If a person believes that having an entrepreneurial venture will be more favourable than working for a company, this person will have a firm intention towards entrepreneurship and a high probability of being inclined toward entrepreneurial behaviour. On the other hand, control over behaviour refers to the

individual's perception of his or her ability to control his or her behaviour towards a specific type of behaviour. In this case, it would translate into the ability to create or manage an enterprise and the degree to which he or she can exercise control over it. Finally, the subjective norm refers to the perceived social pressure to participate or not in behaviour. It is assumed to be determined by the total set of accessible normative beliefs about the expectations of essential referents [7]. For example, if an individual perceives that his or her main referents, such as parents or friends, think that he or she can become a successful entrepreneur, this facilitates his or her behaviour towards this activity.

Regarding the third dimension of TPB, Obschonka et al. [18] mention that these intentions are vaticinated by subjective norms particularly between people with high groupal affinity that are peculiar characteristics of a collective culture. Their results show the importance of identification with peer groups and social connection with them in the transition from intention to entrepreneurial behaviour. Likewise, in a study conducted with military personnel, there is also evidence of a correlation between subjective norms, self-efficacy, and attitudes when analyzing the intention to enlist [19].

Similarly, in research conducted in Indonesia, attitudes, subjective norms and self-efficacy were found to have a positive and significant influence on entrepreneurial intention [20]. Another example is the work of Arroyo et al. [21], who also studied how attitudes, entrepreneurship self-efficacy and subjective norms impact in the entrepreneurial intentions in a study sample taken in Mexico. The hypothesis of this research was confirmed by verifying that both subjective norms, business self-efficacy and attitudes influence the intention to undertake in a positive way. In this study, it was also shown that the greatest predictor of entrepreneurial intention was the subjective norms component. The authors explain this behaviour based on the cultural context of the study population.

As is evident from the above, subjective norm can be a determinant indicator of entrepreneurial behaviour. However, the strength of the relationship between psychosocial factors and personality factors on the intention of individuals towards entrepreneurship is not widely studied. In particular, empirical studies addressing these relationships are scarce [22].

Regarding personality factors, five traits can be defined as a result of empirical data-based research: extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience [23]. First, extraversion is characterized by the ability to interact with other people and includes traits such as activity, sociability, and assertiveness. Second, neuroticism is related to emotional stability. Its characteristic traits are fear, worry, depression, and

anxiety. Therefore, a high score in neuroticism will be indicative of emotional instability. Agreeableness manifests in behaviours of solidarity, cooperation, and consideration towards others.

On the other hand, the conscientiousness trait involves responsibility and reliability. People with high conscientiousness are methodical, organized, and meticulous. Moreover finally, openness to experience is a dimension that is associated with creativity, new learning, and interest in experiencing new sensations [24].

Digman [25] proposed the Five Personality Traits Model, and Goldberg [26] popularized this model using a personality test that allows obtaining information for the estimation of what was later called the Big Five Model (FFM) and which is considered today a complete classification of personality traits. In this sense, personality is defined as the set of individual differences of each person. These differences tend to show strong patterns of thoughts, feelings, and actions [27].

Each of these five broad personality domains is, in turn, made up of six specific traits in the personality assessment instrument called the NEO-PI-R (Neo Personality Inventory-Revised), a family of more common tools to operationalize the FFM [28]. For example, neuroticism is defined by the six traits of anxiety, anger-hostility, depression, self-consciousness, impulsivity, and vulnerability, while extraversion encompasses warmth, sociability, assertiveness, activity, emotion-seeking, and positive emotions.

Integrating personality and TPB appears to be a productive strategy for researchers. For example, in a 2-week prospective design using the NEO-FFI, which is a shortened version of the NEO-PI-R and consists of 60 items, extraversion and conscientiousness were found to moderate the effect

of intention on behaviour [29]. In addition, the authors suggested that temperamental factors have to do with activity, positive affect, sociability, and arousal-seeking motivated individuals to score higher on extraversion to follow through with their behavioural intentions. However, those scoring higher on conscientiousness might be more motivated to pursue and fulfil their behavioural intentions because they strive more challenging to achieve goals and are more self-disciplined. On the other hand, there is empirical evidence that extroversion, agreeableness, conscientiousness, and openness to experience positively influence individuals' entrepreneurial intention, whereas neuroticism showed a significantly negative relationship with it [30].

Finally, this paper has considered the variables that may moderate entrepreneurial intention and behaviour. Specifically, we have considered how the difficulties that an entrepreneur may face in moving from intention to action may determine the outcome of the process. These barriers vary depending on the country, culture, and type of venture, and about 25 different barriers have been identified [31]. However, the most common aspects are financing, training, family support, legal requirements, marketing, location, and product type [32]. In the same vein, a study conducted in China with university graduates concluded that difficulties in entrepreneurship negatively affect the transition between entrepreneurial intention and entrepreneurial behaviour [33].

Based on the above, there is great interest in understanding entrepreneurial intention and the influence of entrepreneurship training, individual behaviour and personality traits on it. Based on all this and from the main objective of this work, the following hypotheses are present in Figure 1.

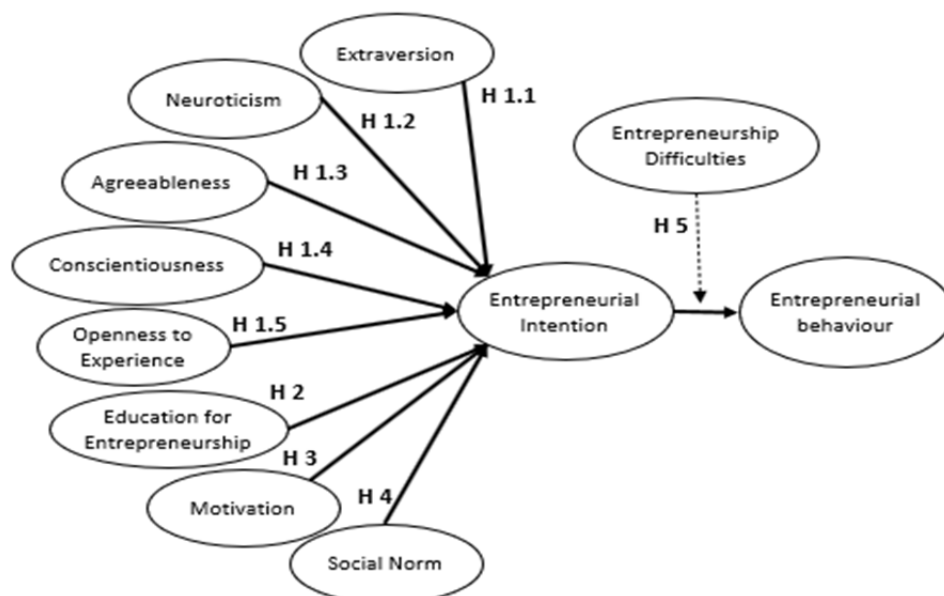


Figure 1. Theoretical Model

Hypothesis 1 (H1). Personality traits play a central role in explaining entrepreneurial intention. This hypothesis can, in turn, be broken down into five more specific hypotheses for each personality trait. These would be as follows:

Hypothesis 1.1 (H 1.1). Extraversion (Extraver) directly and significantly influences entrepreneurial intention (IntEmp).

Hypothesis 1.2 (H 1.2). The influence of Neuroticism (Neurot) on entrepreneurial intention (IntEmp) is significant and inverse.

Hypothesis 1.3 (H 1.3). Agreeableness (Amabil) positively and significantly influences entrepreneurial intention (IntEmp).

Hypothesis 1.4 (H 1.4). Conscientiousness (Concien) influence on entrepreneurial intention (IntEmp) is also significant. This relationship is direct.

Hypothesis 1.5 (H 1.5). Openness to experience (Apert) significantly and directly influences entrepreneurial intention (IntEmp).

Hypothesis 2 (H 2). Entrepreneurship-related training (RelEst) is a significant factor in the causal relationship of entrepreneurial intention (IntEmp). In addition, more extensive training in these aspects translates into a greater entrepreneurial intention.

Hypothesis 3 (H 3). Motivation (Motiv) positively and significantly influences entrepreneurial intention (IntEmp).

Hypothesis 4 (H 4). Social Norms (NormSoci) positively and significantly influence entrepreneurial intention (IntEmp).

Hypothesis 5 (H 5). Difficulties in entrepreneurship (Dificult) moderate the relationship between entrepreneurial intention (IntEmp) and entrepreneurial behaviour (CodEmp).

Based on all these hypotheses and the review carried out in the previous section, a theoretical model has been proposed that will allow us to test the veracity of all the statements made.

3. Methodology

3.1. Instruments

The data collection instrument was elaborated, except for section 1, to measure each item rated with a 7-level Likert scale, in which a rating of one was set as not at all agree and seven as strongly agree with the statements in the questionnaire. The questionnaire was based on the literature review and the objective of this work. It has been divided into seven sections:

Section 1: Sociodemographic factors such as gender, age, marital status and employment status of the respondents were taken into account. In addition, it was asked whether they had dependent children.

Section 2: This section collected information on entrepreneurial intention. The five items in this section were taken from the survey conducted by Liñan [12] and Salem [34]. These include questions on availability of effort, career goals, intention to start their own business, and starting a business.

Section 3: Entrepreneurship education. The questions are focused on revealing information about studies related to entrepreneurship in progress or entrepreneurship that he/she would like to start. In case it was already underway, it was asked if the studies have allowed him/her to become an entrepreneur and if the knowledge acquired has been helpful for entrepreneurship [35].

Section 4: Social norms and motivation. This section referenced the survey conducted by Laguía [36]. The six questions address issues about the perceived value of entrepreneurial activity in their nuclear family, group of friends, and community. In addition, it was asked whether there was an entrepreneurial culture in their region and whether an entrepreneurial activity is valued in their country.

Section 5: For the personality variables, an instrument called Mini IPIP or IPIP R was used about the NEO PI-R, which is one of the most consistent instruments in evaluating personality and its reduced version NEO-FFI. The IPIP-R version was developed by Cupani et al. [37], in order to simplify the number of items without losing psychometric rigour and to decrease response bias such as acquiescence bias, which refers to the tendency of people to agree with positive statements regardless of the content of the statement [38]. The variables measured were: Extraversion (4 items), Neuroticism (5 items), Agreeableness (4 items), Conscientiousness (6 items) and Openness to experience (4 items). The instrument was also used in other personality research [39], [40].

Section 6: Entrepreneurial behaviour. This section inquires about entrepreneurial behaviour. It is expressed as a set of behaviours exhibited by an individual that allows him/her to innovate or improve existing ideas to market a product or service in a competitive market effectively. The questions focused on whether he/she had had entrepreneurial experience and whether he/she would be entrepreneurial again [41].

Section 7: Difficulty in entrepreneurship. In this section of the instrument, questions were asked about some factors that can be considered barriers to entrepreneurship or that represented a difficulty in starting a business. These items will result negatively in the transition between entrepreneurial intention and entrepreneurial behaviour since the higher the value of difficulty to entrepreneurship should be reflected in lower entrepreneurial behaviour intention [42], [43]. The dimensions and scale used are shown in Table 1.

Table 1. Description of the scale used

Dimensions	Indicators	References
Extraversion (Extraver)	(RP_E01) Vitality, energy, (RP_E02) Disinhibition, spontaneity, (RP_E03) Copes with conflicts, (RP_E04) Authenticity.	[37], [44]
Neuroticism (Neurot)	(RP_N01) Fear, anxiety, (RP_N02) Worry, (RP_N03) Stress breakdown, (RP_N04) Anxiety, (RP_N05) Weak character.	[37]
Agreeableness (Amabil)	(RP_A01) Considerate, (RP_A02) Friendly, (RP_A03) Helpful, (RP_A04) Respectful.	[26]
Conscientiousness (Concienc)	(RP_C01) Persistent, (RP_C02) Responsible, (RP_C03) Concentrated, (RP_C03) Focused. (RP_C03) Concentration, (RP_C04) Planning, (RP_C05) Reliable, (RP_C06) Competent.	[26]
Openness to Experience (ApertExp)	(RP_O01) Willingness, (RP_O02) Exploratory, (RP_O03) Involved, (RP_O04) Creative.	[26]
Education for Entrepreneurship (RelEst)	(EE01) University studies, (EE02) Profession, (EE03) Knowledge, (EE03) Knowledgeable.	[14]
Social Norm (NormSoci)	(NS_CN01) Family nucleus, (NS_CN04) Country, (NS_CN05) Risk, (NS_CN06) Business owner	[22], [36]
Motivation (Motiv)	(NS_CN02) Valuation by others, (NS_CN03) Favorable culture	[45], [46]
Entrepreneurial Intention (IntEmp)	(IE01) Effort, (IE02) Professional objective, (IE03) Goal of entrepreneurship, (IE04) Decision to undertake, (IE05) Planning for entrepreneurship.	[12], [13]
Entrepreneurial Behavior (CodEmp)	(EX01) Appraisal of entrepreneurship, (EX02) Would undertake again, (EX02) Would do it again.	[33]
Entrepreneurship Difficulties (Dificult)	(DE_01) Financial, (DE_02) Training, (DE_03) Profession, (DE_04) Family support, (DE_05) Legal requirements, (DE_06) Marketing, (DE_07) Location, (DE_08) Product.	[43]

3.2. Sample

The fieldwork lasted sixty days. The survey form was completed virtually and distributed to a base of 1,500 economics and administration graduates from three private and three state universities in the coastal region of Ecuador. Contact information was requested from the departments and graduate follow-up offices of these universities. The participants collaborated voluntarily with the survey and the anonymity of their answers was guaranteed. Of this population of 1,500 potential participants, 458 responded with completed forms, of which only two were discarded due to evident inconsistencies in the answers. Therefore, in total, we worked with a sample of 456 individuals for the subsequent processing and analysis of the data.

It can be observed that, of the respondents, 28.51% are women and the rest are men, percentages similar to those found among students in these grades. It is also observed that the majority are young, under 25 years of age (65.35%), with single marital status (83.11%). Concerning whether they have children, the majority affirm that they do not (86.40%).

On the other hand, and as was sought in the sample design process, approximately half of the respondents (47.59%) work independently, so it is expected that they will have transformed their intention into entrepreneurial behaviour.

Table 2. Demographic data of the study sample

Variable	Values	Frequencies	Percentage
Gender (G01)	1. Female	130	28,51%
	2. Male	326	71,49%
Age (ED01)	1. [<25]	298	65,35%
	2. [25-30]	79	17,32%
	3. [30-35]	49	10,75%
	4. [35-40]	25	5,48%
	5. [>40]	5	1,10%
Marital status (EC01)	1. Single	379	83,11%
	2. Free unión	40	8,77%
	3. Marriage	35	7,68%
	4. Divorced	2	0,44%
Children (H01)	1. Yes	62	13,60%
	2. No	394	86,40%
Employment status (SL01)	1. Unemployed	61	13,38%
	2. Employed	36	7,89%
	3. Self-employed (own business)	19	4,17%
	4. Independent (with partners)	198	43,42%
	5. Others	142	31,14%

3.3. Statistical Analysis

The theoretical model was estimated through structural equations with partial least squares methodology (PLS-SEM). The previously defined hypotheses related to the existence of direct causal

relationships between the independent constructs of the model and entrepreneurial intention and the one referring to the moderating effect that difficulties exert on the relationship between entrepreneurial intention and behaviour were tested. The constructed model validation was carried out through the study of composite reliability, convergent and discriminant validity, and measures of its goodness of fit. All this analysis was carried out using Warp-PLS 7.0 software (ScriptWarp Systems, P.O. Box 452428, Laredo, Texas, 78045 USA).

4. Results

Once the data collection and information processing process has been carried out, the results are presented for analysis. First, the validation process of the proposed model will be carried out, and then the verification or rejection of each of the hypotheses

previously stated will be tested through the significance of the structural coefficients of said model.

4.1. Model Validation

Table 3 shows the estimated structural coefficients of the proposed model for each of the observed variables (Figure 1). According to Carmines and Zeller (2012), these coefficients must have a value greater than 0.7 to verify convergent and discriminant validity; on the other hand, item loadings with other constructs are less than 0.2, which is why they have been omitted from the table due to their length. All coefficients are greater than 0.7 except for seven items of the construct Difficulty in the undertaking, five of which have values greater than 0.6. It was decided to keep these items to include all the cases considered.

Table 3. Factorial loadings of the constructs defined in the proposed model

Latent variables	Observed variables	Standardized coefficients	Latent variables	Observed variables	Standardized coefficients
Extraversion	(RP E01)	(0.769)***	Education for Entrepreneurship	(EE01)	(0.865)***
	(RP E02)	(0.730)***		(EE02)	(0.819)***
	(RP E03)	(0.839)***		(EE03)	(0.839)***
	(RP E04)	(0.878)***	Social Norm	(NS CN01)	(0.745)***
(RP N01)	(0.787)***	(NS CN04)		(0.883)***	
(RP N02)	(0.854)***	(NS CN05)		(0.905)***	
(RP N03)	(0.798)***	(NS CN06)		(0.550)***	
Neuroticism	(RP N04)	(0.636)***	Motivation	(NS CN02)	(0.890)***
	(RP N05)	(0.722)***		(NS CN03)	(0.890)***
	(RP A01)	(0.910)***	Entrepreneurial Intention	(IE01)	(0.871)***
(RP A02)	(0.928)***	(IE02)		(0.911)***	
(RP A03)	(0.921)***	(IE03)		(0.910)***	
(RP A04)	(0.917)***	(IE04)		(0.906)***	
(RP C01)	(0.842)***	(IE05)		(0.909)***	
Conscientiousness	(RP C02)	(0.804)***	Entrepreneurial behavior	(EX01)	(0.881)***
	(RP C03)	(0.870)***		(EX02)	(0.881)***
	(RP C04)	(0.860)***	Entrepreneurship Difficulties	(DE 01)	(0.669)***
	(RP C05)	(0.835)***		(DE 02)	(0.642)***
	(RP C06)	(0.868)***		(DE 03)	(0.434)***
	(RP O01)	(0.936)***		(DE 04)	(0.592)***
(RP O02)	(0.903)***	(DE 05)		(0.606)***	
(RP O03)	(0.865)***	(DE 06)		(0.605)***	
Openness to Experience	(RP_O04)	(0.886)***	(DE 07)	(0.684)***	
			(DE 08)	(0.722)***	

On the other hand, Table 4 shows the composite reliability at the construct level, calculating the composite reliability indexes and Cronbach's alpha coefficient for each of the latent variables, verifying that the values are equal to or greater than 0.7[47]. In this case, all the values exceed this measure. In the same table, the mean variance extracted (AVE) has

been measured using convergent validity. Measures above 0.5 demonstrate convergent validity, which means that the indicators explain more than half of the variability of the constructs [48]. All values are above this value except for the construct Difficulty, which has a high Cronbach's alpha and composite reliability value but a slightly lower value for the average variance extracted.

Table 4. Composite reliability and Cronbach's alpha of the estimated model

Latent variables	Composite reliability	Cronbach's alpha	AVE
Extraversion	0.874	0.711	0.776
Neuroticism	0.956	0.942	0.812
Agreeableness	0.880	0.818	0.649
Conscientiousness	0.873	0.817	0.582
Openness to Experience	0.956	0.939	0.845
Education for Entrepreneurship	0.938	0.921	0.717
Social Norm	0.943	0.920	0.806
Motivation	0.879	0.793	0.708
Entrepreneurial Intention	0.884	0.737	0.792
Entrepreneurial behaviour	0.860	0.778	0.614
Entrepreneurship Difficulties	0.834	0.772	0.390

The measures shown in Table 5 were calculated (the goodness-of-fit threshold values are shown in the right column) to verify the goodness-of-fit of the proposed model.

After the constructs have been evaluated and validated, it is possible to ratify that the results obtained in the field process are acceptable and their validity and relevance are rightly justified.

4.2. The Contrast of Research Hypotheses

The contrast with the limiting probability of each causal relationship was carried out to evaluate the research hypotheses. Table 6 shows the standardized structural coefficients that indicate the direction and intensity of the causal relationships considered in the previously described model. As can be seen, all the proposed hypotheses are supported by the analysis except those that impose that neuroticism and motivation are predictors of entrepreneurial intention. However, the lack of significance of the causal relationship between neuroticism and entrepreneurial intention hides a more complex behaviour, as we will see below.

Therefore, it is possible to affirm that agreeableness and extraversion, but mainly openness to new experiences and conscientiousness, are determining factors in the entrepreneurial intention of university graduates.

The specific training received in this field of work also has a strong causal relationship with entrepreneurial intention. From this, we can deduce the great importance of this type of study in the formation of the future entrepreneurial intention of university students.

Social norms and, therefore, the pressure perceived by the respondent from his immediate environment significantly influence his entrepreneurial intention, although this relationship is less intense than others. It is revealed by a structural coefficient of less than 0.1.

Table 5. The goodness of fit of the estimated model

Average path coefficient (APC)	0.183	P < 0,001
Average R-squared (ARS)	0.599	
Average adjusted R-squared (AARS)	0.597	
Average block VIF (AVIF)	4.325	acceptable if less than or equal to 5, preferable if less than or equal to 3.33
Average full collinearity VIF (AFVIF)	3.450	
Tenenhaus Gof (GoF)	0.658	small > or = 0,1 medium > or = 0,25 large > or = 0,36
R-squared contribution ratio (RSCR)	0.996	acceptable if greater than or equal to 0,9 preferable equal to 1
Sympson's paradox rate (SPR)	0.900	acceptable if greater than or equal to 0,7 ideally equal to 1
Statistical suppression rate (SSR)	1.000	acceptable if greater than or equal to 0,7
Nonlinear bivariate causality direction rate (NLBCDR)	1.000	
Standardized root mean squared residual (SRMR)	0.090	acceptable if less than or equal to 0,1
Standardized mean absolute residual (SMAR)	0.070	
Standardized chi-squared with 1080 degrees of freedom (SChS)	13.888	P less than 0,001
Standardized threshold difference count rate (STDCCR)	0.973	acceptable if greater than or equal 0,7, preferable equal to 1
Standardized threshold difference sum rate (STDSR)	0.903	

Finally, and addressing the last aspect of the objectives set by this research, it is formally and quantitatively confirmed that the difficulties encountered by the potential future entrepreneur negatively moderate the relationship between entrepreneurial intention and entrepreneurial behaviour. It indicates that the increase in the difficulties encountered reduces the intensity of the relationship between both aspects.

As a summary of all the results obtained, and in response to the objectives set out in this research, it can be stated that personality traits, the training received, and the personal context in which the person finds him/herself are explanatory sources of the generation of entrepreneurial intention. In addition, the process by which the person transforms the entrepreneurial intention into a behaviour is strongly influenced by the difficulties in carrying out this undertaking.

Table 6. Results of the hypothesis tests

	Hypothesis	Path coefficient	Values P	Supported
H 1.1	Extraver-IntEmp	0,111	0,008	YES
H 1.2	Neurot-IntEmp	-0,026	0,292	NO
H 1.3	Amabil-IntEmp	0,089	0,028	YES
H 1.4	Concienc-IntEmp	0,424	<0,001	YES
H 1.5	ApertExp-IntEmp	0,481	<0,001	YES
H 2	RelEst-IntEmp	0,137	0,001	YES
H3	Motiv-IntEmp	0,037	0,212	NO
H 4	NormSoci-IntEmp	0,091	0,025	YES
H5	Dificult -IntEmp-CodEmp	-0,157	<0,001	YES

Next, the relationship between neuroticism and entrepreneurial intention is analyzed in detail for the existence of behavioural changes according to the measured intensity of this personality trait.

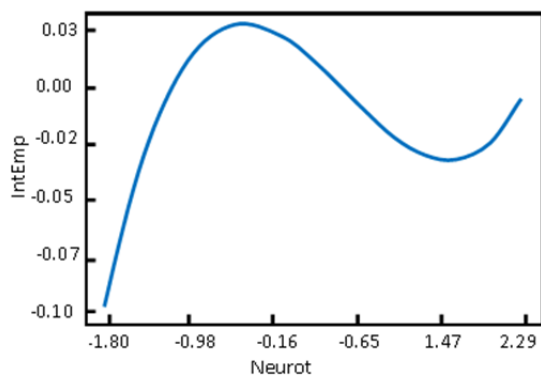


Figure 3. Relationship between neuroticism and entrepreneurial intention

As seen in Figure 3, when neuroticism is low, the relationship with entrepreneurial intention is positive, so a slight increase in low values of neuroticism is associated with greater entrepreneurial intention. However, when the degree of neuroticism is moderate, this relationship is reversed, so an increase

in neuroticism is associated with a lower entrepreneurial intention. At very high values, the relationship seems to become positive again.

Similarly, it is interesting to analyze the influence of entrepreneurial difficulties on the relationship between entrepreneurial intention and entrepreneurial behaviour. It can be seen very graphically in Figure 4. A direct relationship between entrepreneurial intention and entrepreneurial behaviour is observed when the difficulty encountered is low. Therefore, in this case, an increase in entrepreneurial intention translates into an increase in the likelihood of becoming an entrepreneur. It may be due to the impossibility of carrying out entrepreneurship even when the intention is high. However, when the difficulties encountered are high, there does not seem to be an association between entrepreneurial behaviour and the intention to undertake.

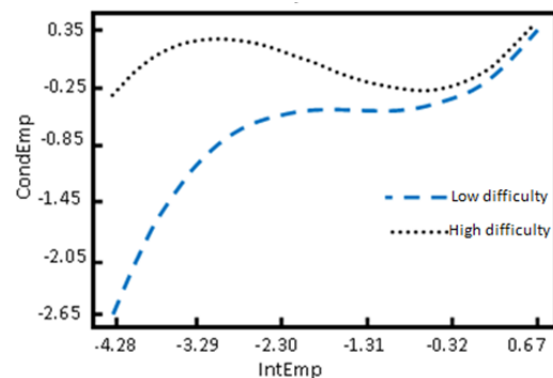


Figure 4. Influence of the difficulties encountered on the relationship between entrepreneurial intention and behaviour

5. Discussion

The objectives of this research were to determine which personality traits and the degree of entrepreneurship training positively influence entrepreneurial intention and to explain their relationship with entrepreneurial behaviour when modulated by barriers that hinder the activity of starting a business.

Several studies have provided empirical evidence that entrepreneurial intention is a robust predictor of entrepreneurial behaviour. However, most of them were conducted on high school and university students with little experience in the field of entrepreneurship, and there are few studies in which surveys are applied to university graduates with professional experience. Based on the results obtained, the most representative findings are detailed below and compared with the results of previous studies.

Regarding hypothesis 1.1, extraversion positively and significantly influences entrepreneurial intention. It was found that as extraversion increases,

entrepreneurial intention also increases. This result aligns with previous studies [49], [50], [51]. In contrast, hypothesis 1.2, which proposes that neuroticism inversely and significantly influences entrepreneurial intention, is not supported by the proposed model because a change in this relationship with entrepreneurial intention is evidenced when neuroticism levels are elevated. It, in a way, coincides with the results of other studies [30], [29] where positive and significant relationships of personality traits with entrepreneurial intention were also found, except for neuroticism [50]. The reason for this is because neuroticism is related to anxiety, worry, and stress.

Therefore, individuals who score high on this trait present a biased view of adverse events.

Hypothesis 1.3, which mentions that agreeableness positively and significantly influences entrepreneurial intention, is also supported by this study. Agreeableness is considered a personality trait in which people are cooperative, friendly, sympathetic, and polite in their dealings. People with high levels of agreeableness show better prosocial behaviours. In this research, agreeableness presents a positive relationship but is not as significant as other personality traits such as conscientiousness, openness to experience or extraversion [49], [50], [52].

On the other hand, conscientiousness is a personality trait associated with impulse control and whose behaviour focuses on goal attainment. People with high conscientiousness are organized and plan their activities. In contrast, people with low conscientiousness do not complete tasks and generally do not get along well with defined structures and schedules [50]. This work confirms the positive relationship that exists between entrepreneurial intention and conscientiousness. The conscientiousness trait in the results presented the second-best score in significance.

Another of the personality traits analyzed, openness to experience, is associated with the eagerness to learn and experience new situations. People with a high level of openness are more prone to risk. In contrast, those who score low on this trait are people who find it difficult to leave their state of comfort and prefer more traditional and safe approaches to life. It seems clear that people whose combined traits of creativity are open to trying new changes and experiences may have a high desire to start a business, so it is more likely that they will start a business in the future. In addition, these people have a high inquisitive spirit for their environment, as they enjoy learning and experiencing new challenges.

This research confirms that openness to experience positively and significantly influences entrepreneurial intention as it obtained the highest

structural coefficient value, so it can be stated that this trait is the most influential in entrepreneurial intention. These results align with previous studies [49], [50], [37].

On the other hand, hypothesis 2, which indicates that the performance of studies related to entrepreneurial activity has a positive and significant influence on intention, was also verified since they showed a direct and positive relationship. Liñan et al. [53] mention that stimulating entrepreneurship through study can increase entrepreneurial intention levels. They also note that individuals who already have an entrepreneurial intention and have identified an opportunity can do so without needing this study. However, the knowledge acquired through training can make it easier for these ventures to last over time because, in this case, entrepreneurs have a more detailed understanding of the operation and environment in which the business is developed [14]. This result is of great importance as it justifies the need to increase training that motivates entrepreneurship and the necessary tools for the future entrepreneur to function appropriately in the activity for which he/she has opted.

Concerning hypothesis 3, social motivation has a positive and significant influence on entrepreneurial intention, but it was found that it does not represent a significant relationship. Social motivation refers to the human need to interact with others and be accepted by them. These interactions are social behaviours directly or indirectly addressed to others to solicit a response [45].

The social norm is a type of reasoning that relates to the pressure from the environment that people identify when performing a behaviour, i.e., the idea or way an individual should behave. In this research, social norms positively influence entrepreneurial intention as it presents a significant relationship, which means that the higher the level of perceived social norms, the higher their entrepreneurial intention [54], [22]. Therefore, the social pressure the entrepreneur perceives is a relevant factor to consider in modelling entrepreneurial intention.

Regarding entrepreneurial intention and its influence on entrepreneurial behaviour, it is evident that there is a positive and significant relationship consistent with Kong [33]. In a research work conducted with graduate students from universities in China, it was concluded that entrepreneurial intention is positively related to entrepreneurial behaviour when the moderating variable of fear of failure was very low. In cases where the fear of failure was high, it prevented students from adopting positive entrepreneurial behaviour. Furthermore, from the previously conducted analysis of the moderator effect, it can be stated that difficulties affect the relationship between entrepreneurial intention and

entrepreneurial behaviour. It could be deduced from this that when there are great difficulties for entrepreneurship, the intention has less relevance in the entrepreneurial behaviour carried out, so it is the difficulties encountered that determine to a greater extent, the possibility of entrepreneurship.

6. Conclusions

This research examined the relationship between personality traits, social norms and higher education related to entrepreneurship and entrepreneurial intention, also considering the influence of entrepreneurial difficulties on the transition between entrepreneurial intention and entrepreneurial behaviour.

Concerning personality traits, all of them, except neuroticism, positively influence entrepreneurial intention at different levels. In this work, the results confirmed that the personality traits that have the most significant impact on entrepreneurial intention are conscientiousness and openness to experience. In contrast, although they positively affect entrepreneurial intention, traits such as extroversion and agreeableness are not highly significant.

The results also showed that the relationship between entrepreneurial intention and entrepreneurial behaviour is moderated by the difficulties that entrepreneurs identify. This empirical research finding supports the existing theoretical assumption and shows how this entrepreneurial behaviour changes when barriers exist.

One of the most relevant contributions of this study is the significant relationship between the completion of higher education directly related to entrepreneurial activity and intention. The results confirmed a strong positive association between these two constructs, which would justify the great importance of introducing in a general way in the curriculum training that motivates and pushes students in this professional outlet, which is essential for the productive sector of society.

In addition to contributing to a broader understanding of the role of personality type and its influence on entrepreneurial intention and subsequent behaviour, this research also brings recommendations for educational institutions. As more is discovered about entrepreneurial intention and its antecedents, higher education institutions will possess more tools that will enable them to take steps to increase the rate of self-employment in accessing the labour market and reduce the failure rate of new businesses created by entrepreneurs with a university education. The desired situation is that the intention becomes action and that the person does not move away from a continuous learning environment from which a large part of university graduates avoid staying. In turn, it

will result in more successful entrepreneurs, leading to the creation of new work activities that will boost local economies. In addition, this situation may be more attractive to angel investors who are individuals with capital and experience who are looking to invest in new and growing ventures. It could reduce uncertainty when starting a business since, as the results showed, the perception of the difficulty of entrepreneurship moderates the intention towards entrepreneurial behaviour.

The academic preparation performs a crucial role in pattern the point of view of future professionals because it allows them to channel their intentions better to start new and innovative businesses by being able to identify entrepreneurial opportunities, as well as allowing them to face better the possible existing barriers that are inherently associated with the risk of entrepreneurship.

7. Limitations and Future Lines of Research

As a limitation of this study, it is necessary to point out that the sample of graduates used belonged to administrative careers in some universities. The analysis could be improved by considering postgraduate studies and other careers or specializations. It could offer a future line of research to check whether the type of university degree influences entrepreneurial intention as a moderating variable. A comparative gender study could also be done to determine if there are differences in entrepreneurial intentions.

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