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Determinants of Entrepreneurial Intention among University Students in Algeria: a case study Medea University's students

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ARTICLE INFO ABSTRACT

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1. Introduction

Our study aims to determine the factors that affect the entrepreneurial intention of university students. In order to reach this goal, the research was divided into two main parts: The first was a theoretical aspect of entrepreneurial intention determinants. In the second, a questionnaire survey was handed out to 146 students from Medea University, after that, the data was analyzed using SmartPLS 3 program. The results of the identified Structural Equation Model (SEM) show that the main determinant of entrepreneurial intention is the attitude towards entrepreneurship, while showing that there is no statistically significant effect of personality traits, entrepreneurial education and training, and self-efficacy on entrepreneurial intention.

With the limitations of traditional jobs, it was necessary to move towards entrepreneurship because of its great importance in the economy and its role in creating job opportunities, raising economic growth and creating wealth. In the past three decades, and following the effects of the global crisis that left high rates of unemployment and inflation, the interest of authors and researchers increased in entrepreneurial intentions and their determinants. Therefore, governments seek to direct the youth to entrepreneurial work, especially university students, because they possess several characteristics that distinguish them from the rest of society. To study, analyze and understand the determinants of entrepreneurial intent, several models have been developed, however the Entrepreneurial Event Model and the Theory of Planned Behavior are often used to explain entrepreneurial intentions. Algeria, like other countries, seeks to develop entrepreneurial activities.

This study was conducted with the aim of knowing the most important determinants that affect university students in making the decision to establish a special project in the future.

Our problematic therefore was formulated as follows:

What are the determinants that enhance the entrepreneurial intention of students at Medea University?

Based on the variables used in the questionnaire, and in order to orient this research, we were able to identify and formulate the following research hypothesis:

H1: among university students, personality traits has a positive impact on entrepreneurial intention

H2: among university students, training and entrepreneurial education have a positive impact on entrepreneurial intention

H3: among university students, self-efficacy has a positive impact on entrepreneurial intention

H4: among university students, entrepreneurial attitude has a positive impact on entrepreneurial intention

The topic of our research has a great importance in knowing the factors that strengthen university students' desire to set up in their own projects.

2. FIRST PART : THEORITICAL CONCEPTS

2.1. Entrepreneurial intention.

Based on the premise of intent as the single best predictor of ultimate behavior, there has been much attention in entrepreneurial intentions, there are many definitions of entrepreneurial intention such as: the entrepreneurial intention "is the desire to start a business at some point in the future" (Panagiotis Piperopoulos, Dimo Dimov, 2014, p. 2). Entrepreneurial intention reflects the state of mind that prompts people to choose freelance work rather than choosing traditional salary based work (Gerba, 2012, p. 261). The entrepreneurial intention of university students indicates, "the conscious awareness and conviction on the part of the individual that they intend to establish a new business enterprise and plan to do so" (N. Arranz, M.F. Arroyabe, J.C. Fdez de Arroyabe, 2018, p. 3)

From the previous definitions, entrepreneurial intention can be defined as the tendency of an individual to create a personal enterprise in the future rather than traditional jobs because this latter is limited in terms of abundance and return.

In order to analyze entrepreneurial behavior, in the 1980s and 1990s, six main models were developed in this field: the Entrepreneurial Event Model (Shapero, 1982), Theory of Planned Behavior (Ajzen, 1991), Entrepreneurial Attitude Orientation (Robinson), Stimpson, Huefner, & Hunt, 1991), Intentional Basic Model (Krueger & Carsrud, 1993), Entrepreneurial Potential Model (Krueger & Brazeal, 1994) and Davidsson Model (Davidsson, 1995a, b).

The two dominant models used to explain the entrepreneurship phenomenon are: entrepreneurial event model and theory of planned behavior TPB. Research findings show that both intention-based models constitute valuable tools for understanding business-venturing process with nascent entrepreneurs' samples despite of some limitations on explaining the role of certain constructs.

2.1.1. Entrepreneurial event model

This model was developed by Shapero and Sokot to identify the interplay of cultural and social factors that could lead to the creation of company by influencing the individual's perceptions. This model is often used by previous researchers in the analysis of entrepreneurial activities as the results support this model as a consistent tool for measuring entrepreneurial intention (Patricia Jameel Z. Arellano, Juvilyn C.Dolor, and Joana Fe A. Española., 2014).

This model considers business creation as an event that can be explained by the interaction of initiatives, capabilities, management, relative independence, and risks. The personal choice to start a new project depends on three elements: (a) perception of desire, (b) propensity to act, and (c) perception of feasibility (Marribel Guerrero, Joseph Rialp, David Urbano, 2008, p. 37)

- The Perceived Desirability (PD) is the product of the individual's perceptions of entrepreneurship desirability affected by personal attitudes, values, and feelings.
- The Perceived Feasibility (PF) is related to the individual's perception of available resources. In other words, it measures the individual's personal perceived ability to carry out certain behavior.
- The Propensity to Act (PTA) is the personal disposition to act on one's decisions, reflecting volitional aspects of intention.
- 2.1.2. Theory of planned behavior

The TPB, a concept arising from the psychology field, represents one of the most popular models used for predicting specific individual behaviors. The TPB identifies three antecedents of behavioral intention: attitude toward behavior, subjective norms, and perceived behavioral control (Rosangela Feola, Massimiliano Vosci, Antonio Botti, Roberto Parente, 2017, p. 3). According to its authors, the entrepreneurs form the intention to create a new business, being influenced by socio-cultural factors, and then, if this intention is strong enough, they carry through the action (Rui Fragoso, Weimer Rocha-Junior, Antonio Xavier, 2019, p. 3).

2.2. The main determinant factors of entrepreneurial intention

2.2.1. Personality traits and entrepreneurial intention

A person's personality traits can directly affect many entrepreneurial activities including intent to start a business, succeed in business, and increase business growth.

These entrepreneurial characteristics are referred to as individual entrepreneurial values. Many studies and writings explain the relationship between the entrepreneurial values that students possess with the aim of their participation in entrepreneurship. The entrepreneurial characteristics demonstrated in the previous studies are referred to as the entrepreneurial values that students possess. These features include optimism, innovation, risk-taking, competitiveness, independent, innovative, risk taking, creativity and innovation, leadership, risk-taking, hard work, initiative, self-motivation, predictability, making good decisions and swiftness to act with great commitment. These characteristics are related to the entrepreneurial values that each student possesses (Suffian M.Z.A, Rosman M, Norlaila I, Norizan A, Hasnan M.T.M.T, 2018, p. 418).

2.2.2. Training and entrepreneurial education and entrepreneurial intention

Perceived educational support has been recognized as a determinant of entrepreneurial intent. Previous researchers agree that entrepreneurship education is an effective way to provide students with the necessary knowledge about entrepreneurship (Sylvia Nabila Azwa Ambad, Dayang Haruyani Diana Ag Damit , 2016, p. 109).

Entrepreneurial education is often defined -in the context of the basis of learning- as the continuing education, school educational programs or technical training courses. Chu (1998) highlighted that 'EE' is important because information and competencies about entrepreneurship inspire a person's willingness to create an innovative business (Yasir Shahab, Ye Changang, Angel David Arbizu, Muhammad Jamal Haider, 2018, p. 6).

Entrepreneurial training and education can enable students to acquire the skills required to set up a new enterprise and manage a business. Early exposure to entrepreneurial training and education may be particularly effective in promoting interest in entrepreneurship (Rui Fragoso, Weimer Rocha-Junior, Antonio Xavier, 2019, p. 4).

The previous results enable us to say that the entrepreneurship lessons and educational courses strengthen the desire of students to establish their own projects in the future, since it illustrate the advantages of entrepreneurial activities and the necessary steps for it.

2.2.3. Self efficacy and entrepreneurial intention

Self-efficacy relates to the beliefs of conscious individuals of their abilities and skills to perform a specific task. Individuals tend to avoid tasks where they have lower self-efficacy, whereas on the contrary, they perform better the tasks they think they enjoy with a higher degree of self-efficacy (Panagiotis Piperopoulos, Dimo Dimov, 2014, p. 3).

Trevelyan (2009) argued that despite the uncertainty and the limited resources, people of high self-efficacy initiate and continue their activities and behaviors. However, people with high self-efficacy have different behaviors to deal with obstacles and limitations, compared to those with low self-efficacy. Previous literature describes the strong relationship between explicit beliefs in a person's self-efficacy and the intention to initiate or carry out a task (Yasir Shahab, Ye Changang, Angel David Arbizu, Muhammad Jamal Haider, 2018, p. 3)

2.2.4. Entrepreneurial attitude and entrepreneurial intention

Attitude is regarded as one of the determinants of intent, and Ajzen defines it as "the degree to which a person has a positive or inappropriate evaluation or assessment of the behavior in question." The situation has proven as an important factor in explaining intent towards entrepreneurship (Wei-Loon Koe, Juan Rizal Sa'ari, Izadin Dbdulmajid, Kamariah Ismail, 2012, p. 202).

Attitude is "a psychological tendency that is expressed through the evaluation of a particular entity with a certain degree of approbation or resentment." The global scale of attitude towards entrepreneurship and entrepreneurial behavior reflects individuals' beliefs about how desirable are their outcomes in general. In fact, the more positive the attitude towards entrepreneurship is, the more favorable the overall perceived desire to create the enterprise (Kouroush Esfandiar, Mohamad Sarifi-Tehrani, Stephen Prat, Levent Altinay, 2017, p. 3).

If academics have a positive attitude towards entrepreneurial activities, this means a greater willingness to devote time and effort for creating a new business (Francisco Javier Miranda, Antonio Chamorro-Mera, Sergio Rubio, 2017, p. 4).

2.2.5. Other variables which can influence entrepreneurial intention

There exist other determinants that could affect the entrepreneurial intention such as gender, family background, environmental characteristics ...

In general, women tend to show fewer entrepreneurial attitudes, perceived behavior control, and self-standards compared to men (Rui Fragoso, Weimer Rocha-Junior, Antonio Xavier, 2019, p. 6). In the other side, Scott and Twomey (1988) analyzed the aspirations of university students and the study findings identified the influence of parents and work experience as important factors (Duygu Turker, Senem Sonmez Selcuk, 2009, p. 145). In terms of environmental characteristics, which can be expressed in the country of origin, as the level of economic development, financial availability and government regulations are among the factors that may influence the entrepreneurial intention (Galina Shrokova, Oleksiy Osiyevskyy, Karina Bogatyreva, 2015, p. 4).

3. SECOND PART : EMPRIRICAL STUDY

3.1. Procedure and data source and questionnaire development:

In order to implement the survey conception, the questionnaire has been divided into six developmental sets of questions. The first part deals with the social and demographic characteristics of the participants (gender, age, professional status, specialty and the level). The remaining five sets of questions deal with the outcome variable and the explanatory variables. The outcome variable is represented by building entrepreneurial intention and explanatory variables that include structures of personality traits, training and entrepreneurial education, self-efficacy, and entrepreneurial attitude. Usually, items are scored using a Likert scale (1932). In its original version, the Likert scale consisted of five categories (five points), but different scale sizes were discussed. Some authors argue that increasing the number of classes could improve the reliability of the scale (Churchill and Peter 1984). However, Viswanathan, Sudman, and Johnson (2004) found that 7 points are the maximum number of classes that a human can distinguish and judge. Thus, all attitude questions were scored on a 7-point Likert scale. This scale offers 7 different answer options related to an agreement that would be distinct enough for respondents to answer without getting confused. These phrases are as follows: Strongly disagree, Disagree, Disagree somewhat, neither agree nor disagree, Agree somewhat, Agree, Strongly agree.

The data of this research was collected from September to October 2020 using online questionnaires, as they were distributed to a group of Medea University students studying at the undergraduate (Bachelor's and Master's levels) and postgraduate studies (PhD). Medea University was chosen because it is the university to which the researcher belongs. The questionnaire was distributed on the social media sites of Medea University students, and only 146 responses were received.

3.2. Sample characteristics

In order to know the distribution of the study sample and its characteristics, we used some socio-demographic variables and other variables related to their studies, as shown in the following table:

Table 01: characteristics of study's sample

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description		Number	percentage
gender	female	76	52.1
	male	70	47.9
Age	Less than 25	85	58.2
	Between 25 and 30	34	23.3
	More than 30	27	18.5
Professional status	Unemployed	99	67.8
Status	Employee	33	22.6
	I have my own business	14	9.6
Specialty	economic, commercial and management sciences	54	37.0
	humanities, social, political sciences, languages, and law	35	24.0
	exact sciences and life sciences (mathematics, computer sciences, medicine, pharmacy, geology)	57	39.0
The level	Bachelor	64	43.8
	Master	48	32.9
	postgraduate	34	23.3

Source: made by researchers using the outputs of SPSS 21

In order to know the validity and reliability of the study questionnaire, we relied on Cronbach's alpha coefficient, and found it equal to (0.945) and it is bigger than 7.0, which means that the study tool has consistency, which indicates a good internal consistency for all the questionnaire questions, and the results are shown in the table below:

Cronbach's alpha	Numbre of items		
0.945	34		
Comment and from CDCC 21			

Source: output from SPSS 21

3.3. Assessment of the measurement model

We need to verify the reliability and validity of the measurements before coming up with the study results. We mean by reliability the ability to measure the required, while the validity of the measurement model means the ability to measure the required under different situations. Construct validity consists of two important components: convergent validity and discriminate validity.

3.3.1. Convergent validity

Convergent validity: is the degree to which multiple items (questions) measuring the same concept (variable or construct) are in agreement. According to Hair et al (2014); the criteria to assess convergent validity are: factor loading must be above 0.4, composite reliability must be above 0.7 and Average variance Extracted (AVE) must be above 0.5

variables	items	Factor loading	AVE	Composite reliability
Personality traits	p_t1	0.766	0.904	0.575
	p_t2	0.775		
	p_t3	0.744		
	p_t4	0.733		
	p_t5	0.738		
	p_t6	0.756		
	p_t7	0.792		
	T_EE1	0.784	0.890	0.577

Table 03: Internal validity indicators measurement model

Training and	T EE2	0.700		
entrepreneurial	T EE3	0.870	-	
education	T EE4	0.852	-	
	T EE5	0.657	-	
	T_EE6	0.665	-	
Self efficacy	S_E1	0.684	0.955	0.702
-	S_E2	0.811	7	
	S_E3	0.874	7	
	S_E4	0.880	7	
	S_E5	0.868		
	S_E6	0.778		
	S_E7	0.851		
	S_E8	0.900		
	S_E9	0.870		
Entrepreneurial	E_A1	0.755	0.930	0.770
attitude	E_A2	0.924		
	E_A3	0.927		
	E_A4	0.892		
Entrepreneurial	E_I1	0.914	0.939	0.837
intention	E_I2	0.906	_	
	E_I3	0.924		
	Source: made	e by researchers using outp	outs of SmartPLS 3	

Source: made b	y researchers	using outputs	of SmartPLS 3
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According to the previous table, we note that the values of the composite reliability exceed the 7.0 threshold for all latent variables, indicating good reliability of the metric model used.

It is also clear from the table that all the latent variables are characterized by the convergent validity, as all the factor loading coefficients are bigger than 0.4. In addition, all average variance extracted (AVE) values are exceeding the cut-off 0.5, which also indicates the quality of the measurement model.

3.3.2. **Discriminate validity**

Discriminate validity: The degree to which items differentiate among constructs or measure distinct concepts by examining the correlations between the measures of potentially overlapping constructs. Which consists of two tests: cross validity and variable correlation

- Cross laoding: The loading of an indicator on its assigned latent variable should be higher than its loadings on all other latent variables.

		Table 04: o	cross loading		
	personality traits	training and entrepreneurial education	self efficacy	entrepreneurial attitude	entrepreneurial intention
p_t1	0.766	0.306	0.576	0.400	0.400
p_t2	0.775	0.296	0.602	0.499	0.385
p_t3	0.744	0.318	0.663	0.339	0.307
p_t4	0.733	0.166	0.562	0.343	0.344
p_t5	0.738	0.324	0.560	0.365	0.473
p_t6	0.756	0.396	0.513	0.598	0.613
p_t7	0.792	0.210	0.582	0.415	0.397
T_EE1	0.263	0.784	0.309	0.347	0.357
T_EE2	0.279	0.700	0.339	0.274	0.317
T_EE3	0.284	0.870	0.356	0.321	0.300
T_EE4	0.306	0.852	0.337	0.333	0.390
T_EE 5	0.300	0.657	0.342	0.347	0.272

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T_EE 6	0.368	0.665	0.408	0.346	0.307
S_E1	0.502	0.443	0.684	0.356	0.374
S_E2	0.668	0.350	0.811	0.422	0.399
S_E3	0.693	0.458	0.874	0.456	0.487
S_E4	0.639	0.352	0.880	0.425	0.488
S_E5	0.636	0.324	0.868	0.418	0.421
S_E6	0.576	0.421	0.778	0.445	0.416
S_E7	0.674	0.304	0.851	0.402	0.423
S_E8	0.642	0.430	0.900	0.353	0.474
S_E9	0.647	0.357	0.870	0.351	0.401
E_A1	0.464	0.235	0.380	0.755	0.452
E_A2	0.485	0.405	0.421	0.924	0.617
E_A 3	0.513	0.455	0.418	0.927	0.640
E_A 4	0.565	0.388	0.468	0.892	0.660
E_I1	0.525	0.424	0.475	0.667	0.914
E_I2	0.545	0.360	0.544	0.532	0.906
E_I3	0.518	0.397	0.411	0.666	0.924

Source: made by researchers using outputs of SmartPLS 3

From Table 4, we verify that all the items belong to the most appropriate latent variable, since its loading corresponding to its latent variable is higher than its loadings in the all other latent variables.

- Variable correlation: root square of AVE: A latent variable should explain better the variance of its own indicators than the variance of other latent variables. If a specific construct shows more correlated with another construct than with its own measures, this means, there is a possibility that the two constructs share the same types of measures and they are not conceptually distinct (Chin, 2010).

	personalit y traits	training and entrepreneuria l education	self efficac y	entrepreneurial attitude	entrepreneurial intention
personality traits	0.758	0.393	0.754	0.578	0.578
training and entrepreneurial education		0.759	0.456	0.431	0.432
self efficacy			0.838	0.482	0.518
entrepreneurial attitude				0.877	0.683
entrepreneurial intention					0.915

Table 05	Fornell-Larcker	Criterion
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Source: made by researchers using outputs of SmartPLS 3

Through the results shown in Table 5, we note that the root square of the AVE represented by the diagonal values of the matrix is greater than the correlation of the latent variables with each other (the values outside the diagonal); this indicates that there is a difference (distinction) between the latent variables (Hair et al. 2014).

Finally, after verifying the criteria for the stability of internal consistency, convergent and discriminate validity, it can be said that the measurement model is good and we can use it to measure the latent variables in the study.

3.4. Assessment of structural model

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Assessment of structural model consists of five different tests, which are: path coefficient (hypotheses test), coefficient of determination \mathbb{R}^2 , effect size f^2 , predictive relevance \mathbb{Q}^2 and goodness of fit (GOF).

3.4.1. Path coefficient: test-hypotheses

In order to test the hypotheses of the proposed study, the significance of the coefficients paths between the external and internal latent variables has been examined, depending on the T-value, which must exceed 1.96 so that the path will be significant or the p-value must be under 0.05 (Hair et al, 2014). The results are shown. In the following table:

Hypotheses	relationship	Std	Std Error	T Value	P Value	decisions
	_	beta				
H1	personality traits -> entrepreneurial intention	0.485	0.127	1.414	0.158	rejected
H2	training and entrepreneurial education -> entrepreneurial intention	0.179	0.071	1.486	0.138	rejected
Н3	self efficacy -> entrepreneurial intention	0.101	0.114	0.880	0.379	rejected
H4	entrepreneurial attitude -> entrepreneurial intention	0.106	0.079	6.121	0.000	supported
Source: made by researchers using outputs of SmartPLS 3						

Table 06: total effects

According to the results shown in Table 06, it becomes clear that there is no positive and significant (not statistically significant) effect of personality traits, training and entrepreneurial education, and self-efficacy on entrepreneurial intention so that the corresponding P-value for them is greater than 0.05. therefore we reject the first, second and third hypothesis while we accept the fourth hypothesis because of its statistical significance. T-value was greater than 1.96 and P-value less than 0.05. Thus, we can say that there is a statistically significant effect of the entrepreneurial attitude on the entrepreneurial intention.

Coefficient of determination R²

The results showed that the value of the coefficient of the determination R is equal to 0.553, which indicates that the variables used in the model explain 55.3% of the entrepreneurial intention variance, that is to mean, they explain 55.3% of the entrepreneurial intention information. According to (Hair et al 2014); the minimum value of R^2 is 0.25, and this indicates that our study model has a good explanatory ability to explain the endogenous latent variable.

3.4.2. The effect size F^2

The Effect size indicates the relative effect of a particular exogenous latent variable on endogenous latent variable(s) by means of changes in the R^2 . It is calculated as the increase in R^2 of the latent variable to which the path is connected, relative to the latent variable's proportion of unexplained variance.

According to (Cohen 1988) we comment on the values of F² as follows:

- ✓ A latent variable with $F^2 > 0.35$ is considered a large effect size.
- ✓ A latent variable with F^2 ranges from 0.15 to 0.35 medium impact size.
- ✓ A latent variable with F^2 ranges from 0.02 to 0.15 are a small effect size.
- ✓ A latent variable with $F^2 < 0.02$ is considered with no effect size.

	entrepreneurial intention
personality traits	0.026
training and entrepreneurial education	0.018
self efficacy	0.009
entrepreneurial attitude	0.311

Table 07: f square (f²)

Source: made by researchers using outputs of SmartPLS 3

From Table 7 it appears that the entrepreneurial attitude has a medium effect size on the entrepreneurial intention, while personality traits has a small effect size on the entrepreneurial intention. And finally, with regards to self-efficacy, training and entrepreneurial education; they are considered with no effect size on entrepreneurial intention

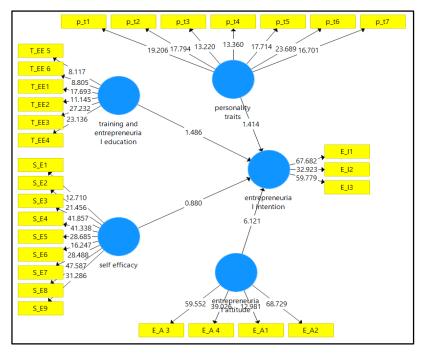


Figure 01: research framework

Source: outputs of SmartPLS 3

3.4.3. Predictive relevance Q²

According to Fornell and Cha (1994) $Q^2 > 0$ shows that there is predictive relevance while a $Q^2 < 0$ indicates the model lacks predictive relevance.

The results of the study model gives us $Q^2 = 0.4278$ which is greater than zero, and this supports the claim that this study model has an adequate ability to predict.

3.4.4. Goodness of fit of the model (GOF)

Tenenhaus, Vinzi, Chatelin, and Lauro (2005) defined GoF as the global fit measure, it is the geometric mean of both average variance extracted (AVE) and the average of R^2 of the endogenous variables. The purpose of GoF is to account on the study model at both levels, namely measurement and structural model with focus on the overall performance of the model (Chin, 2010; Henseler & Sarstedt, 2013). The calculation formula of GoF is as follow:

$$GOF = \sqrt{\overline{R^2} \times \overline{AVE}}$$

Through the results obtained before, we have the Goodness of Fit for our study model equal to: $GOF = \sqrt{0.533} \times ((0.770 + 0.837 + 0.575 + 0.702 + 0.577) \div 5) = 0.607$ This indicates the quality of the proposed structural model

4. Conclusion

The topic of entrepreneurship has attracted the interest of many researchers because of its great importance in economic growth and the achievement of wealth. So, we tried through this study to identify the most important determinants that enhance the intentions of university students in establishing a new venture, and to reach this goal, the

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relationship between the determinants and the entrepreneurial intention was clarified theoretically based on previous studies. After that, a survey with a questionnaire was conducted among 146 students from Medea University using the SmartPLS3 program, and the study revealed the following results:

- ✓ The lack of a statistically significant effect of personality traits on entrepreneurial intention, which is inconsistent with many previous studies, but the reason may be the limited sample size. In theory, the importance of personality traits in the decision making to create a private company cannot be ignored, especially with regard to the characteristic of the risk-taking, creativity and innovation.
- ✓ The lack of a statistically significant effect of training and entrepreneurial education on the entrepreneurial intention of university students, which indicates the absence of the university's role in motivating students to move towards entrepreneurship and its failure to spread the culture of entrepreneurship and awareness of the importance of entrepreneurship. The reason for this may be also attributed to the inefficiency and the ineffectiveness of the programs provided by national and government agencies, and the reason is also due to the students and researchers themselves, despite their awareness of the importance of business training, most of them did not enroll in any specialized training course in this field.
- ✓ There is no statistically significant effect of self-efficacy on entrepreneurial intention. The reason may be the poorness of the sample selection that represents the study population. The importance of self-efficacy in making the decision to create a private enterprise cannot be neglected.
- ✓ The existence of a positive statistically significant effect of the entrepreneurial attitude on the entrepreneurial intention. This finding is consistent with the theory of planned behavior, which means that having a positive attitude toward entrepreneurship has a significant impact on students's intention to become entrepreneurs in the future.

Our study had several limitations, including:

- ✓ Small sample size
- ✓ Not being selecting a sample that represents the study population well, as the questionnaire was distributed electronically
- ✓ The possibility that the respondents did not understand the terminology, especially for scientific fields

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Appendix

Appendix 01: the questionnaire used in the study

constructs	items
Personality traits	1. I am an extrovert person that likes to talk, keep contacts and be with other people
	2. I am affable, pleasant and easy-going and I am interested in other people
	3. I am independent, I have my own ideas and I do not copy ideas from others
	4. My success depends more on my skills than on the institutional environment
	5. I am not afraid to take the financial risks in an entrepreneurial activity
	6. I am continually looking for new opportunities
	7. I often look for activities that make me happy
Training and entrepreneurial	1. In addition to university studies, I did specialized courses in entrepreneurship
education:	2. In addition to university studies, I did specialized studies in leadership
	3. My training and entrepreneurial education have been useful in improving the knowledge in entrepreneurship
	4. My training and entrepreneurial education have been useful in improving my entrepreneurial intention
	5. I personally know entrepreneurs in my family
	6. I personally know entrepreneurs among my friends
Self-efficacy:	1. For me, it is easy to create and manage a new venture
	2. If I create a new venture I will probably be successful
	3. I have the capacity to recognize opportunities
	4. I am creative
	5. I have good skills for solving problems
	6. I have good skills in leadership
	7. I have good skills in communication
	8. I have good skills for developing new products and services
	9. I have good skills for establishing professional relationships
Entrepreneurial attitude:	1. I want to get some experience before creating my own business
	2. Being an entrepreneur is attractive to me
	3. If I have an opportunity and resources, I would like to be an entrepreneur
	4. Being an entrepreneur brings me great satisfaction
Entrepreneurial intention:	1. My personal goal is to be entrepreneur
	2. I am determined to create a new venture in the future
	3. I am willing to do whatever it takes to be an entrepreneur