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The role of entrepreneurial education in enhancing passion and entrepreneurial intention for students of the faculty of economic and commercial sciences and management sciences

Mohammed Cherif El Amin

DEAMAPRT Laboratory, Illizi University Center - Illizi (Algeria)

Email: m.c.elamine@cuillizi.dz

Setti Sidahmed

DEAMAPRT Laboratory, Illizi University Center - Illizi (Algeria) Email setti.sidahmed@cuillizi.dz

Boumadjen Rima

DEAMAPRT Laboratory, Illizi University Center - Illizi (Algeria) Email Boumadjen.rima@cuillizi.dz

Abstract—This study aims to identify the role of entrepreneurial education in enhancing the passion and entrepreneurial intention for students of the Faculty of Economic and Commercial Sciences and Management Sciences in border desert areas. It also explores the relationship between these variables, which have gained significant importance in the field of entrepreneurship. The study was conducted on a sample of 428 university students through the distribution of a questionnaire, and the data was processed using SPSSv26. This study found that entrepreneurial education, in its three dimensions (Methodological programs, extracurricular programs, and social education), has a major impact on enhancing and supporting the passion and entrepreneurial intention for students.

Keywords---Entrepreneurial Education; Entrepreneurial Passion; Entrepreneurial Intention.

1. Introduction

Entrepreneurship has gained significant attention among researchers recently, becoming a central issue in both developed and emerging countries as attempts to enhance economic welfare. This has led to an increasing number of previous studies addressing both entrepreneurial education and entrepreneurial passion and intention. Entrepreneurial education can enhance awareness and intention, as it is defined as "the process of providing students with the knowledge and skills necessary to contribute to economic and social development by moving towards creating their own projects."

Entrepreneurial passion involves positive intense feelings that can be accessed consciously and felt through participation in entrepreneurial activities. This forms the desire and readiness to start private projects, known as entrepreneurial intention. Entrepreneurial education plays a vital role in enhancing students' capabilities by transferring knowledge and skills, making it an important element of entrepreneurship. It increases the desire to practice entrepreneurial behavior. From this perspective, the main problem can be formulated as follows:

"To what extent does entrepreneurial education contribute to enhancing the entrepreneurial passion and intention of students of the Faculty of Economic and Commercial Sciences and Management Sciences in border desert areas?"

To answer this question, the following hypotheses were formulated:

- 1. Entrepreneurial education contributes to enhancing the entrepreneurial passion of students of the Faculty of Economic and Commercial Sciences and Management Sciences in border desert areas.
- **2.** Entrepreneurial education contributes to enhancing the entrepreneurial intention of students of the Faculty of Economic and Commercial Sciences and Management Sciences in border desert areas.
- **1.1. Importance of the Study:** The importance of this study lies in:
 - Identifying the importance of entrepreneurial education, entrepreneurial passion, and entrepreneurial intention in the field of entrepreneurship.
 - The novelty of entrepreneurial education in Algerian universities.
 - Enhancing the concept of entrepreneurship in Algerian universities to be compatible with labor market needs.
 - Developing new educational curricula that are more effective, thereby enhancing the quality of education.
- **1.2. Objectives of the Study:** The study aims to achieve several objectives, including:
 - Clarifying the role of entrepreneurial education in enhancing both passion and entrepreneurial intention for university students.
 - Enhancing research in the field of entrepreneurship and understanding the role of entrepreneurial passion and its impact on directing students towards entrepreneurship.
 - Clarifying the nature of the relationship between entrepreneurial education, entrepreneurial passion, and entrepreneurial intention.

1.3. Previous Studies:

A. Study (Saeid, 2019) Title:

"The role of entrepreneurial passion in the formation of students' entrepreneurial intentions"

This study aimed to identify the role of entrepreneurial passion in forming entrepreneurial intentions among students. Data was collected by distributing questionnaires to a sample of 250 university students in Iran and analyzed using structural equation modelling. The study found a statistically significant indirect relationship between entrepreneurial passion and entrepreneurial intention.

B. Study (Ludi, Bagus Shandy, Agus, & et al, 2020) Title:

"The impact of entrepreneurship education and students' entrepreneurial mindset: the mediating role of attitude and self-efficacy"

This study aimed to explore the relationship between entrepreneurship education and students' entrepreneurial mindset, including the mediating role of attitude and self-efficacy. It used a random sampling method and was conducted on a sample from several universities in Malang, Indonesia, through an online survey. The study found that entrepreneurship education successfully affects entrepreneurial self-efficacy, entrepreneurial attitude, and entrepreneurial mindset.

C. Study (Imran, Jonathan, Ronda M, & Xian, 2020) Title:

"From entrepreneurial passion to entrepreneurial intentions: The role of entrepreneurial passion, innovativeness, and curiosity in driving entrepreneurial intentions"

This study aimed to understand the mediating role of innovation and the moderating role of curiosity in the relationship between entrepreneurial passion and entrepreneurial intention. The sample consisted of 295 participants, and data was analyzed using SPSSv24. The results showed that innovation partially mediates between entrepreneurial passion and entrepreneurial intention, with stronger mediation effects for those with high curiosity scores.

D. Study (Brownhilder, 2020) **Title:**

"Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy"

This study aimed to explore the relationship between entrepreneurial passion and entrepreneurial intention, examining whether entrepreneurial self-efficacy mediates this relationship and the role of social support in mediation. It used a questionnaire with a sample of 500 university students in South Africa. The study found that entrepreneurial passion positively affects entrepreneurial intention and entrepreneurial self-efficacy, with social support having a positive and significant impact on entrepreneurial intention.

E. Study (Macário, Jessyca Lages, José Milton, & Bruno, 2023) Title:

"The role of self-efficacy entrepreneurial passion and creativity in developing entrepreneurial intentions"

This study aimed to evaluate the relationship between passion, self-efficacy, creativity, and entrepreneurial intention. Data was collected through a survey distributed to a sample of 190 respondents and analyzed using structural equation modelling. The results showed that the level of education affects

entrepreneurial intention, and creativity only affects entrepreneurial intention when mediated by entrepreneurial passion.

- **1.4. Study Form:** In order to answer the main problem, through previous studies, the following two models have been proposed:
- **A. The first model**: the impact of entrepreneurial education on promoting entrepreneurial passion

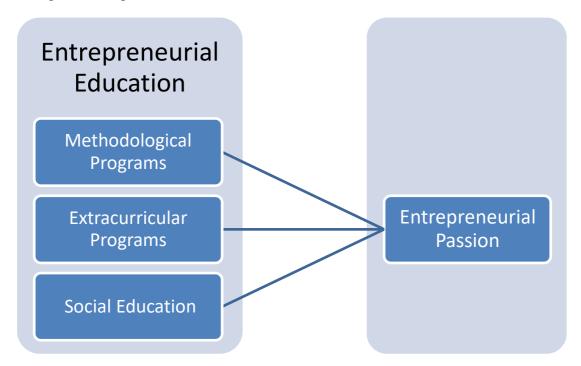


Figure (01): Model One: The Impact of Entrepreneurial Education on Promoting Entrepreneurial Passion

Source: Prepared by researchers based on previous studies.

Through this model we put forward the following main hypothesis:

H_1 : There is a positive and statistically significant effect of entrepreneurial education on fostering entrepreneurial passion

Through this model, and based on previous studies, we propose the following sub-hypotheses:

- $\mathbf{H_{1-1}}$: There is a positive and statistically significant effect of Methodological programs on fostering entrepreneurial passion.
- $\mathbf{H_{1-2}}$: There is a positive and statistically significant effect of extracurricular programs on fostering entrepreneurial passion.
- $\mathbf{H_{1-3}}$: There is a positive and statistically significant effect of social education on fostering entrepreneurial passion.

B. The second model: the impact of entrepreneurial education on enhancing entrepreneurial intention

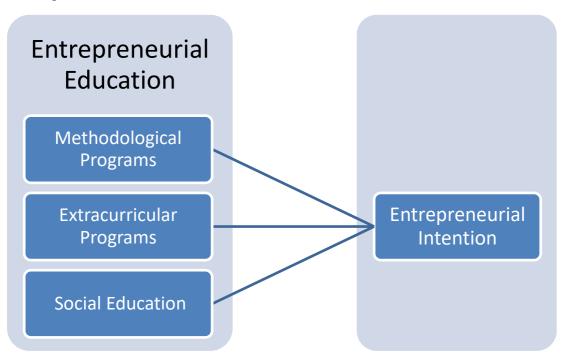


Figure (02): The second model: The impact of entrepreneurial education on enhancing entrepreneurial intention

Source: Prepared by researchers based on previous studies

Through this model we put forward the following main hypothesis:

H_2 : There is a positive and statistically significant effect of entrepreneurial education on enhancing entrepreneurial intention

Through this model, and based on previous studies, we propose the following sub-hypotheses:

 $\mathbf{H_{2.1}}$: There is a positive and statistically significant impact of Methodological programs on strengthening entrepreneurial intent.

H_{2.2}: There is a positive and statistically significant effect of extracurricular programs on enhancing entrepreneurial intent.

H_{2.3}: There is a positive and statistically significant effect of social education on the promotion of entrepreneurial intent.

2. Theoretical Framework:

2.1. Concept of Entrepreneurial Education

Entrepreneurial education is crucial in today's economic and technological developments, as it enhances individuals' cognitive and skill abilities to solve problems innovatively.

2.1.1 Definition of Entrepreneurial Education:

Researchers have provided various definitions of entrepreneurial education, including:

- "An educational activity that discusses knowledge, skills, attitudes, and personality related to entrepreneurship." (Ludi, Bagus Shandy, Agus, & et al, 2020, p. 02)
- "It is defined as the individual ability to find a business idea and transform it into practice (European Commission 2011). According to Shane and Venkataraman (2000) entrepreneurship is defined as the study of opportunity sources that consist of processes in which opportunities are discovered, evaluated, and used. In order to master these processes, proper education is needed, which has thus given rise to entrepreneurship education (Deveci and Seikkula-Leino 2018).. " (Heliona & Cungu, 2023, p. 02)
- "An educational process that encourages entrepreneurial activities, behaviors, and mindsets." (Asli & El manzani, 2015, p. 09)

From these definitions, entrepreneurial education can be defined as a process that provides students with the necessary knowledge and skills to explore and exploit business opportunities, thereby motivating them to create successful private projects.

2.1.2 Objectives and Dimensions of Entrepreneurial Education

Entrepreneurial education aims to equip students with the skills and knowledge necessary to start successful ventures and foster entrepreneurial success. Here are some key objectives of entrepreneurial education:

- Development of Entrepreneurial Capabilities: Aims to enhance entrepreneurial skills and knowledge such as identifying opportunities, developing ideas, and taking risks (Mwasalwiba, 2010)
- Promotion of Economic and Social Development: Contributes to economic and social development by creating new job opportunities and stimulating innovation (Karen , Vyakarnam, Volkmann, Mariotti, & Rabuzzi, April 29, 2009)
- Enhancement of Entrepreneurial Intention: Research confirms that entrepreneurial education increases entrepreneurial intention by enhancing positive attitudes toward starting new ventures (Souitaris, Zerbinati, & Al-Laham, 2007).
- Development of Real-Life Skills: Provides life skills such as problem-solving, teamwork, and effective communication (Marlborough, 2019)
- Promotion of Creative and Innovative Thinking: Helps students develop creative and innovative thinking skills to turn ideas into successful projects (European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, ICF Consulting Services Ltd & Curth, A, 2015)

The dimensions of entrepreneurial education include Methodological programs, extracurricular programs, and social education. These can be defined as follows:

I. **Methodological Programs:** "The courses and content of entrepreneurship programs offered in universities." Entrepreneurship education in the form of Methodological programs is related to entrepreneurial intentions because it helps students learn and identify new business opportunities. These

- curricula should improve students' ability to envision and assess feasibility by increasing their knowledge and confidence.
- II. **Extracurricular Programs:** Defined as "activities that go beyond traditional activities, are innovative, carry an element of risk, and lead to financial rewards." Additionally, these activities provide informational support and tools for developing entrepreneurial intentions.
- III. **Social Education:** Defined as "the ability of humans to learn not only from their own experiences but also from surrounding experiences." It involves processes that help understand human motivations, emotions, and actions in society. (Doan & Sung Eui Cho, 2018, pp. 2-3)

2.2 Concept of Entrepreneurial Passion:

Researchers have provided several definitions related to entrepreneurial passion, including:

- "The fire of desire that makes entrepreneurs deal with the constraints they face to overcome failures and challenges to achieve success." (Saeid, 2019, p. 01)
- "An individual's passion for inventing, founding, or developing a new business." (Alexander, Martin, Julia, & Gemma, 2021, p. 817)
- "Intense positive feelings that can be accessed consciously and felt through participation in entrepreneurial activities related to meaningful roles for the entrepreneur's identity." (Alexander , Martin , Julia , & Gemma , 2021, p. 817)

From these definitions, entrepreneurial passion can be defined as "a strong psychological emotion displayed by entrepreneurs in the process of starting a business, with a positive inclination towards entrepreneurial behavior and dedicating much energy and time to it."

2.3 Concept of Entrepreneurial Intention:

Entrepreneurial intention is one of the most accurate indicators that can measure an individual's behavior. To understand it better, several definitions are mentioned:

- "An individual's readiness, desire, and ability to engage in entrepreneurial behaviors or create a business related to others and society as a whole."
- "The degree of readiness and ability of an individual or group to create a future business project."
- "A student's desire and readiness to start an entrepreneurial venture." (Delle & Amadu, 2015, p. 10)

From these definitions, entrepreneurial intention can be defined as an individual's recognition of their readiness and desire to undertake a new project in the future.

3. Practical Aspect:

This part involves identifying the method and tools used in the field aspect of this study, including all steps, up to presenting the results and analyzing them using appropriate statistical processors, and then interpreting those results to test the validity of the study's hypotheses.

3.1 Method Used in the Study

This part covers the method adopted in the study, including defining the study population and the selected sample, as well as defining the study variables and data sources.

3.1.1 Population and Sample of the Study:

- I. **Population:** The selected population for applying this study consists of students of the Faculty of Economic and Commercial Sciences and Management Sciences in the border desert regions (Ouargla, El Oued, Illizi).
- II. **Sample:** The current study was limited to a sample of 428 students in the border desert regions (Ouargla, El Oued, Illizi), selected randomly by distributing an electronic questionnaire on some social media pages specific to students from the mentioned regions.

3.1.2 Variables of the Study:

The study included the following variables:

- Dependent Variables:
 - Model 1: Entrepreneurial Passion
 - **Model** 2: Entrepreneurial Intention
- Independent Variable: Entrepreneurial Education

3.1.3 Data Collection Tool:

A questionnaire was prepared based on a five-point Likert scale as a defined standard for measuring the degree of agreement or disagreement of the sample individuals with the options specified in the questionnaire. Each scale degree was assigned a code (1 indicating full agreement, up to 5 indicating full disagreement). Regarding the source of preparing the questionnaire items, Table 1 below shows the questionnaire items (questions) categorized according to their dependency on each variable.

Table 1: Questions of the questionnaire axes

Variables	Numbers of questions	Source
Entrepreneurial Education	13	(Doan & Sung Eui Cho, 2018)
Entrepreneurial passion	05	(Gia Ninh & Trieu Khoa, 2024)
Entrepreneurial Intention	05	(Anabela , 2024)

Source: Prepared by the researchers based on previous studies.

Presentation of Study Results and Testing the Model:

A. Descriptive Analysis of the Personal Data of Sample Individuals:

The study sample was analyzed to identify demographic variables and how sample individuals were distributed according to each variable as follows:

Table 2: Distribution of sample individuals according to demographic variables

Variable	Statement	Frequency	Percentage
Condon	Male	209	48.8%"
Gender	Female	219	51.2%
	Under 21 years	202	47.2%
A ma Charra	21-23 years	156	36.4%
Age Group	23-28 years	55	12.9%
	Over 28 years	15	3.5%
	Ouargla	191	44.6%
University	El Oued	153	35.7%
	Illizi	84	19.6%
	Bachelor's student	219	51.2%
Formation stage	Master's student	159	37.1%
	Doctoral student	50	11.7%
	"Economic Sciences	184	43.0%
Specialization	Commercial Sciences	131	30.6%
	Management Sciences	113	26.4%
Total		428	100%

Source: Prepared by the researchers based on the outputs of SPSS V26

From the table above, it is clear that out of 428 students, it is clear that 48% of the students were male and 51% were female. The most contributing age group was under 21 years old at 47%, followed by the group aged between 21 and 23 years old at 36%, then 12% for those between 23 and 28 years old, and finally, those over 28 years old at 3%. The university with the highest representation is the University of Ouargla at 44%, followed by the University of El Oued at 35%, and finally, the University of Illizi at 19%. Additionally, the dominant educational level in this sample is Bachelor's students at 51%, followed by Master's students at 37%, and then Ph.D. students at 11%. Regarding the distribution by specialization, 43% are in Economic Sciences, 30% in Commercial Sciences, and 26% in Management Sciences.

B. Descriptive Analysis of the Questionnaire Axes

This section will present the results of the descriptive analysis of the responses from the sample regarding the questions of the study questionnaire. This includes analyzing the arithmetic mean and standard deviation values, as well as the corresponding evaluation for each.

- First: Analysis of Questions (Items) of the Entrepreneurial Education Axis: The descriptive analysis of the responses is presented in the following tables:

Table 3: Direction of Responses from Sample Individuals Regarding the Dimension of methodological programs

Statement	Arithmetic Mean	Standard Deviation	-
Methodological entrepreneurial education programs are well-organized in my	4.32	0.7260	Strongly Agree

Statement	Arithmetic Mean	Standard Deviation	Response Direction
university.			
A variety of Methodological entrepreneurial courses are available.	4.44	0.6690	Strongly Agree
Methodological programs are well-developed.	4.48	0.7420	Strongly Agree
Entrepreneurial education is important in my university.	4.20	0.6900	Strongly Agree
Methodological programs are useful for understanding entrepreneurship and startups.	4.29	0.6040	Strongly Agree
methodological programs	4.33	0.411	Strongly Agree

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It is clear from the table above that the average responses of students for the first dimension, Methodological Programs, were all towards strong agreement according to the Likert scale. This explains that students of the Faculty of Economic, Commercial, and Management Sciences in the three universities agreed that the Methodological entrepreneurial education programs in their universities are beneficial, developed, diverse, and well-organized, helping them understand entrepreneurship and how to establish startups.

Table 4: Direction of Responses from Sample Individuals Regarding the Dimension of extracurricular programs

Statement	Arithmetic Mean	Standard Deviation	Response Direction
Extracurricular programs are well-organized in my university.	4.41	0.6550	Strongly Agree
The university provides diverse extracurricular programs (such as guidance, student activities, etc.).	4.41	0.6730	Strongly Agree
Extracurricular programs in my university are well-developed.	4.27	0.7450	Strongly Agree
Extracurricular programs are important.	4.36	0.5830	Strongly Agree
Extracurricular programs	4.33	0.443	Strongly Agree

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It appears from the table above that the average responses of students for the second dimension, Extracurricular Programs, were all towards strong agreement according to the Likert scale. This explains that students of the Faculty of Economic, Commercial, and Management Sciences in the three universities agreed that the extracurricular programs offered by their universities are

important, well-developed, diverse, and lead to a desire to enter the field of entrepreneurship.

Table 5: Direction of Responses from Sample Individuals Regarding the Dimension of Social Education

Statement	Arithmetic Mean	Standard Deviation	Response Direction
Our community has an environment that promotes entrepreneurship.	4.37	0.6520	Strongly Agree
Entrepreneurship and startups are respected in our community.	4.38	0.6890	Strongly Agree
It is easy to obtain information and knowledge about startups in our community.	4.44	0.7240	Strongly Agree
Our community has good infrastructure to support entrepreneurship and startups.	4.42	0.7250	Strongly Agree
Social Education	4.39	0.4310	Strongly Agree

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It is clear from the table above that the average responses of students for the third dimension, Social Education, were all towards strong agreement according to the Likert scale. This explains that students of the Faculty of Economic, Commercial, and Management Sciences in the three universities agreed that their community has a supportive infrastructure for entrepreneurship, an environment that promotes and encourages them to engage in entrepreneurship, allowing them to access various information and knowledge about startups.

- Second: Analysis of the Direction of Responses Regarding Entrepreneurial Passion: The results of the arithmetic mean and standard deviation for the axis of entrepreneurial passion after analyzing the responses of the sample were as follows:

Table 6: Direction of Responses from Sample Individuals Regarding the Axis of Entrepreneurial Passion

Statement	Arithmetic	Standard	Response
	Mean	Deviation	Direction
I am eager to start a new business.	4.43	0.6580	Strongly Agree

It would be enjoyable to nurture a new company until it achieves success.	4.37	0.6830	Strongly Agree
I am enthusiastic about learning how to improve existing products/services.	4.49	0.7390	Strongly Agree
Exploring new opportunities in the environment is exciting.	4.43	0.6960	Strongly Agree
Being a company founder could become a fundamental part of my identity.	4.17	0.8200	Agree
Entrepreneurial Passion	4.37	0.4820	Strongly Agree

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It appears from the table above that the average responses of students for the variable of entrepreneurial passion tend towards agreement according to the Likert scale. This shows that students of the Faculty of Economic, Commercial, and Management Sciences in the three universities have strong positive feelings that make them eager to discover new opportunities and establish successful private companies to improve existing products and services.

- **Third: Analysis of the Direction of Responses Regarding Entrepreneurial Intention:** The results of the arithmetic mean and standard deviation for the axis of entrepreneurial intention after analyzing the responses of the sample were as follows:

Table 7: Direction of Responses from Sample Individuals Regarding the Axis of Entrepreneurial Intention

Statement	Arithmetic Mean	Standard Deviation	Response Direction
I am willing to do anything to become an entrepreneur.	4.33	0.7320	Strongly Agree
My professional goal is to become an entrepreneur.	4.36	0.6790	Strongly Agree
I will exert all my effort to work independently.	4.41	0.7490	Strongly Agree
I am determined to create my own business in the future.	4.28	0.7410	Strongly Agree

I seriously consider creating/managing a private company.	4.33	0.5600	Strongly Agree
Entrepreneurial Intention	4.35	0.46890	Strongly Agree

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It is clear from the table above that the average responses of students for the variable of entrepreneurial intention were all towards strong agreement according to the Likert scale. This shows that students of the Faculty of Economic, Commercial, and Management Sciences in the three universities have a strong desire to create their own businesses to become entrepreneurs owning private companies.

C. Testing the Study Model

To test the study hypothesis, a multiple linear regression model was used to verify the effect of the independent variable (entrepreneurial education) with its three dimensions on the dependent variable represented by entrepreneurial passion for the first model, and to verify the effect of the independent variable (entrepreneurial education) with its three dimensions on the dependent variable represented by entrepreneurial intention for the second model.

First Model: Role of Entrepreneurial Education in Enhancing Entrepreneurial Passion

- Reliability and Validity of the Questionnaire:

The results obtained and shown in Table 2 indicate that the Cronbach's alpha (\propto) value for the questionnaire of the first model (entrepreneurial education and entrepreneurial passion) is 0.856, which is acceptable as it exceeds the threshold, indicating the reliability of the questionnaire used in this study. The validity coefficient of the questionnaire for the first model reached 0.925, which indicates the internal consistency of all the questions of the study questionnaire.

Table 8: Results of Testing the Validity and Reliability of the Questionnaire

	Number	Cronbach's	Validity
	of Items	Alpha Value	Coefficient
Entrepreneurial Education and Entrepreneurial Passion Questionnaire	18	0.856	0.925

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

- Correlation Study Between Dimensions of Entrepreneurial Education and Entrepreneurial Passion

Table 9: Correlation Coefficients Between Dimensions of Entrepreneurial Education and Entrepreneurial Passion

Correlation Coeff	icient	Methodological Programs	Extracurricular Programs	Social Education
Entrepreneurial	Pearson Correlation Coefficient	0,720**	0,657**	0.669**
Passion	Statistical Significance Level Sig	0,000	0,000	0.0000

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It appears from the table above that there is a positive and somewhat strong correlation between the first dimension, Methodological Programs, and the dependent variable Entrepreneurial Passion, with a correlation coefficient of 0.720. The correlation between the second dimension, Extracurricular Programs, and the dependent variable is also positive and somewhat strong, with a correlation coefficient of 0.657. For the third dimension, Social Education, the correlation with the dependent variable is positive and very strong, with a correlation coefficient of 0.669.

- Coefficient of Determination, Adjusted Coefficient of Determination, and Correlation Coefficient

Table 10: Correlation Coefficient, Coefficient of Determination, and Adjusted
Coefficient of Determination

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination	
0.812	0.659	0.656	

Source: Prepared by the researchers based on the outputs of the SPSS V26 program.

It is clear from the table above that there is a strong positive correlation between the independent variable represented by entrepreneurial education and the dependent variable represented by entrepreneurial passion, with a correlation coefficient of 0.812. The independent variable explained 65.9% of the dependent variable, and the adjusted coefficient of determination was 65.6%, indicating the quality of the proposed study model.

- Variance analysis table (ANOVA)

Table 11: Variance analysis table (ANOVA)

Model	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	Calculated F-Statistic	Probability Value Sig	Significance Level	Significance
Regression	61,876	3	20.625				Ctatiaticaller
Residuals	32,038	424	0,076	272,967	0.001	0.005	Statistically Significant
Total	93,914	427					Significant

Source: Prepared by the researchers based on the outputs of SPSS V26.

From the table above and based on the results of the Fisher test, the probability value of the model is 0.001, which is less than the significance level (5%). Therefore, we accept the hypothesis that the regression model is statistically significant and that at least one of the regression coefficients differs from zero. Thus, the model of the role of entrepreneurial education in enhancing entrepreneurial passion is statistically significant.

- Estimation and Testing of Model Coefficients:

Table 12: Estimation and Testing of Coefficients of Model 1 (Entrepreneurial Education and Entrepreneurial Passion)

Model	Coefficient	Probability Value Sig	Significance Level	Significance
Constant	-0.274	0.121	0.05	Not Statistically Significant
Methodological				Statistically
Programs	0.436	0.001	0.05	Significant
Extracurricular	0.271	0.001	0.05	Statistically
Programs	0.271	0.001	0.03	Significant
Social Education	0.349	0.001	0.05	Statistically
				Significant

Source: Prepared by the researchers based on the outputs of SPSS V26.

From the table above:

- The constant term was -0.274, which is not statistically significant since the Sig value is 0.121, greater than the statistical significance level of 5%.
- There is a positive effect of the Methodological programs dimension on enhancing entrepreneurial passion, where the coefficient value is 0.436, which is statistically significant based on a Sig value of 0.001, less than the statistical significance level of 5%. This leads us to accept Hypothesis H₁₋₁, which states that there is a positive and statistically significant effect of the Methodological programs dimension on entrepreneurial passion.
- There is a positive effect of the extracurricular programs dimension on enhancing entrepreneurial passion, where the coefficient value is 0.271, which is statistically significant based on a Sig value of 0.001, less than the

- statistical significance level of 5%. This leads us to accept Hypothesis H_{1-2} , which states that there is a positive and statistically significant effect of the extracurricular programs dimension on entrepreneurial passion.
- There is a positive effect of the social education dimension on enhancing entrepreneurial passion, where the coefficient value is 0.349, which is statistically significant based on a Sig value of 0.001, less than the statistical significance level of 5%. This leads us to accept Hypothesis H₁₋₃, which states that there is a positive and statistically significant effect of the social education dimension on entrepreneurial passion.

This leads us to accept Hypothesis H1, which states that there is a positive and statistically significant effect of entrepreneurial education on entrepreneurial passion.

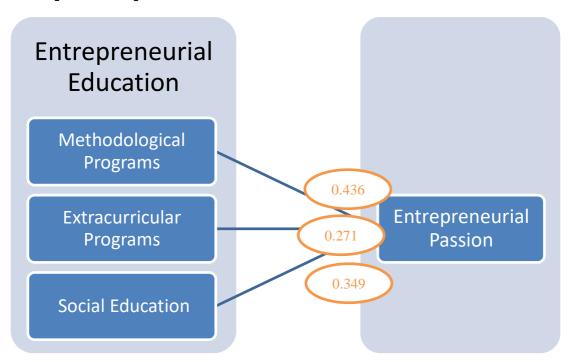


Figure 03: The final first model of the study **Source**: Prepared by the researchers based on the outputs of SPSS V26.

Model 2: Role of Entrepreneurial Education in Enhancing Entrepreneurial Intention

- Reliability and Validity of the Questionnaire:

For Model 2 (Entrepreneurial Education and Entrepreneurial Intention), the Cronbach's alpha coefficient for the questionnaire was 0.852, which is acceptable as it exceeds the threshold, indicating the reliability of the questionnaire used in

this study. The validity coefficient of the questionnaire for Model 2 was 0.923, indicating internal consistency among all questionnaire items.

Table 13: Results of Validity and Reliability of the Questionnaire

	Number	Cronbach's	Validity
	of Items	Alpha Value	Coefficient
Entrepreneurial Education and Entrepreneurial Passion Questionnaire	18	0.852	0.923

Source: Prepared by the researchers based on the outputs of SPSS V26.

- Correlation Study Between Dimensions of Entrepreneurial Education and Entrepreneurial Intention:

Table 9: Coefficients of Correlation Between Dimensions of Entrepreneurial Education and Entrepreneurial Intention

Correlation Coefficient		Methodological Programs	Extracurricular Programs	Social Education
		Tiograms	Tiugrams	Education
Entrepreneurial	Pearson Correlation Coefficient	0,620**	0,598**	0.677**
Intention	Statistical Significance Level Sig	0,000	0,000	0.0000

Source: Prepared by the researchers based on the outputs of SPSS V26.

From the table above, it is clear that there is a positive and somewhat strong correlation between the first dimension, Methodological programs, and the dependent variable entrepreneurial intention, with a linear correlation coefficient of 0.620. The second dimension, extracurricular programs, also has a positive and somewhat strong correlation with the dependent variable, with a linear correlation coefficient of 0.598. For the third dimension, social education, the correlation with the dependent variable is positive and strong, with a linear correlation coefficient of 0.677.

- Coefficient of Determination, Adjusted Coefficient of Determination, Correlation Coefficient:

Table 14: Correlation Coefficient, Coefficient of Determination, Adjusted Coefficient of Determination

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
0.757	0.573	0.570

Source: Prepared by the researchers based on the outputs of SPSS V26.

From the table above, it is clear that there is a strong positive correlation between the independent variable entrepreneurial education and the dependent variable entrepreneurial intention, with a linear correlation coefficient of 0.757. The independent variable explained 57.3% of the dependent variable, and the adjusted coefficient of determination was 57%, which is very close to the coefficient of determination, indicating the quality of the proposed study model.

- Variance analysis table (ANOVA)

Table 16: Variance analysis table (ANOVA)

Model	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	Calculated F-Statistic	Probability Value Sig	Significance Level	Significance
Regression	57,012	3	19,004				Ctatistics 11-
Residuals	42,472	424	0,100	189,721	0.001	0.005	Statistically Significant
Total	99,484	427					Significant

Source: Prepared by the researchers based on the outputs of SPSS V26.

From the table above and based on the results of the Fisher test, the probability value of the model is 0.001, which is less than the significance level (5%). Therefore, we accept the hypothesis that the regression model is statistically significant and that at least one of the regression coefficients differs from zero. Thus, the model of the role of entrepreneurial education in enhancing entrepreneurial intention is statistically significant.

- Estimation and Testing of Model Coefficients:

Table 17: Estimation and Testing of Coefficients of Model 2 (Entrepreneurial Education and Entrepreneurial Intention)

Model	Coefficient	Probability Value Sig	Significance Level	Significance
Constant	-0,013	0.944	0.05	Not Statistically Significant
Methodological Programs	0,284	0.001	0.05	Statistically Significant
Extracurricular Programs	0,252	0.001	0.05	Statistically Significant
Social Education	0,470	0.001	0.05	Statistically Significant

Source: Prepared by the researchers based on the outputs of SPSS V26.

- The constant term was -0.013, which is not statistically significant since the Sig value is 0.944, greater than the statistical significance level of 5%.
- There is a positive effect of the Methodological programs dimension on enhancing entrepreneurial intention, where the coefficient value is 0.284, which is statistically significant based on a Sig value of 0.001, less than the statistical significance level of 5%. This leads us to **accept Hypothesis H₂₋₁**,

- which states that there is a positive and statistically significant effect of the Methodological programs dimension on entrepreneurial intention.
- There is a positive effect of the extracurricular programs dimension on enhancing entrepreneurial intention, where the coefficient value is 0.252, which is statistically significant based on a Sig value of 0.001, less than the statistical significance level of 5%. This leads us to accept Hypothesis H₂₋₂, which states that there is a positive and statistically significant effect of the extracurricular programs dimension on entrepreneurial intention.
- There is a positive effect of the social education dimension on enhancing entrepreneurial intention, where the coefficient value is 0.470, which is statistically significant based on a Sig value of 0.001, less than the statistical significance level of 5%. This leads us to accept Hypothesis H₂₋₃, which states that there is a positive and statistically significant effect of the social education dimension on entrepreneurial intention. This leads us to accept Hypothesis H₂, which states that there is a positive and statistically significant effect of entrepreneurial education on entrepreneurial intention.

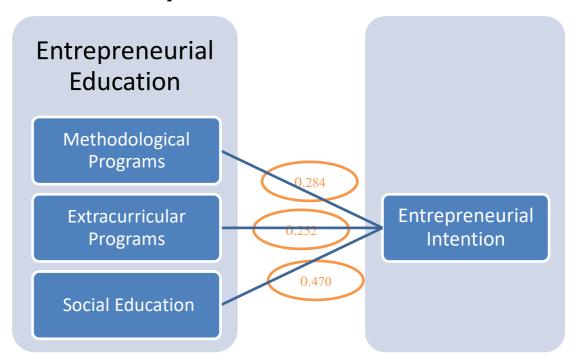


Figure 04: The Second Final Model of the Study **Source**: Prepared by the researchers based on the outputs of SPSS V26.

Conclusion

Through our theoretical and practical study, we found that entrepreneurial education plays a significant role in enhancing passion and entrepreneurial intention among students of the Faculty of Economic and Commercial Sciences and Management Sciences in the border desert regions (Ouargla, El Oued, Illizi). The universities provide a supportive social environment that encourages entrepreneurship through developed Methodological and extracurricular programs, which generates strong entrepreneurial passion and increases entrepreneurial intention. This study led to several conclusions:

- Methodological programs have a positive effect on increasing entrepreneurial passion and enhancing entrepreneurial intention among students. Universities offer a variety of advanced Methodological programs in entrepreneurship, which motivates students to create their own projects and enhances their passion.
- Extracurricular programs have a positive effect on entrepreneurial passion and intention. Universities provide regular extracurricular programs, such as training courses and seminars, which contribute to increasing students' passion for entrepreneurship and enhancing their intention to start their own businesses.
- The social environment has a positive effect on creating entrepreneurial passion and enhancing entrepreneurial intention. Universities have agreements with organizing institutions, supporting bodies, and financial institutions, which confirms that students have a supportive social environment that respects and promotes entrepreneurship.
- Entrepreneurial education enhances students' passion and desire to discover entrepreneurial opportunities, leading to increased intention and readiness to establish their own institutions.
- The general emotional state of entrepreneurial passion rooted in a specific context produces entrepreneurial intentions directed towards action that can lead individuals towards an entrepreneurial path.
- Students who feel entrepreneurial passion have strong positive feelings related to entrepreneurial activities they participate in and a strong motivational drive to pursue these feelings and develop them into entrepreneurial intention to start their actual projects without necessarily considering any conditions or obstacles.

Based on these results, we can propose the following recommendations:

- Generalize entrepreneurial education through programs and courses offered to students in all universities across the country to develop entrepreneurship and create successful entrepreneurs.
- Present successful entrepreneurs' experiences to students to encourage and motivate them, increasing their passion for entering the field of entrepreneurship.
- Offer educational days and involve students in entrepreneurial activities to enhance their entrepreneurial intention and increase their confidence in starting their own projects.

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