




# Evaluating the Curriculum of Technical and Vocational University Based on Entrepreneurial Intention Promotion Indexes

Maryam Baniameryan <sup>1,\*</sup>, Mohhamad Javadipuor<sup>1</sup>, Rezvan Hakimzadeh<sup>1</sup>, Kamall Dorani<sup>1</sup>, Ebrahim Khodaie<sup>1</sup> and Mohhamad Hasan Mobaraki<sup>1</sup>

<sup>1</sup>Faculty of Educational Sciences and Psychology, University of Tehran, Tehran, Iran

\*Corresponding author: Faculty of Educational Sciences and Psychology, University of Tehran, Tehran, Iran. Email: m.ameryan@gmail.com

Received 2018 June 23; Revised 2019 April 16; Accepted 2019 April 16.

## Abstract

**Background:** Technical and Vocational University, as the principal advocate of higher technical and vocational education, lists one of its missions as training high-skilled and entrepreneurial manpower. In addition, it has made a major effort by including an entrepreneurship course in its curriculum.

**Objectives:** Therefore, the main concern in this research is to know how much the entrepreneurial intention development is emphasized in the curriculums of higher-education Technical and Vocational University.

**Methods:** This research was a qualitative study and conducted by the descriptive-analytical method. The research data were collected and analyzed in two parts (documentary and interview with experts). The data collection tool was a semi-structured interview whose validity was confirmed by content validity method, and the reliability was confirmed by data triangulation method. Research data were analyzed by interview content analysis method, and the documentary part by the documentary method.

**Results:** The results showed that the objectives of the university's curriculum were to incorporate the entrepreneurial intention indexes such as entrepreneurial attitude promotion, pragmatism, and spiritual intelligence. However, the contents of the courses were formulated based on job specialties, and the intention indexes were not observed through them. In terms of teaching methodology, teacher-based methods such as speech and explanation were mostly used in practical courses and did not align with intention indexes such as theoretical courses and workshop. The applied methods of evaluation were mainly written, explanatory and in the form of practical exams (workshop courses) which did not match the entrepreneurial intention development approach.

**Conclusions:** The elements in the curriculums of Technical and Vocational University do not bear any adequate proportion to its stated objectives in terms of entrepreneurial intention development.

**Keywords:** Evaluation, Curriculum, Higher Education, University, Technical and Vocational, Entrepreneurial Intention

## 1. Background

Entrepreneurial intention in an individual can be defined as having serious thoughts about becoming an entrepreneur, struggling with all entrepreneurship problems, following entrepreneurial job objectives, being determined to start a business unit in the future and running a new business (1).

Studies point to the existence of various models of entrepreneurial intention and the factors that could influence them. Based on the research literature in this area, the factors affecting entrepreneurial intention can be categorized as external factors, such as social, economic, cultural, family, and important educational factors (1-3), and internal factors, including complexity, recognition, attitude, style-cognition, pragmatism, spiritual intelligence, and mental norms (4-9).

Developing and enhancing entrepreneurial intention

in students, especially those who receive higher technical and vocational education, is of paramount importance.

## 2. Objectives

Therefore, in the light of the fact that no other previous research has focused on evaluating the curricula of the Technical and Vocational University of Iran in terms of entrepreneurial intention, this study was conducted with the aim of determining the extent to which the present curriculums of this university are based on entrepreneurial intention indexes in learners.

## 3. Methods

This research is a qualitative study with the descriptive-analytical method conducted in the following two stages:

### - Stage 1:

Initially, the components of entrepreneurial intention were extracted based on the existing models in valid official documents and research literature. These components are shown in [Table 1](#).

**Table 1.** The Studied Entrepreneurial Intention Indexes in This Research

Row	Entrepreneurial Intention Indexes	Elements
1	Recognition of complexity	The perceptive map, knowledge structures, cognitive images, and uncertainty in the environment
2	Attitude (intention toward behavior)	Intention to succeed, the perceived personal control (the internal control center), the perceived self-esteem, creativity and innovation, discern, and utilize the opportunity
3	Style recognition	How to perceive, think and solve problems, learn and communicate with others
4	Perceived behavioral control (Pragmatism)	An individual's intention to think on a decision
5	Spiritual intelligence	Critical existential thinking, creating individual meaning, transcendental awareness, developing awareness
6	Mental norms	Assertive beliefs on the definite behavior based on cultural attitudes, individuals attitude, social networks, family, friends, colleague, and others

### - Stage 2:

Then, based on the extracted components, a semi-structured interview was conducted with a statistical sample of the research.

The statistical population of the study consisted of all the teachers of the Technical and Vocational University. In accordance with the objective of this research, the sampling was targeted, using the snowball method. The criteria for the selection of the instructors were a minimum of 10 years of continuous technical and vocational instruction at the University and a minimum of master's degree in relevant fields. Therefore, each interviewee introduced other instructors with relevant experience to the aim of the research. The interview was conducted to achieve data saturation and two other interviews were conducted to ensure this saturation. A total of 9 interviews were conducted, and the last two were removed due to the overlap with the results of the other interviews.

Faculty members were interviewed regarding the main elements of curriculums and their relevance with entrepreneurial intention indexes.

In the third stage, the interviews were recorded in the written form, and the researchers' designated concepts were extracted from the texts of the interviews. To ensure

the validity of these concepts, they were returned to the interviewees and were approved by them. Then they underwent qualitative content analysis as valid research data.

The qualitative approach was used to collect data, and the faculty members of Technical and Vocational University (Enghelab-e Eslami Technical College and Dr. Shariati Technical College) were asked a number of questions in semi-structured interviews.

The criteria for selecting a statistical sample were at least ten years of continuous teaching at the Technical and Vocational University, a minimum master's degree, and willingness to participate in the research. The interviewees were assured that their personal information would remain confidential, the information obtained from the interview would be used solely for scientific research, and the published results would only be used for improving the quality of the curriculums. For these aims, ID codes were used instead of the participants' actual names. To conduct this research, we obtained permission from the university officials, and the interviews were conducted with the consent of all the participants. The results of the interviews are presented in two parts based on the research questions in [Tables 2 - 4](#).

Data triangulation method was applied to verify the accuracy of the data obtained from the interviews. Therefore, in tandem with an analysis of the interviews, the syllabus of the entrepreneurship course at the Technical and Vocational University also underwent a qualitative content analysis, based on the components of entrepreneurial intention and previous studies on the curriculum of this university.

In analyzing the syllabus of entrepreneurship course (The syllabus that was approved and officially announced by TVU in 2016), the main criteria were the use of the components of entrepreneurial intention ([Table 1](#)), or equivalent terms in aims, contents, methods, and evaluation methods. [Table 5](#) displays the results of the syllabus analysis for the Entrepreneurship Course, based on the components of the entrepreneurial intention. The research data were collected from September 2017 to September 2018.

Data analysis method in this research was qualitative content analysis in which the concepts and themes relevant to the research objectives were extracted from semi-structured interviews. Then they were compared with the previous documents (the ones describing the curriculums of Technical and Vocational University) and the syllabus of the entrepreneurship course, using the data triangulation method.

### 3.1. Sampling Method and Volume

The sampling method of this research was purposive and the selected population was the people who taught formally in the Technical and Vocational University, who were willing to take part in the interview and who had authority

**Table 2.** The Results Obtained from Interviews About the First Objective

Code	Objectives	Contents of Curriculum	Teaching Methods	Evaluation
1	Practical and scientific learning of jobs (job creation), learning skills to participate in workplace	Based on the educational field, including professional, general, and practical courses	Speech (questions and answers) and pervasive presence in workshop (the instructor's initial explanation is followed by the students' participation in scientific activities under his/her supervision)	Written and practical exam, project submission
2	Learning a specific profession and job, learning skills	Based on the previously indicated chapters, the issues related to the mentioned profession, including general, professional, and practical courses	Explanatory, speech, practical work in the workshop	Written and practical exam, regarding the desired skill
3	Learning skills in an academic environment means that both professional academic knowledge and manual skills are taught	General, professional, and workshop courses	Explanatory, speech, learning in the workshop	Written and practical exam in workshop courses
4	Learning jobs scientifically, readiness for the presence in a workplace as a specialist	Professional and practical courses related to the academic field; General courses for all fields. The syllabi were predetermined	Explanatory, question and answer	Written and practical exam in workshop courses, project submission
5	Readiness to participate in workplace, learning techniques, and professions	It includes the practical and scientific knowledge of the academic field, which is predetermined	Speech and practice in the workshop	Written and practical exam
6	Learning techniques and professions, job training	General, professional, and workshop courses	Speech, explanatory, question and answer	Written and practical exam, project submission
7	Readiness to participate in the job market. Learning a profession based on the careers in job market	The predetermined syllabi and the content of each course are determined by it. It includes general, specialized, and practical courses	Explanatory, working at workshop, question and answer	Written and practical exam; project submission

over the curriculum of this university. In addition, chain sampling method was used in this interview, according to which a researcher can seek the participants' assistance to find more participants with greater access to data (10).

### 3.1.1. Data Collection Tool

A semi-structured questionnaire was used in this research. The questions of the interview were prepared based on the objective of this research and were modified and confirmed based on the views of the curriculum faculty members (content validity). Data triangulation method was applied to determine the reliability of the data obtained from the interviews.

### 3.1.2. Data Analysis Method of the Research

The qualitative data analysis was conducted by interview content analysis. The stages of interview content analysis process were based on Krippendorff's idea (11), including data collection, data reduction, deduction, and analysis.

## 4. Results

The first specific objective of the study was to determine the contents of the curriculums at the Technical and

Vocational University. Table 2 provides detailed information about the contents, objectives, teaching methods, and evaluation methods.

Table 2 elaborates on the contents of the curriculums at the Technical and Vocational University in general.

The second objective of this study was to find out the condition of the curriculums at the Technical and Vocational University regarding the development of entrepreneurial intention among learners.

Accordingly, the components of the entrepreneurial intention were announced to the interviewees, and they were requested to identify the sections of the curriculum in which these factors were or were not addressed.

The findings related to this objective are shown in Tables 3 and 4.

The interviews suggest that the faculty's teaching methods are generally speech and explanation, and the applied method in the workshop courses is the teacher-student method (Table 3).

Table 4 shows the results of the data analysis from Tables 2 and 3. It reflects the interviewees' opinions regarding the components of the entrepreneurial intention in the curriculums of the university and indicates which components are or are not addressed in each element of these curriculums.

**Table 3.** The Results Obtained from an Interview About the Second Objective

Code	Objectives	Contents of Curriculum	Teaching Methods	Valuation
1	The objectives of the curriculums were formulated based on the professions and job fields, and incorporate entrepreneurship debates in terms of employment	The syllabi are clear and some of them are not suited to the present condition of the job market. The entrepreneurship idea is not present in the topics, unless an instructor in a particular field discusses market issues in his/her class	Project submission methods and some practical activities that lead to production are suitable for motivating students toward entrepreneurship. They are applied in some courses	Evaluation methods are applied to assess the learners' knowledge and skills in their educational field
2	Academic disciplines in the Technical and Vocational University for employment in the job market	The contents of the courses are derived from the specialized topics of the courses and skills required for an occupational field. The general debates on entrepreneurship are provided in entrepreneurship courses	Teaching-learning activities depend on the related courses. In some courses, particularly the practical ones, such activities enhance the students' motivation toward entrepreneurship	No. Except for those courses whose evaluation method involves the implementation of a project
3	The main objective in the curriculums of the Technical and Vocational University is learning an occupation that results in employment or recruitment in factories. Entrepreneurship was mentioned as a general objective of this University	The contents of professional courses are based on the special concepts in such courses, and entrepreneurship is not mentioned in their contents. The entrepreneurship course is taught separately in the entrepreneurship course unit	Yes, but in practical courses. Some practical courses draw the learners' attention to the job market. The theoretical courses are mostly presented as speech	The evaluation methods mostly assess the learner's knowledge in that skill, and play no role in motivating them toward entrepreneurship
4	The main objective is to learn the required skills for an occupation, which is fully aligned with entrepreneurship. Entrepreneurship is the result of learning a profession	The contents of the courses are specialized and related to learning a profession. Entrepreneurship is taught independently in other course units	Learning-teaching activities are explanatory and in the form of speech. In some cases, the instructor creates motivation toward entrepreneurship. However, in general, that is not the case	Evaluating the project and workshop skills can help the students to become entrepreneurs
5	The main objective of the curriculums in each field is to teach skills. Entrepreneurship is also a part of the curriculums	The entrepreneurial concepts are taught in the entrepreneurship course. The other courses are specialized and related to the learners' disciplines	Yes. In some cases, the student is more inclined to become an entrepreneur, depending on the course and the lecturer's explanations. But it seems less likely in theoretical courses	No. Evaluation methods are not related to entrepreneurship, unless, we consider a person's skills as a factor in becoming an entrepreneur
6	Entrepreneurship is one of the most important objectives of this University. Therefore, the entrepreneurship course is included alongside other courses in various fields	Entrepreneurship course is included in the curriculum of every field. However, it is not integrated into other courses. Every course focuses on its own relevant subjects	Learning-teaching activities are explanatory and in the form of speech. Practical activities take place only in practical courses. It cannot be claimed that they make students as entrepreneurs	No. It is not relevant to developing the intention in students to become entrepreneurs
7	The main objective of the curriculums in this University is to learn an occupation. By learning an occupation an individual is more likely to become an entrepreneur. Entrepreneurship is stated among the objectives of the curriculums	The contents of the curriculums include specialized, general, and workshop courses. Entrepreneurship course is also included in every field. Entrepreneurship concepts are taught in only in the entrepreneurship course	Workshop activities can increase this potential in students	Evaluating practical courses can help an individual with entrepreneurship intention. However, the evaluation is generally used to assess learning rather than developing the entrepreneurial intention

The syllabus of the entrepreneurship course, offered at the colleges of the university, underwent qualitative content analysis based on the reference to the components of the entrepreneurial intention or equivalent concepts. This analysis was carried out simultaneously with semi-structured interviews with the statistical sample, in order to verify the accuracy of the data analysis. The results of this analysis are indicated in [Table 5](#). The table displays which components of the entrepreneurial intention are or are not addressed in the approved syllabus of this course.

In spite of the appropriate objectives stated in the curriculums, the contents of these curriculums largely em-

phasize mere skill learning. They can, to some extent, incorporate the components of entrepreneurial intention such as pragmatism, elements of using opportunities, and the desire to succeed ([Table 5](#)).

The analysis of the syllabus in this course indicates that it is generally presented to the learners in two sections, knowledge and skills. Knowledge section deals with concepts such as entrepreneurship, creativity and innovation, and skill section focuses on financial management, accounting, and business. In terms of entrepreneurial intention development indexes, the imparted skills deal with pragmatism, attitude, mental norm, and style cognition.

**Table 4.** The Results of Analyzing the Interviewees' Answers Based on the Entrepreneurial Intention Components and Elements

Row	Index	Elements	Sampling Based on Results of the Interview			
			Objectives	Content	Teaching Method	Valuation
1	Cognitive complexity	Perceptive map	*	-	-	-
		Cognitive structures	*	-	-	-
		Cognitive image	*	-	-	-
		Uncertainty in the environment	*	-	-	-
2	Attitude (intention toward behavior)	Intention to success	*	-	*	-
		Internal control center	*	-	-	-
		Self-esteem	*	-	-	-
		Creativity and innovation	*	*	-	-
		Identifying and seizing the opportunity	*	*	*	-
3	Style cognition	How to perceive	-	-	-	-
		Thinking and problem solving	*	*	-	-
		How to learn and communicate with others	*	*	-	-
4	(Pragmatism)	An individual's intention to implement a decision	*	*	-	*
5	Spiritual intelligence	Critical thinking	*	-	-	-
		Making personal meaning	-	-	-	-
		Transcendental awareness	*	-	-	-
		Developing awareness	-	-	-	-
6	Mental norms	An individual's mental beliefs based on others' opinions	*	-	-	-
		The individual's subjective beliefs based on social and cultural attitudes	*	*	-	-

The other components, namely spiritual intelligence and cognition complexities, are totally neglected (Table 5).

## 5. Discussion

Given the importance of entrepreneurial intention in entrepreneurial behavior, many studies have been conducted on the effectiveness of the curriculums implemented in Iranian higher education. Among them, one can point to the studies by Jalayer (12), Baghersad et al. (13) and Heidari (14). These studies have examined the views of alumni to evaluate the entrepreneurial intention of learners after education.

In distinction to previous studies, the present research specifically examines the efficiency of the elements of a curriculum in enhancing the learners' entrepreneurial intention. In this sense, it analyses the elements of a curriculum in progress (aims, content, teaching methods, evaluation methods). Therefore, its results can prove highly effective in revising and modifying educational curricula.

In research by Linan et al. (15), the components of entrepreneurial intention are considered the concepts that can be imparted to the students, and it is emphasized that they should be addressed in all elements of curricula. The studies by Turker and Sonmez Selcuk (3), Sánchez (16), and Souitaris et al. (17) also examined the components of the entrepreneurial intention, and in their results, it is maintained that these components can be developed via education.

The results of the present study show that in spite of the proper objectives stated in the curriculums of TVU, the contents of these curriculums largely emphasize mere skill learning. They can, to some extent, incorporate the components of entrepreneurial intention such as pragmatism, elements of using opportunities, and the desire to succeed. Entrepreneurship course in this university is offered as a supplementary course with the objective to turn the learners into entrepreneurs. The analysis of the syllabus in this course indicates that it is generally presented to the learners in two sections, knowledge, and skills. Knowledge section deals with concepts such as en-

**Table 5.** Case Study of Entrepreneurship Course Syllabus Versus the Components of Entrepreneurial Intent

Row	Component	Elements	Examples in the Entrepreneurship Course Syllabus
1	Cognitive complexity	Perceptive map	***
		Cognitive structures	***
		Cognitive image	****
		Uncertainty in the environment	Dangers and factors of entrepreneurs' failure
2	Attitude (intention toward behavior)	Intention to success	Attractions and motivational factors of entrepreneurship (entrepreneurial motivations)
		Internal control center	What is the internal control center?
		Self-esteem	***
		Creativity and innovation	Elements and process of creativity; the necessity of creativity role; creativity development; obstacles to creativity; patterns of Elbresh and Amy Bailey; Teaser knowledge; innovation and its process; the difference between innovation and creativity; all types of creativity; levels of innovation
3	Style cognition (logical-intuitive)	Identifying and seizing the opportunity	Arrangement and leadership in business, marketing research; advertisement and its objectives; advertising media
		How to perceive	-
		Thinking and problem solving	Brainstorming technique, reverse brainstorming technique; Delphi technique; synectics technique; fishbone technique; Scamper technique
4	Perceived behavioral control (pragmatism)	How to learn and communicate with others	Organization and leadership in business
		An individual's intention to implement a decision	Business management stages; planning to establish and run a business; commercial and non-commercial business; all types of commercial corporation and their responsibilities; regulations for the establishment of the commercial corporations; business laws; trademark; the benefits of trademark; the concept of the exclusive right, copyright laws; financial management, financial activity, capital resources; balance sheet (asset-debt-capital), profit and loss account, income and expenses; break-even point; marketing and its tools, the characteristics of a good advertisement, methods of selling more, finding more customers; establishing and running small businesses; methods of changing them to the big businesses-one-page job plan
5	Spiritual intelligence	Critical thinking	-
		Making personal meaning	-
		Transcendental awareness	-
		Developing awareness	-
6	Mental norms	Mental beliefs of an individual based on others' attitude	Economic, social, cultural and moral effects of entrepreneurship
		The individual's subjective beliefs based on social and cultural attitudes	Economic, social, cultural and moral effects of entrepreneurship

entrepreneurship, creativity, and innovation, while skill section focuses on financial management, accounting, and business. In terms of entrepreneurial intention development indexes, the imparted skills deal with pragmatism, attitude, mental norm, and style cognition. The other components, namely spiritual intelligence and cognition complexities, are totally neglected.

With regard to teaching-learning activities, the results of the interviews suggest that the faculty's teaching methods are generally speech and explanation, and the applied method in the workshop courses is the teacher-student

method which is not consistent with entrepreneurial intention promotion indexes in learners. Teaching-learning activities are an important part of any curriculum for developing the intention in learners, and the results of many studies have confirmed that pervasive-based, inductive, and practical techniques are essential in developing entrepreneurial intention in learners. The scientific techniques include internship, practical visits, individual projects, problem-solving, seminars and business plans, the presence in real entrepreneurial environments, group-learning methods, cooperation and communication with

entrepreneurs.

For the evaluation methods, the findings of the interviews also show that the faculty members' evaluation methods are mainly written, oral, and multiple-choice exams. In some cases, the project evaluation method is used and in the workshop courses, the relevant skills are evaluated by the instructors. The findings of this research indicate that the faculty's evaluation methods are not in accordance with entrepreneurship intention development in learners.

Our assessment of the curriculums in the Technical and Vocational University demonstrates that, in spite of the emphasis on motivating the learners to have entrepreneurial behavior in their objectives, the entrepreneurial intention indexes have been neglected in the contents of the courses, especially in the teaching-learning activities and evaluation methods.

### Acknowledgments

We thank our colleagues from the Technical and Vocational University who provided insight and expertise that greatly assisted the research, although they may not agree with all of the interpretations/conclusions of this paper. The authors wish to thank the teachers participating in the experiment.

### Footnotes

**Authors' Contribution:** Maryam Baniameryan devised the study concept, designed the study, supervised the intervention, data collection and analysis, participated in the coordination of the study, and critically revised the manuscript. She also collected data, ran the study intervention, participated in the study concept, performed the analyses and revised the manuscript. Mohhammad Javadipoor and other authors contributed to the design and analysis of the study data, and drafted the manuscript.

**Conflict of Interests:** The authors declare that they have no conflict of interests.

**Funding/Support:** No funding was provided for this work.

**Patient Consent:** This research was conducted with the consent of the participants.

### References

- Liñán F. Skill and value perceptions: How do they affect entrepreneurial intentions? *Int Entrepreneurship Manage J*. 2008;**4**(3):257-72. doi: [10.1007/s11365-008-0093-0](https://doi.org/10.1007/s11365-008-0093-0).
- Boyd NG, Vozikis GS. The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory Prac*. 2017;**18**(4):63-77. doi: [10.1177/104225879401800404](https://doi.org/10.1177/104225879401800404).
- Turker D, Sonmez Selcuk S. Which factors affect entrepreneurial intention of university students? *J Euro Indust Train*. 2009;**33**(2):142-59. doi: [10.1108/03090590910939049](https://doi.org/10.1108/03090590910939049).
- Shane S, Venkataraman S. The promise of entrepreneurship as a field of research. *Acad Manage Rev*. 2000;**25**(1):217-26. doi: [10.5465/amr.2000.2791611](https://doi.org/10.5465/amr.2000.2791611).
- Izquierdo E. *Impact assessment of an educational intervention based on the constructivist paradigm on the development of entrepreneurial competencies in university students [dissertation]*. Ghent University; 2008.
- Krueger NF. *The microfoundations of entrepreneurial learning and... education: The experiential essence of entrepreneurial cognition*. 2009.
- Liñán F, Chen YW. *Testing the entrepreneurial intention model on a two-country sample [dissertation]*. Spain: Universitat Autònoma de Barcelona; 2006.
- Farmer SM, Yao X, Kung-Mcintyre K. The behavioral impact of entrepreneur identity aspiration and prior entrepreneurial experience. *Entrepreneurship Theory Prac*. 2011;**35**(2):245-73. doi: [10.1111/j.1540-6520.2009.00358.x](https://doi.org/10.1111/j.1540-6520.2009.00358.x).
- Ajzen I. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *J Appl Soc Psychol*. 2002;**32**(4):665-83. doi: [10.1111/j.1559-1816.2002.tb00236.x](https://doi.org/10.1111/j.1559-1816.2002.tb00236.x).
- Hennink MH, Hutter I, Bailey A. *Qualitative research methods*. London: Sage Publications; 2011.
- Krippendorff K. *Content analysis: An introduction to its methodology*. London: Sage; 2013.
- Jalayer H. *[The impact of cognitive and non-cognitive skills on the entrepreneurial intention of the last-year students in technical, vocational, and professional branches] [master's thesis]*. University of Tehran; 2015. Persian.
- Baghersad V, Zali MR, Razavi SM, Saeed Banadaki S. The effect of entrepreneurship education on the intent of entrepreneurship in technical and vocational students. *Entrepreneurship Dev*. 2013;**6**(4):36-21.
- Heidari A. *[The effect of stylistics and metacognition on the entrepreneurial intention of entrepreneurship students at the University of Tehran] [master's thesis]*. University of Tehran; 2016. Persian.
- Linan F, Rodríguez-Cohard JC, Rueda-Cantuche JM. Factors affecting entrepreneurial intention levels: A role for education. *Int Entrepreneurship Manage J*. 2010;**7**(2):195-218. doi: [10.1007/s11365-010-0154-z](https://doi.org/10.1007/s11365-010-0154-z).
- Sánchez JC. University training for entrepreneurial competencies: Its impact on intention of venture creation. *Int Entrepreneurship Manage J*. 2010;**7**(2):239-54. doi: [10.1007/s11365-010-0156-x](https://doi.org/10.1007/s11365-010-0156-x).
- Souitaris V, Zerbinati S, Al-Laham A. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *J Bus Vent*. 2007;**22**(4):566-91. doi: [10.1016/j.jbusvent.2006.05.002](https://doi.org/10.1016/j.jbusvent.2006.05.002).