

Designing an effective entrepreneurial attitude model on students' entrepreneurial intention (Case study: Islamic Azad University - Central Tehran Branch)

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Abstract

Today, partially due to the current crisis and the high rate of youth unemployment, the labor market is increasingly returning to the issue of entrepreneurship education; Therefore, academic education is facing new challenges that include preparing students to enter the labor market. Although entrepreneurship education has been integrated into new university academic degrees as a result, it is not enough to strengthen entrepreneurship among students and there is a need to develop the level of entrepreneurship of students. Therefore, universities are one of the most important centers for teaching entrepreneurial skills and encouraging students towards entrepreneurial attitudes. This article has focused on the design of an effective entrepreneurial attitude model on the entrepreneurial intention of students with an emphasis on entrepreneurship education. This research is applied in terms of purpose and qualitative in terms of method. The qualitative research community consists of 10 university professors and experts. To analyze the qualitative data, the qualitative method of theme analysis and MAXQDA software were used. The qualitative findings of the research showed that the level of entrepreneurship was placed in 5 main themes and 15 strategic components were obtained in the field of entrepreneurship. The components are creativity with 3 components (idea generation ability, experience acquisition, knowledge acquisition), innovation with 4 components (absorption and development of new technologies, innovative manpower, market knowledge and analysis, competitiveness), self-esteem with 3 components (self-knowledge, self-belief, improving psychological characteristics), risk-taking with 3 components (uncertainty conditions, risk-taking strategic measures, financial support) and perceived behavior control with 2 components (perceived internal behavior control, perceived external behavior control) and is aimed at creating an entrepreneurial attitude in morale students. Risk taking should be emphasized in them. Finally, according to the conceptual model presented in this research, an Interpretive Structural Modelling was performed in the leveling of the components.

Keywords: entrepreneurial attitude, entrepreneurial intention, Islamic Azad University student
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1 Introduction

Researchers have paid much attention to entrepreneurial processes during the past ten years [22]. However, one of the universities' most significant goals is to provide the highly skilled labor force that society requires [1]. For students to enter the workforce after graduation and launch new, successful firms, universities should educate them on the required skills and encourage them to pursue entrepreneurship [13]. One of the most effective strategies to foster an entrepreneurial spirit among students is developing institutions' knowledge infrastructure (May 2020). Entrepreneurship training aims to grow, improve, and develop the attitudes, skills, and talents of non-entrepreneurs while transferring the knowledge and information necessary to launch and operate a firm [16]. The degree of entrepreneurial tendencies, actions, and passion are influenced by entrepreneurship education, which impacts the emergence of new enterprises in the national economy. Few studies employ entrepreneurial purpose as a potent scientific framework in academic circles, even though it is a fast-developing field of study.

Identify the traits and abilities that make a person a great entrepreneur and set him apart from the competition. He may make them grow by creating learning procedures and regular training. This is what the entrepreneurial mentality in colleges attempts to do [10]. Contrarily, the entrepreneurial intention is a person's desire and first preference to launch a new firm [4]. Additionally, it is described as a person's desire to work for themselves, founding a business, and make it successful. Every year, more students graduate from management-related programs than there are available jobs for them, which creates issues including unemployment, economic hardship, and the loss of these individuals' abilities and skills [3]. As a result, these students should consider starting their own businesses and creating jobs that match their skills [6]. At this point, we need to understand the dimensions and elements of an entrepreneurial attitude based on the research that has been done and how universities can support students in this area. As a result, entrepreneurship development processes in universities ought to be seen as one of the necessities of the current century, also known as the information age, which has had an impact on things like globalization, the acquisition of new technologies, swift changes in exchanges, fierce competition in the business world, etc. [20]. Academic entrepreneurship may be seen as a driver of growth and development in such a setting, as well as one of the most significant determinants of student's ability to achieve their ideal futures [7]. Three components make up an entrepreneurial mentality in each model: emotion, cognition, and behavior.

The emotional component, which comprises values and feelings, is connected to how we feel about an item. A person's emotional state influences whether they perceive their action to be favorable or bad. The behavioral component relates to habitual patterns generated from prior actions and the predisposition to act in a given way, while the cognitive component shows a person's uncritical ideas and thoughts regarding an attitude [17]. Therefore, one of the most significant and comprehensive university activities that directly influence the entrepreneurial aim is entrepreneurship education. Due to the substantial influence that entrepreneurship has on society and people's lives, entrepreneurship education is crucial, particularly for the educated class. The construction of an efficient entrepreneurial attitude model on students' entrepreneurial intention with a focus on entrepreneurship education, which has the potential to alter university teaching practices, is where this research innovates.

Five parts make up this research; the first part provides an overview of the research as well as the justification for picking it. The research literature is studied and appraised in the second section. The third section introduces the research methodology and data-gathering process. The research's findings are presented in the fourth section, and the conclusions and suggestions for more research are presented in the fifth section.

2 Literature review

In order to better understand the relationship between entrepreneurship and entrepreneurial mentality, the previous study contains a variety of theories and reviews. There is no broad agreement in this respect due to the intricacy of the problem, which has caused the presentation of highly disparate outcomes. The complexity of this topic demonstrates that, despite the development of multiple study streams, a greater comprehension of how entrepreneurial mindsets influence student entrepreneurship has not yet been completely studied. The entrepreneurial mindset is sometimes viewed as a concept that exists outside of institutional, social, political, and cultural contexts. This problem could help to explain why the study of the interactions between these two domains is still in its early stages [19]. Finally, entrepreneurship and entrepreneurial attitude are multi-level phenomena, and much attention has been given to this field and the reciprocal level processes that link entrepreneurship and entrepreneurial attitude. Advancement in entrepreneurship research can be aided by this topic. By combining bibliographic analysis and reference review, the aim of this part is to offer an overview of past, current, and future research in the area of entrepreneurial mentality and entrepreneurship. While other studies [2, 11, 21] attempted to study these relationships using source studies, we did not employ bibliographic analysis to evaluate statistical trends and give an educational overview of important viewpoints

in business and economics. In order to assure clearer clarity of the highlighted text elements, we used qualitative content analysis to examine the 30 effective articles that serve as the foundation for this study topic. The next step involved conducting a systematic review of resources using a large database, which led to the analysis of 50 articles in order to get a better understanding of recent studies that examine entrepreneurial attitude and entrepreneurship at various levels, including individual, organizational, and social levels.

The entrepreneurial mindset model based on intellectual and social capital with the mediation of organizational commitment was introduced by [15]. The results demonstrated a direct and significant relationship between intellectual capital and organizational commitment and entrepreneurial attitude, a direct and significant relationship between organizational commitment and entrepreneurial attitude, and a direct and significant relationship between organizational commitment and entrepreneurial attitude. Additionally, organizational commitment served as a substantial and indirect intermediary between intellectual and social capital and entrepreneurial mindset. Mehr Ali [14] looked into the elements of entrepreneurial mentality in Tehran's managerial positions in both the public and private sectors. The results show that the elements of personal control and self-esteem have different components. Empirical research on the entrepreneurial mindset and objectives of diploma students in Chennai was carried out by [18]. Because of this, it has been demonstrated that people's personality characteristics, psychological tendencies, and behavioral strategies have increased in relation to the area of entrepreneurship. Students in the Faculty of Economics and Business at Widatama University were studied by Doan et al. [8] to determine the impact of entrepreneurship education and the direction of entrepreneurial attitude toward the entrepreneurial intention. The research's conclusions show that lectures, which are the most successful component of entrepreneurship education, and curriculum, which is the least effective component, are both achieved. Gough [12] investigated the connection between entrepreneurial ambitions and attitudes in experiential learning. These findings might have an impact on how entrepreneurial education is designed and implemented, particularly with reference to results-based learning and andragogy (adult learning) theory.

The evaluation defines entrepreneurial attitude as a collection of behaviors in which the entrepreneur dealt with situations in which the majority of decisions were made using the executive standards that were in place at the time. In this sense, the entrepreneurial mindset may be viewed as a normative or critical reflection of the mindset itself. The entrepreneurial mindset generally proposes excellent or undesirable contractual concepts and norms. Each person consciously or subconsciously internalizes these norms and concepts, which represent societal moral standards. The entrepreneurial mindset essentially serves as a technique for encouraging people to think critically or independently, which results in the presenting of independent or reflective conclusions about entrepreneurial concerns. The area of entrepreneurial mindset and entrepreneurship is investigated using the bibliographic analysis technique in the accessible sources [5]. In 2017, a procedure for conducting a bibliographic study was conducted, concentrating on works in the fields of business and economics that were accessible through the scientific collection network between 1983 and the end of 2016. With the phrases "entrepreneur" (entrepreneurship, entrepreneurial) and "entrepreneurial mindset", keyword searches were carried out that was similar to the bibliographic procedures used by scholars [9] (Moral, ethics).

Although articles, conference proceedings, and books are the dataset's primary emphasis, additional document categories, including meeting abstracts and editorial materials, are also taken into account. The single evaluation was done in English (as a scientific language). Seven hundred nineteen items in total were categorized in this review after meeting the criteria. The core data set is 719, which solely consists of articles, reviews, and letters and is used to determine the most significant journals in the disciplines of entrepreneurship and entrepreneurial mentality. This search produced 550 publications, which are spread out over 341 sources. A powerful network analysis software tool called VOS analysis is used to visualize the dynamics and structure of science as well as to carry out keyword analysis for in-depth reviews and the study of intelligent structures in the research field. The results of the bibliographic survey's keyword analysis are based entirely on the quantitative aspects of establishing links between variables. However, it is feasible to draw conclusions from the quantitative data as to why we carried out a quantitative resource analysis of the 30 most cited articles. Here, broad statistical trends can be seen, which helps to better understand the nature of the study area. Based on how well the articles' keywords matched up with the text throughout this procedure, the articles were grouped into clusters (Table 1).

Table 1: Occurrence of important keywords (source: details from VOS)

No	Keywords	Occurrence	Relationship power
1	Entrepreneurial attitude	162	143
2	Entrepreneurship	153	139
3	Entrepreneurial attitude in business	82	70
4	Performance	58	56

5	Management	53	47
6	Organizations	46	45
7	Behavior	41	41
8	Model	39	39
9	Corporate social responsibility	41	34
10	Innovation	38	37
11	Social Entrepreneurship	36	33
12	Business	34	33
13	Attitude	32	31
14	Decision-making	29	29
15	Stability	29	28
16	Corporate social responsibility	24	24
17	Stakeholder theory	22	22
18	Entrepreneurship	23	22
19	Responsivity	23	21
20	Strategy	23	21
21	Values	22	21
22	Training	21	21
23	Government	20	20
24	Framework	19	19
25	Labor	19	19
26	Managers	17	18
27	Validity	17	16
28	Policy	16	16

The threshold limit is set at 5, as seen in Figure 1, meaning that a term must appear at least five times in the article. According to the study, the two most crucial keywords were entrepreneurial mentality, which was used 162 times throughout the text, and entrepreneurship, which was cited 153 times. Considering that keyword occurrence analyses the most common keywords and identifies those that are mentioned more frequently in related articles, this issue also suggests that the association between the two terms is remarkably strong.

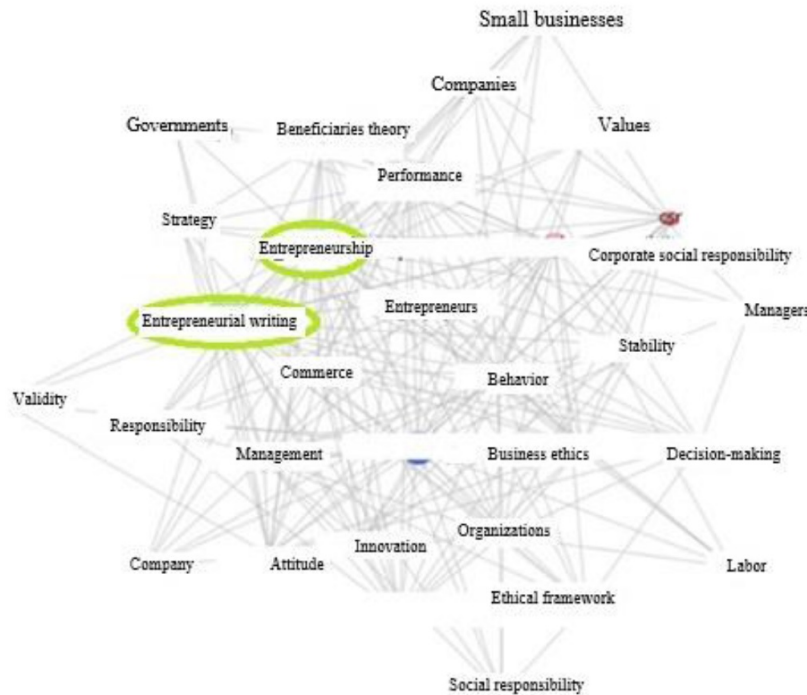


Figure 1: Occurrence of keywords in research related to entrepreneurial attitude and entrepreneurship

The topic of entrepreneurial attitude is an important aspect of entrepreneurial intention, as shown by the systematic examination of research literature, and it requires a more in-depth evaluation and study.

3 Methodology

Indeed, the research strategy involves both the technique for gathering data and the intellectual underpinnings of the study plan. Following the qualitative paradigm was necessary for this study because it adopted a multifaceted approach to the entrepreneurial attitude model, which is effective in influencing students' entrepreneurial intentions. It also placed a focus on entrepreneurship education and sought to understand how to explain the phenomenon in its actual context. The study topic was solved using a qualitative approach, which involved creating a model to better understand the aspects of the entrepreneurial mindset that influence students' entrepreneurial intention with a focus on entrepreneurship education. Ten academics and specialists from Islamic Azad University's Central Tehran branch were chosen for the research community using the snowball approach. The theme analysis approach has thus been applied to determine the elements and indicators of the entrepreneurial mindset model effective on students' entrepreneurial intention, with a focus on entrepreneurship education. There are 6 phases in this process: Understanding the data, developing initial conceptual codes, looking for codes, reviewing themes, defining and identifying the key themes, and preparing a report are the first four steps. In the second stage, which comes after presenting the conceptual model, the discovered variables are leveled using interpretative structural equations.

The concept of Interpretive Structural Modeling (ISM) was initially employed to examine issues pertaining to intricate social and economic systems. ISM is a sort of structural modeling technology and a frequently utilized analytical approach in contemporary systems engineering. This approach breaks down complex analysis into various subsystem components, draws on human knowledge and experience as well as computational intelligence, and ultimately creates a multi-level hierarchical interpretive structure model. This approach is defined by breaking down a complicated system into multiple smaller systems and identifying linkages between various components to produce a structure diagram and structured matrix. This model is particularly useful for understanding the structure of systems with numerous variables and intricate interactions because it may turn a crucial social and economic concept into an intuitive system with sound structural linkages. Fuzzy and complex systems can be made clearer and easier to understand by computing and transforming the pertinent matrix. It is possible to set up a hierarchical interpretive structure model at the same time to facilitate systematic analysis and perform a potent explanatory function. The ISM technique consists of seven phases, including 1. Determination of the key entrepreneurial elements; 2- Creation of the self-interaction structural matrix (SSIM), 3- Creation of the initial achievement matrix (RM), 4- Creation of the updated achievement matrix (final achievement matrix), 5- Determination of indicator level, 6- Creation of the final structural model of interpretation, and 7- Analysis of the influence-dependence table.

Cochran's equation is used for statistical sampling in the ISM method:

$$n = \frac{Z^2 pq}{d^2} \quad (3.1)$$

In this Z formula, the confidence level of the statistical population is based on the assumption of normality of the distribution, which in this research, the confidence level is 95% ($Z = 1.96$); d is also the allowed error value (error value) which is set at 0.05 in this research ($d = 0.05$); p and q are also considered equal to 0.5 ($p = q = 0.5$):

$$n = \frac{1.69^2 \times 0.5 \times 0.5}{0.05^2} = 10 \quad (3.2)$$

4 Findings

The implementation process is described in this section based on the problem being studied and the research plan.

Stage 1: Familiarity with the data: The researcher must somewhat immerse himself in the data in order to become familiar with the breadth and variety of information connected to creativity on entrepreneurial purpose with a focus on entrepreneurship education. Immersion in data often entails actively reviewing the data and "repeating the data" (looking for meanings and patterns).

Stage 2: The development of fundamental conceptual codes from the data is a part of this phase. The analyst's favorite aspects of the data are introduced using codes. The common and equivalent characteristics of these types of characteristics can be used to identify these codes, which may be directly and explicitly present in the text or

hidden. Open coding was utilized to collect primary data for the study question, "How is creativity effective on the entrepreneurial intention of students with an emphasis on entrepreneurship education?"

Stage 3: Theme search: This stage entails sorting all coded data summaries and grouping various codes into selected codes. In fact, the researcher starts his code analysis with this topic, "The influence of creativity on students' entrepreneurial intention with a focus on entrepreneurship education," and takes into account how many codes might be merged to produce an overarching theme. At this point, duplicate codes, unrelated or incomplete codes, and both are discarded in order to obtain a large number of selective or index codes. Some of the investigated ideas regarding "the impact of creativity on students' entrepreneurial intention with a focus on entrepreneurship education" were prominently positioned within a theme in work completed.

Stage 4: Revision of themes: The creation and revision of a collection of themes pertaining to "the effect of creativity on the entrepreneurial intention of students with an emphasis on entrepreneurship education" mark the start of the fourth stage of this question. Two steps of examining, enhancing, and developing sub-themes are included in this stage. A review at the level of coded summaries is part of the first stage. The validity of the sub-themes in connection to the data set is taken into account in the second stage.

Table 2: The main and sub-themes of the effect of creativity on students' entrepreneurial intention with an emphasis on entrepreneurship education

No	Sub-themes	Main theme
1	Ability to generate ideas	Creativity
2	Gaining experience	
3	Acquiring knowledge	

Stage 5: defining and naming the main themes (main dimensions): When the topics are sufficiently represented, the fifth stage starts. At this point, the researcher evaluates the key issues he specified for study, including "the effect of creativity on students' entrepreneurial purpose with a focus on entrepreneurship education." The information contained therein is then examined using methodologies, theoretical underpinnings, and other subjects. The nature of what a theme is discussing and the area of the data each main theme addresses are both established through definition and review. The concept of "the influence of creativity on the entrepreneurial intention of students with an emphasis on entrepreneurship education" will be defined in this research as having three components by using the findings of semi-structured interviews during the coding stage as well as being inspired by the theoretical and empirical literature of the topic. It may be derived by analyzing qualitative data and includes the following: 1. The capacity for idea generation. 2. gaining experience. 3. Acquiring knowledge.

2. With a focus on entrepreneurship education, how does innovation impact students' intentions to pursue entrepreneurship?

Similar to the earlier stages, the initial coding was completed in this section, and the stages of finishing the comments were implemented. Afterward, the table of sub-themes was introduced, as shown in Table 3.

Table 3: Table of sub-themes "The effect of innovation on students' entrepreneurial intention with an emphasis on entrepreneurship education"

No	Initial codes	Sub-themes	Scholars
1	<ol style="list-style-type: none"> 1. Embracing new technology 2. Development of modern technology 3. Take note of emerging technology 4. Virtual and remote enterprises have grown significantly with the development of technology, the introduction of computers, and the growth of the Internet. 5. Current technology 6. Give instances and models of successful technical innovation by overseas enterprises and companies. 7. The achievement of creativity and innovation is the production of knowledge and technology. 	Embracing and developing new technologies	M1, M2, M3, M4, M5, M6, M9

2	<ol style="list-style-type: none"> 1. The capacity of businesspeople and other organizations to develop fresh, new items and workforces is referred to as innovation. 2. The majority of students and graduates lack the necessary financial foundation to start a business, factory, etc. 3. Changing the workforce 4. recognizing the requirements of younger generations 5. They outperformed rivals by drawing a sizable viewership. 6. Experiences, quotes, viewpoints, and observations made by entrepreneurs. 7. Students and graduates from universities frequently possess knowledge, information, creativity, and a creative mind. 8. It is the process of establishing the context and a foundation among people in order to foster cultural creativity. 	Innovative manpower	M1, M2, M3, M4, M5, M6, M7, M8, M9, M10
3	<ol style="list-style-type: none"> 1. raising output levels in the market 2. Monopoly enterprises 3. They also hold the market monopoly by improving the quality of the products while meeting client demands. 4. The market's pulse is in the hands of companies and businesses thanks to innovation in product manufacturing. 5. The innovation of lowering the cost of manufacturing is what has allowed corporations and enterprises to have a pulse on the market. 6. selling and marketing various things 7. Give instances and models of successful technical innovation by international enterprises and companies. 8. analysis of the state of the market 9. Situation analysis for Coney 10. We will decline if we don't have a fresh product to provide. 	Market knowledge and analysis	M1, M2, M4, M5, M6, M7, M8, M9
4	<ol style="list-style-type: none"> 1. Increasing output in the market's competitive environment 2. Employing creative individuals is essential to the survival and success of many enterprises and businesses in today's cutthroat economy. 3. Tips for marketing in cutthroat parallel marketplaces 4. Considering emerging technology in marketplaces that are competitive 5. In areas with intense competition, starting a firm sometimes demands enormous resources. 6. One of the requirements for the success and survival of firms in cutthroat marketplaces is innovation. 7. Successful firms and organizations frequently set themselves apart from competing ones via innovation and creativity. 8. They outperformed rivals by drawing a sizable viewership. 9. Including opponents 10. In a market where there is competition, we will decrease if we do not have a novel product to provide. 	Competitiveness	M1, M2, M3, M4, M5, M6, M7, M8, M9

Stage 4: Themes revision: With an emphasis on entrepreneurship education, the researcher prepares a collection of topics connected to "the influence of innovation on the entrepreneurial intention of students" and reviews them to start the fourth stage of this question. Two steps of examining, enhancing, and developing sub-themes are included in this stage. A review at the level of coded summaries is part of the first stage. The validity of the sub-themes in connection to the data set is taken into account in the second stage.

Table 4: The main and sub-themes of the impact of innovation on students' entrepreneurial intention with an emphasis on entrepreneurship education

No	Sub-themes	Main theme
1	Attraction and development of new technologies	Innovation
2	Innovative manpower	
3	Market knowledge and analysis	
4	Competitiveness	

Stage 5: defining and naming the main themes: When the topics are sufficiently represented, the fifth stage starts. At this point, the researcher revisits the key themes he initially presented for analysis, specifically "The effect of innovation on students' entrepreneurial intention with an emphasis on entrepreneurship education," and the data contained within them with the aid of theoretical underpinnings, methodologies, and other topics. The analysis determines the nature of what each main theme is discussing and which aspects of the data each main theme covers by defining and reviewing the data. The concept of "the impact of innovation on the entrepreneurial intention of students with an emphasis on entrepreneurship education" is defined in this research as having three components using the findings from semi-structured interviews during the coding stage as well as inspiration from the theoretical and empirical literature on the topic. It may be discovered through the examination of qualitative data, and it is 1. The adoption and advancement of new technology. 2. Talented workers. 3. Understanding and researching the market. 4. Competitiveness.

3. How does self-esteem, with a focus on entrepreneurship education, affect students' desire to start their own businesses?

As in the other two sections, interviews were conducted in this section. After the interviews were coded, themes were identified, as shown in Table 5.

Table 5: Table of sub-themes of the effect of self-esteem on students' entrepreneurial intention with emphasis on entrepreneurship education

No	Initial codes	Sub-themes	Scholars
1	<ol style="list-style-type: none"> 1. Creation of motivating factors 2. Self-worth and optimistic thinking 3. Students should allow the information to enter their thoughts. 4. Students shouldn't have unrealistic expectations of themselves. 5. Increasing self-motivation 6. Creativity Sacrifice 7. Will 8. Students who possess a positive sense of self-worth and self-belief are capable of making the best choices. 9. Many pupils, in my opinion, possess a great deal of imagination, skill, and intelligence. 10. Objectives and concepts of the mind 11. Never celebrate a win or a loss too soon. 12. Have confidence in your skills. 13. The attitude of overcoming obstacles 	Self-Knowledge	M1, M2, M3, M4, M5, M6, M7, M8, M9, M10

2	<ol style="list-style-type: none"> 1. A person may overcome significant obstacles with a spirit of self-belief and self-esteem. 2. Self-esteem 3. Students should allow the information to enter their thoughts. 4. Students shouldn't hold themselves to unrealistic standards. 5. Students should begin their activities by boosting their internal drive and learning entrepreneurship-related skills, as well as, of course, utilizing the advice and recommendations of successful individuals in various business industries. 6. Fighting attitude 7. Increase your self-esteem 8. Strong levels of drive and self-assurance 9. Passion and confidence 10. Students who have received psychological and personality training often outperform the general populace in a variety of endeavors, including entrepreneurship. 11. Students who believe in themselves and are self-assured may make wise selections in a variety of enterprises. 12. Prosperity, ambition, and self-assured 13. Especially at the entrepreneur stage of student activities, the spirit of self-confidence cannot be successful. 14. Self-esteem 15. Improve your reputation 	Self-esteem	M1, M2, M3, M4, M5, M6, M7, M8, M9, M10
3	<ol style="list-style-type: none"> 1. Creation of motivating factors 2. Self-confidence and an optimistic outlook return 3. Self-esteem 4. Students should begin their activities by boosting their internal drive and learning entrepreneurship-related skills, as well as, of course, utilizing the advice and recommendations of successful individuals in various business industries. 5. Positive attitude 6. Cognitively preparing them for more crucial work 7. Strong levels of drive and self-assurance 8. Gaining knowledge in a variety of entrepreneurial courses 9. Increasing self-motivation 10. Internal motives and ambitions of an individual in selecting the desired course and objective 11. Sacrifice 12. Flexibility 13. Passion and confidence 14. Students who have received psychological and personality training often outperform the general populace in a variety of endeavors, including entrepreneurship. 15. Students who believe in themselves and are self-assured may make wise selections in a variety of enterprises. 16. The development of psychological traits 17. The development of talents 18. Development of psychological and individual traits 19. A fearless state 20. The individual's mental tension and anxiety 21. Entrepreneur's emotional and mental state 22. Work on and reiterate your credibility 23. Automate your shortcomings, concerns, and anxieties 24. People who don't have faith in their own abilities might not be willing to take risks necessary to grow their company. 	Improving psychological characteristics	M1, M2, M4, M5, M6, M7, M8, M9

Stage 4: Theme revision: The researcher’s creation and assessment of a collection of topics relating to the impact of student’s self-esteem on their entrepreneurial ambition marks the start of the fourth stage of this inquiry. Two steps of examining, enhancing, and developing sub-themes are included in this stage. A review at the level of coded summaries is part of the first stage. The validity of the sub-themes in connection to the data set is taken into account in the second stage.

Table 6: The main and sub-themes of the effect of self-esteem on students’ entrepreneurial intention with an emphasis on entrepreneurship education

No	Sub-themes	Main theme
1	Self-knowledge	Self-esteem
2	Self-esteem	
3	Improving psychological traits	

Stage 5: defining and naming the main themes: When the topics are sufficiently represented, the fifth stage starts. At this point, the researcher revisits the key themes he initially presented for analysis, specifically "the effect of self-esteem on students’ entrepreneurial intention with an emphasis on entrepreneurship education." Then, using theoretical underpinnings, methodologies, and other subjects, it analyzes the data contained therein. The nature of what a theme discusses and the area of the data that each main theme addresses are both established through definition and review. The definition of "the effect of self-esteem on the entrepreneurial intention of students with an emphasis on entrepreneurship education" is presented and includes three components that were obtained from the analysis of qualitative data, and they are as follows: 1. Self-awareness; 2. Self-assurance; and 3. Improving psychological traits.

4. How does risk-taking affect students’ desire to start their own businesses when entrepreneurship education is a priority?

The researcher’s creation and assessment of a collection of topics about the influence of taking risks on students’ entrepreneurial purpose mark the start of the fourth stage of this inquiry. Two steps of examining, enhancing, and developing sub-themes are included in this stage. A review at the level of coded summaries is part of the first stage. The validity of the sub-themes in connection to the data set is taken into account in the second stage.

Table 7: The main and sub-themes of the effect of self-esteem on students’ entrepreneurial intention with an emphasis on entrepreneurship education

No	Sub-themes	Main theme
1	uncertainty conditions	Risk-taking
2	Risk-taking strategic measures	
3	Financial support	

Stage 5: defining and naming the main themes: When the topics are sufficiently represented, the fifth stage starts. At this point, the researcher reevaluates the key topics he identified for study, specifically "the influence of risk-taking on students’ entrepreneurial ambition with an emphasis on entrepreneurship education." Then, using theoretical underpinnings, techniques, and other subjects, it evaluates the data contained inside. The nature of what a topic is talking about and the area of the data each primary theme addresses are both established via definition and revision. The concept of "the effect of risk-taking on the entrepreneurial intention of students with an emphasis on entrepreneurship education" will be defined in this research as having three components by using the findings of semi-structured interviews during the coding stage as well as being inspired by the theoretical and empirical literature of the topic. It may be derived by analyzing qualitative data and includes the following: 1. Uncertainty circumstances 2. Taking a calculated risk. 3. Financial assistance.

5. With a focus on entrepreneurship education, how effective is perceived behavioral control on students’ entrepreneurial intentions?

Themes revision: With an emphasis on entrepreneurship education, the researcher develops a collection of themes connected to the impact of perceived behavioral control on students’ entrepreneurial ambition and then reviews them to start the fourth step of this topic. Two steps of examining, enhancing, and developing sub-themes are included in this stage. A review at the level of coded summaries is part of the first stage. The validity of the sub-themes in connection to the data set is taken into account in the second stage.

Table 8: Main and sub-themes of the effect of perceived behavior control on students' entrepreneurial intention with an emphasis on entrepreneurship education

No	Sub-themes	Main theme
1	Perceived internal behavior control	Perceived behavioral control
4	Perceived external behavior control	

Stage 5: defining and naming the main themes (main dimensions): The identified codes were then coded using semi-structured interview data as well as inspiration from the relevant theoretical and empirical literature. The following three elements, which were discovered through the analysis of qualitative data, can be used to define "the effect of perceived behavior control on students' entrepreneurial intention with an emphasis on entrepreneurship education" in this study: 1. Perceived control over internal behavior. 2. Regulating how external behavior is viewed.

Stage 6: Report preparation: A collection of themes that were clearly defined was acquired at this stage, and they are displayed below in the form of a table and a causal diagram. The final analysis and drafting of the design report for the entrepreneurial attitude model that is effective on the students' entrepreneurial intention, with a focus on entrepreneurship education, are included in this stage.

Table 9: Extracted components and indicators of entrepreneurial attitude model effective on students' entrepreneurial intention with emphasis on entrepreneurship education

No	Components	Indices
1	Creativity	Ideation ability (c1)
		Gaining experience (c2)
		Gaining experience (c3)
2	Innovation	Attraction and development of new technologies (c4)
		Innovative manpower (c5)
		market recognition and analysis (c6)
		Competitiveness (c7)
3	Self-esteem	self-knowledge (c8)
		self-confidence (c9)
		Improving psychological characteristics (c10)
4	Risk-taking	conditions of uncertainty (c11)
		Strategic measures of risk-taking (c12)
		market recognition and analysis (c6)
		financial support (c13)
5	Perceived behavior control	Perceived internal behavioral control (c14)
		Perceived external behavior control (c15)

Finally, a conceptual model of an entrepreneurial attitude that positively influences students' entrepreneurial intention was developed in accordance with the evaluation and analysis of the theme shown in Figure 2.

The leveling of items is covered in this section in accordance with the conceptual model that was designed (Tab. 10). The initial self-interaction matrix is thus created based on the compilation of opinions from experts in the field of analyzing various aspects of entrepreneurship.

The proximity matrix is then created using Table 10 and the proposed model, which is detailed in Table 11:

$$v = 1 \quad A = 0 \quad X = 1 \quad O = 0 \tag{4.1}$$

Formation of revised achievement matrix (final achievement matrix)

Because of the multiplicative property, the element I must lead to element k if element I lead to element j and element j leads to element k in the same way. We use the matrix symbol one if this connection cannot be made. The updated accomplishment matrix, also known as the final achievement matrix, is the stage that is depicted in Table 12.

Table 11: Proximity matrix

Factors	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
C1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
C2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
C3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C4	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1
C5	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0
C6	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
C7	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
C8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C10	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
C11	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1
C12	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1
C13	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1
C14	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0
C15	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0

Table 12: Revised achievement matrix

Factors	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
C1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
C2	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
C3	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0
C4	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1
C5	1	1	1	0	1	1	1	1	1	1	0	0	0	1	0
C6	0	1	0	0	0	1	0	1	1	1	0	0	0	0	0
C7	1	0	1	0	0	0	1	1	1	0	0	0	0	0	0
C8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
C9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
C10	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0
C11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
C12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
C13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
C14	1	1	1	0	1	1	1	1	1	1	0	0	0	1	0
C15	1	1	1	0	0	1	1	1	1	1	0	0	0	0	1

4.1 Determining the level of indicators

In this stage, we construct two reachable sets (output) and the prior set (input), assess their commonality, and use the final attainment matrix to determine the degree of criterion. In this fashion, the predecessor set is a set in which the number of criteria in the columns appears as one, and the attainable set is a set in which the number of criteria in the row appears as one in the ultimate attainment matrix. The following column of the table (subscription) will be finished by acquiring the subscription for these two sets. The first level of priority will be chosen on the first line, where the share of two sets equals the accessible set. Once the level is established, the criteria or criteria whose level has been established are removed from the table, and the process is repeated until all of the remaining variables are established. Following the establishment of the final level, the final shape of the variables is drawn using the established levels as detailed in tables 13 to 19.

$$\text{if } P(S_i) \cap Q(S_i) = P(S_i) \quad \text{level 1} \tag{4.2}$$

Table 13: The first level of factors

	P(Si)	Q(Si)	T(Si)
C1	1,8,9	1,3,4,5,7,11-15	1

C2	2,8,9	2,4,5,6,10-15	2
C3	1,3,8,9	3,4,5,7,11-15	3
C4	1-10,14	4,11,12,13	4
C5	1,2,3,5-10,14	4,5,11,12,13,14	5,14
C6	2,6,8,9,10	4,5,6,11-15	6
C7	1,3,7,8,9	4,5,7,11-15	7
C8	8	1-8,10-15	8
C9	9	1-7,9-15	9
C10	2,8,9,10	4,5,6,10-15	10
C11	1-15	11,12,13	11,12,13
C12	1-15	11,12,13	11,12,13
C13	1-15	11,12,13	11,12,13
C14	1,2,3,5-10,14	4,5,11,12,13,14	5,14
C15	1,2,3,6-10,15	4,11,12,13,15	15

C8 and C9 are positioned on the first level, as evidenced by table 13.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 2} \tag{4.3}$$

Table 14: The second level of factors

	P(Si)	Q(Si)	T(Si)
C1	1	1,3,4,5,7,11-15	1
C2	2	2,4,5,6,10-15	2
C3	1,3	3,4,5,7,11-15	3
C4	1-7,10,14-15	4,11,12,13	4,17
C5	1,2,3,5,6,7,10,14	4,5,11,12,13,14	5,14
C6	2,6,10	4,5,6,11-15	6
C7	1,3,7	4,5,7,11-15	7
C10	2,10	4,5,6,10-15	10
C11	1-7,10-15	11,12,13	11,12,13,18,20
C12	1-7,10-15	11,12,13	11,12,13,18,20
C13	1-7,10-15	11,12,13	11,12,13,18,20
C14	1,2,3,5,6,7,10,14	4,5,11,12,13,14	5,14
C15	1,2,3,6,7,10,15	4,11,12,13,15	15

It can be seen from Table 14 that factors C1 and C2 were assigned to the second level.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 3} \tag{4.4}$$

Table 15: The third level of factors

	P(Si)	Q(Si)	T(Si)
C3	3	3,4,5,7,11-15	3
C4	3-7,10,14,15	4,11,12,13	4
C5	3,5,6,7,10,14	4,5,11,12,13,14	5,14
C6	6,10	4,5,6,11-15	6
C7	3,7	4,5,7,11-15	7
C10	10	4,5,6,10-15	10
C11	3-7,10-15	11,12,13	11,12,13
C12	3-7,10-15	11,12,13	11,12,13
C13	3-7,10-15	11,12,13	11,12,13
C14	3,5,6,7,10,14	4,5,11,12,13,14	5,14
C15	3,6,7,10,15	4,11,12,13,15	15

The third level of the components C3 and C10 was demonstrated using Table 15.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 4} \tag{4.5}$$

Table 16: The first level of factors

	P(Si)	Q(Si)	T(Si)
C4	4-7,14,15	4,11,12,13	4
C5	5,6,7,14	4,5,11,12,13,14	5,14
C6	6	4,5,6,11-15	6
C7	7	4,5,7,11-15	7
C11	4-7,11-15	11,12,13	11,12,13
C12	4-7,11-15	11,12,13	11,12,13
C13	4-7,11-15	11,12,13	11,12,13
C14	5,6,7,14	4,5,11,12,13,14	5,14
C15	6,7,15	4,11,12,13,15	15

Table 16 provides evidence that the C6 and C7 factors are at the fourth level.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 5} \tag{4.6}$$

Table 17: The fifth level of factors

	P(Si)	Q(Si)	T(Si)
C4	4,5,14,15	4,11,12,13	4
C5	5,14	4,5,11,12,13,14	5,14
C11	4,5,11-15	11,12,13	11,12,13
C12	4,5,11-15	11,12,13	11,12,13
C13	4,5,11-15	11,12,13	11,12,13
C14	5,14	4,5,11,12,13,14	5,14
C15	15	4,11,12,13,15	15

C5, C14, and C15 factors are at the fifth level, according to Table 17.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 6} \tag{4.7}$$

Table 18: The sixth level of factors

	P(Si)	Q(Si)	T(Si)
C4	4	4,11,12,13	4
C11	4,11-13	11,12,13	11,12,13
C12	4,11-13	11,12,13	11,12,13
C13	4,11-13	11,12,13	11,12,13

The C4 factor is at the sixth level, as demonstrated by Table 18.

$$\text{if } P(Si) \cap Q(Si) = P(Si) \quad \text{level 7} \tag{4.8}$$

Table 19: Seventh level of factors

	P(Si)	Q(Si)	T(Si)
C11	11,12,13	11,12,13	11,12,13
C12	11,12,13	11,12,13	11,12,13
C13	11,12,13	11,12,13	11,12,13

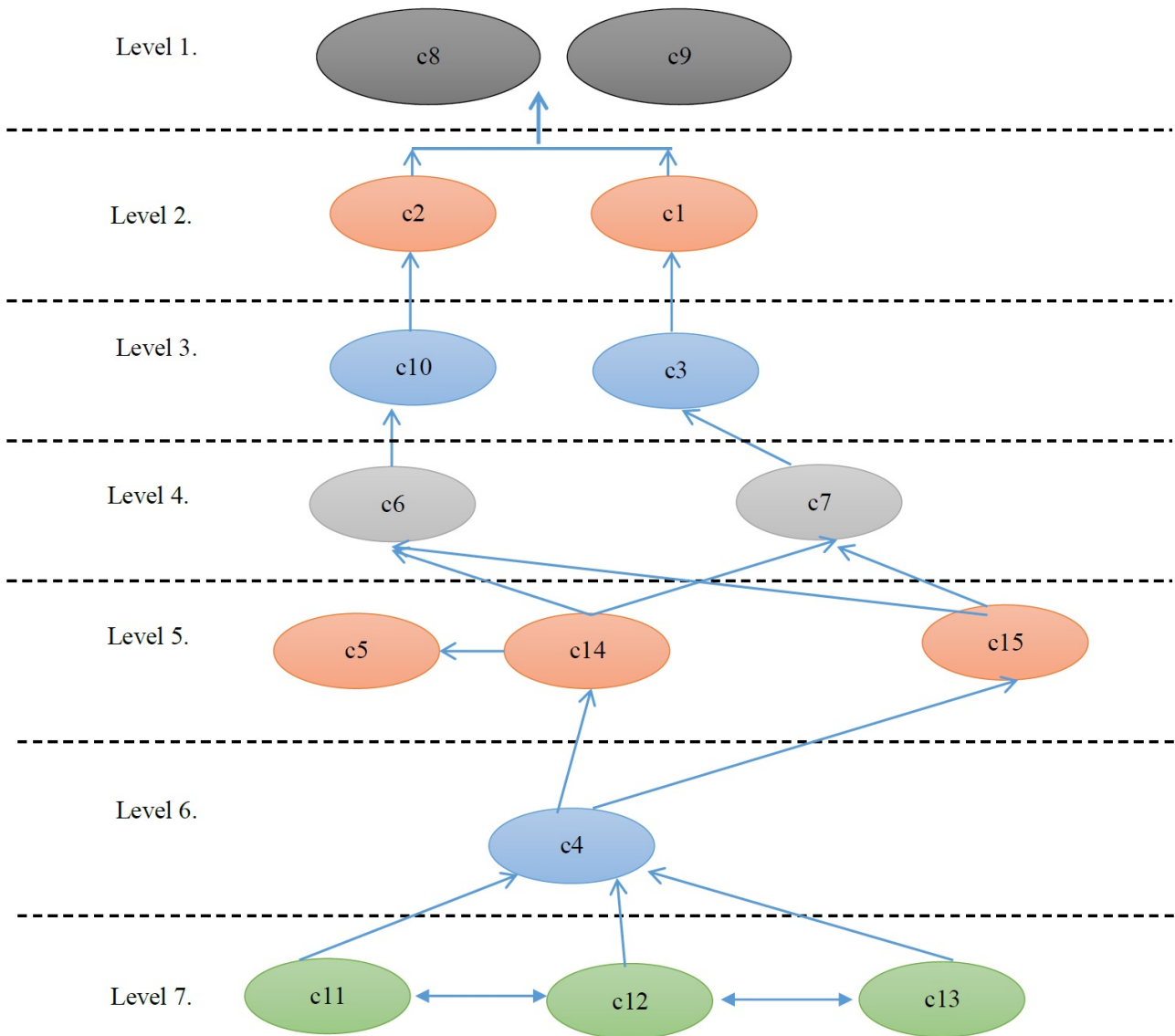


Figure 3: ISM network of factors of the presented conceptual model

Factors C11, C12, and C13 are at the seventh level, according to Table 19.

The capacity to produce ideas and gain experience is at the second level of the entrepreneurial mindset, while self-knowledge and self-confidence are at the first level, according to the structural analysis of the 15 main components discovered in the entrepreneurship issue. In addition, the third level of the model that was presented puts knowledge acquisition and improving psychological traits; the fourth level competitiveness, market recognition and analysis; the fifth level human resources, innovation, and control of internal and external behavior; the sixth level adoption and development of new technology, and the seventh level other components. Therefore, it has been demonstrated that the internal components, as well as self-knowledge and self-belief, have particular effects on entrepreneurial attitudes dependent on stratification.

5 Discussion, conclusion, and future suggestions

People’s entrepreneurial attitudes change as a result of entrepreneurship training, and this is a point of support for the idea that through this training, people’s entrepreneurial attitudes can be strengthened and turn into entrepreneurial behavior. It is held that attitudes and beliefs can be changed through education and learning, even if they were formed as a result of social and familial influences. Given that entrepreneurship has a significant impact on society and people’s

lives, entrepreneurship education is crucial, particularly for the educated class, in order to inspire them to start their own businesses. Educational institutions, including universities, are required to give this issue attention and make the necessary preparations in order to instill an entrepreneurial mindset in students. Therefore, in this study, based on the theme analysis, it was demonstrated what the key factors were in students' entrepreneurial attitudes, and a conceptual model in this area was offered. It is advised to assess and statistically examine the supplied model using the structural equation modeling technique in light of the research's findings.

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