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Designing an Entrepreneurial School Model in Iranian Education: Case Study of Mazandaran Province

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Abstract:*The act of the fundamental transformation of education and the horizons of 1404prospect has changed policy making and designing of programs in the field of formal and general education so that it can raise the talents of adolescents and youth in all fields. The school in the act of fundamental transformation of education as the focal point of the action and the objective effect of the formal and general education system is a dynamic, lively and purposeful adaptation of a system that can provide the necessary competencies for educators to continuously understand the situation. Today, scholars, practitioners and educational researchers are seeking to objectify the concept of entrepreneurship in schools. Therefore, the present study aimed at designing an entrepreneurial school pattern in Iranian education with a case study in Mazandaran province. The strategy used in this research is a hybrid strategy of sequential exploration that initially compiled and analyzed qualitative data, followed by quantitative data collection and analysis. In this way, thematic analysis, Delphi technique and structural equation modeling strategies are used. Data collection tools are interviews and questionnaires.*

The factors 'identification and the entrepreneurial school pattern designing were done by referring to previous researches and library studies and analyzing the texts from interviews with 20 faculty members of the Educational Sciences University of Farhangian, students and school administrators. Then, using Delphi technique (20 samples) and structural equation modeling (210 samples), the designed model was validated. The method of sampling in the stage of content analysis and qualitative validation is objective and at the stage of confirmatory factor analysis is cluster-randomized. The data were analyzed in three stages using NVIVO, SPSS and LISREL software. Findings of the research indicate that two groups of internal and external factors and 3 dimensions of individual, organizational and environmental abilities and 16 components affect the formation of an entrepreneurial school. The results of the hypothesis test also show a significant relationship between the components and dimensions of the research. Fitnessindicators also confirm the fitting of the final model.

I. Introduction

The term Entrepreneurship comes from the French word Entreprendre meaning "Commitment" and it is one of the words that there is no single definition for it, and from the beginning of itsplanning in the scientific societies, different definitions have been presented for it from different perspectives. Encounters of experts in the field of entrepreneurship are the same as the blind people who are faced with an animal, and each one describes it in proportion to the part of the animal being touched. Therefore, the full understanding of the subject of entrepreneurship requires an interdisciplinary view because entrepreneurship is defined in terms of its nature and in terms of the attention of researchers from different fields of economic, psychological, sociological, and historical issues. In today's world, the struggle for industrial, scientific and technical superiority has begun, and developed countries, prospective organizations and institutions have been looking for new ways to face these widespread developments. The pace of change and transformation has been overlooked in such a way that entrepreneurship, creativity, and innovation are accepted as the main constituents of the important factors in the survival of societies (Kalanthirian et al, 2012). In a study by Gurol&Atsan in 2006 entitled "Entrepreneurship Characteristics among University Students," they found that students who have an entrepreneurial attitude are superior in six characteristics than students who don't have this attitude (motivation for progress, internal

control, innovation, self-confidence, tolerance of ambiguity and tendency to risk taking). Also Frank and his colleagues (2005) in a study entitled "Entrepreneurship Training in Austrian High Schools" concluded that many factors have contributed to the growth of entrepreneurial personality traits that the school has an undeniable role in the preparation of these factors. Entrepreneurship was considered as a skill that should be considered at all levels of education from elementary school to university. The purpose of this study was to examine the factors influencing entrepreneurial attitudes and attitudes of high school students in Vienna in Austria. These factors included school facilities and technology, curriculum and non-syllabus, teachers and managers, environment and process. Hejazi et al. (1394) conducted a research entitled "Identifying the Factors Influencing the Development Plans of Entrepreneurship Education in Iran's Higher Education System" by a descriptive-survey method. They concluded that the policies and the field of education affectson entrepreneurship training development plans there is a direct and positive relationship between the educational components of policy making, the implementation and evaluation of policy, content and assessment of courses in entrepreneurship training development plans in Iran's higher education system.Sabzianpour et al (2015) in an article entitled "Entrepreneurship Education and the Entrepreneurial School, anew approach to the development of children", reported that in order to move from traditional schools to entrepreneurial schools, an appropriate environment should be provided to change theattitudes and values and to cultivate and growth of future entrepreneurs who are students of today. In this regard, identification of teachers and students in acquiring entrepreneurial skills and traits, and especially having creative thinking are the initial activities, also they considered the following actions effective: culture setting, students familiarity with successful entrepreneurs, introduction and recognition of the entrepreneurial school, teaching entrepreneurial lessons, promoting students' attitude toward the value of the position of entrepreneurs. Noh Ebrahim et al (2008) in a study entitled "Study of entrepreneurship indices among the students of the last three years of the second grade of the theoretical, technical, and work & knowledge branches" concluded that between entrepreneurial capabilities (motivation for progress, independence, tendency to Creativity, risk taking, internal control, tolerance of ambiguity), there is a significant difference between the three groups at the level of 0.05**.** The rational and balanced development of human beings in the rational, emotional, social and physical aspects is a heavy responsibility of education (Mousavi, 2011, quoted by Behrangi and Tabatabai, 2009). Therefore, in order to recognize and secure future needs, education leaders and policymakers will make profound changes in their missions and goals and run schools in a completely new and different way from the past (TaqiPourzahir and Hassan Moradi, 2006). Education, along with an entrepreneurial process that starts from the beginning of a child, can seriously and reasonably provide the necessary skills for entrepreneurship in elementary and secondary education levels for students based on their age and personality (Mousavi, 2011 quoted by Behrangi and Tabatabai, 2009). Today, entrepreneurship is considered in terms of the nature and structure of educational systems. With this approach, entrepreneurship in education can be regarded as a regular and continuous process that, in on the one hand, leads to the effective identification and exploitation of all internal and external resources of the educational system, and, on the other hand, creates opportunities with a new approach to teaching and learning. Since entrepreneurial traits are acquired, not inherited genetically, education needs to be provided by planning and organizing, creating the grounds for the development of students' mental attributes to create entrepreneurial spirit and develop these characteristics. In the current education system, graduates, instead of entering the business after completing the course, they must learn the skills of the world of work and allocate time when they learn the theories. That's not a wise thing. Because they are unfamiliar with business and life skills from a childhood. So it takes a long time to sync up with this space. Therefore, education and the creation of entrepreneurship-based schools can be the beginning of the presence of business space and having life skills in schools and then in universities, because based on the fundamental transformation document and 1404 vision, changes in policy making and program design have taken place seeks to bring up individuals with the comprehensivedevelopment of their talents, which one of the most important development is owning the social and economic skills in real life. In our country, starting with the third five-year plan from 2000, the comprehensive plan of the entrepreneurship development began at the level of several ministries, including the Ministry of Science, Research and Technology. In education, the issue of entrepreneurship is realized in the form of a skill-oriented design for all courses, especially high school students, is the central goal of the fundamental transformation document, which by diversifying into learning environments and effective interaction of schools with entrepreneurship centers and the establishment of a creativity and innovation system in schools. (Isan, 2015).The issue of entrepreneurship in schools has so far focused on the promotion of this concept, and the creation of an entrepreneurial school in both the hardware and software sector requires the identification of effective components and the presentation of a precise conceptual framework which the designing of an entrepreneurial school model is possible through comparative studies and the accomplishment of applied and developmentalresearch and studying the theories and backgrounds of inside and outside the country. Now that the idea of creating an entrepreneurial school in Mazandaran province has been raised, there are some questions in this regard, such as: how are these kind of schools and what are their differences with

present schools? What are the views and ideas in this area? What are the conditions for success in this type of school? What are the components that affect the design of entrepreneurial school model? What are the executive requirements and the steps for creating entrepreneurial schools? In general, entrepreneurship has been taken into account in a variety of dimensions, and somemodels were presented by scholars such as Shapiro (1975), Bigrio (1994), Frye (1993), Gartner (1985), Corautko (1994), Niawali and Fogell (1994) Stevenson (1989), Chel and Hewers (1988) and Timmons (1985) are presented (AhmadpourDaryani, 2008: 250-237). But so far entrepreneurship has not been addressed as a system process. Therefore, the researcher in this research is trying to design a model for creating an entrepreneurial school based on the entrepreneurial process model and creativity management ideas, entrepreneurial organization and system process approach, in terms of individual, organizational and environmental abilities in the education of Mazandaran province through studying theoretical fundamentals of research and studies performed in contrast to the researchers 'models that only address the characteristics and factors in the field of corporate entrepreneurship dimension.

II. Research questions

1. What are the main and subcomponents of the entrepreneurial school in Iranian education?

2. What is the appropriate model of entrepreneurial school in Iranian education?

Research method population and statistical sample, validity and reliability

In this research, using the information and experiences of entrepreneurship experts, the concepts, components and dimensions of the entrepreneurial school was specified, the conceptual model was designed and the theory related to the subject were developed. In the research process, using the concepts identified, the questionnaire was adjusted and its validity were measured. Therefore, using the combined method, firstly by the qualitative method of inductive based "grounded theory", a new and native model was designed. Content analysis method, in the axial coding step was used for open coding, the expert test was used to classify factors and discover relationships between dimensions and components, and multi voting method was used for selective coding stage. Then, the designed model was validated by a quantitative descriptive survey. The strategy used in this research is a hybrid strategy of sequential exploration. Because qualitative data are first collected and then were changed to quantity and analyzed. In this research, in the first phase the factors of the creation of the entrepreneurial school based on the views of the scholars of the educational sciences was extracted by the technique of thematic analysis. Then, based on the adaptation of the views of experts and professionals participating in the research, with the theoretical foundations in this field, the independent, intermediary and Affiliated effective factors in creating an entrepreneurial school were determined, and a structural model of the entrepreneurial school was designed and tested in the form of a hypothetical model.

The data gathering instrument in this research were interview and questionnaire. The factors of the entrepreneurial school structure with an emphasis on the organizational model were Identified using the thematic analysis technique and the Delphi technique was used for qualitative validation and structural equation model was used for quantitative validation.

The statistical population of the qualitative section (thematic analysis section) includes all texts of interviews with educational experts. Sampling was done purposefully and unpredictably. Accordingly, the selection of experts aimed at obtaining the most information about the phenomenon has been studied and the increase in sample size has continued until the achievement of theoretical adequacy and saturation. Also, to determine the size of the statistical sample, factors such as the availability of individuals, the time needed and the cost of data collection were considered. Accordingly, to maintain the validity of the research and considering the loss of participants during the study, about 30 people were identified. In the theme analysis section, the data collection was done through 20 specialized interviews by telephone and e-mail and reached theoretical saturation. The statistical population in the field of implementation of Delphi technique was formed by the experts of the educational sciences, especially the professors of the FarhangianUniversity and the administrators and students of technical and vocational schools. To validate the qualitative section using the Delphi method, the opinions of the professors of Farhangian University and leading experts and practitioners in the field of Educational Sciences were collected. Then, with emphasis on organizational entrepreneurship, the variables of research (concepts, components and dimensions) were identified and the conceptual model of the entrepreneurial school was designed. 88 Concepts extracted were in the dimensions of the organization - individual abilities (psychological, motivational, attitudinal characteristics and demographic, management style and skill), organizational dimension (new ways of reward, support, delegation, time opportunity, curriculum system, Strategic orientation, entrepreneurship culture, entrepreneurship education, space and equipment) and external factors (government policy, social, economic, cultural and financial and non-financial support). Firstly, through

interviewing, effective factors were identified in creating entrepreneurship schools, and then the questionnaire was sent in person and in the e-mail. So the questionnaire with 88 concepts for distribution of the first stage was set up. Twenty-two questionnaires were returned from the questionnaires and 20 questionnaires were identified usable. In order to maintain the value and credibility of the study, the responsiveness of the experts in each Delphi round should not be less than 70%, in qualitative validation,5 concepts with an average of less than 4 were deleted because of disagreement among the panel members and the second stage questionnaire was prepared with 83 items. Thus, in the second and third rounds, this number has not changed. The statistical population of the quantitative section, including all the managers and teachers of Mazandaran province, in the academic year of 2016-2017, has been the total number of trainees in the province of 1990. The analytic unit was used in a quantitative section was the manager or teacher and a multi-stage cluster sampling method was used. In order to perform structural modeling, considering principals and teachers 'statistical population, 210 people were estimated as sample size. For sampling, the province first divided into three geographical regions: east, west, and center, and three cities was selected randomly from each district, and in total, 18 schools were studied. Determining the importance of the factors were done in the range form of the priorities "very low = 1", "low = 2", "average = 3", "high = 4", "very high = 5", and point 4 as the point of admission (High and very high).

The validity of the questionnaire was also evaluated by content, face, and construct validity. Content validity actually refers to the extent to which the content of the questions and their appearance are similar to the subject that is being prepared to measure it. The judgments of the experts were used to determine the content and face validity (Saif, 2008).

To determine the reliability of the data gathering instrument, Cronbach's alpha method was used in this research. Cronbach's alpha is calculated for each of the components and is shown in the table below. Obviously, the alpha value above 0.7 is shown a good reliability.

Table 1. Cronbach Alpha Reliability Index of Entrepreneur's School Dimensions (Organizing contents)

Indicator /Dimension	Individual Ability(Inter organizational factors)	organizational (Intra-organizational factors)	environment (Extra organizational factors)
Alpha coefficient	0/84	0/90	0/76
Number of Items	20	43	20

Then SPSS19 software was used for Kendall test. Finally, in the Structural Equation section, the model designing was done using the Lisrel 8.5 software.

Research findings

The first research question Study: What are the main and sub components of the Entrepreneurial School in Iranian Education?

Table 2 - Matrix of research variables

Dimensions		components
Intra organizational factors	Personal abilities	Characteristics (psycho-motivational-attitudinal)
		Demographic
		Management style
		Skill (mentally-interpersonal-organizational)
	organizational	New methods of giving reward
		Management support
		Delegation
		Time opportunity
		Curriculum system
		Strategic orientation
		Entrepreneurship culture
		Entrepreneurship education
		Space and equipment

Extra organizational factors(environmental)	government policy
	Socio-economic-cultural conditions
	Financial and non-financial support

The method of analyzing the subject has been used to identify and determination of the factors that influence the creation of an entrepreneur's school. The concepts, components and dimensions affecting the formation and creation of entrepreneurial schools are classified according to table (2) as follows:
(A) Concepts and components agreed upon by the participants regarding individual abilities

In this section, the texts were first categorized and subsequently their proper titles were selected by the researcher. Then they were reviewed in consultation with the experts in the field of entrepreneurship, and finally, with the help of the supervisor, the common consolidation titles and the different titles or contradictory ones were corrected as following, respectively:

• Concepts agreed upon by the participants regarding the feature organizing component (psycho-motivational-attitudinal)
The basic concepts or themes for looking ahead, sense of independence, motivation, commitment and adherence, control, success, creativity and innovation, self-confidence, competitiveness, spirit of invincibility, participatory spirit, risk and riskiness, lack of conservative decision making, determination, determination and courage of identification and component or theme-organizing features (psycho-motivational-attitude)were created.

• Concepts agreed by the participants on the organizing component of demographic

The concepts or subjects of the basic dimensions of the family, the parent's social base, parental education, the beginning of entrepreneurship from the elementary school, the geographical location of the schools, and the component or subject of the demographic organizer were created.
• Concepts agreed upon by the participants regarding the organizing component of the management style in education

To create entrepreneurial schools, you need a variety of guidance, participatory and democratic management to manage different affairs. Due to the concepts and themes of the foundation of these types of management, the component or theme of organizing management style was created.

• Concepts agreed upon by the participants regarding the organizing component of the skills (subjective-interpersonal-organizational)

The basic concepts or themes of the accuracy and focus, the ability to logical thinking, problem solving and self-efficacy, ideation, reinforcement of the questioning spirit, the expression of existence, and management in the relationship creating the component or the theme of organizing mental-interpersonal and organizational skills.

B) identifying the concepts and components agreed upon by the participants in relation to the organizational dimension

• Concepts agreed upon by the participants regarding the organizer component of the new rewards method

The basic concepts or themes of the reward based on performance, additional rewards, promotion of job position based on performance, organizing teachers based on the entrepreneurial performance, and the component or theme of organizing new rewards techniqueswere created.

• Concepts agreed upon by the participants in relation to the organizing component of management support

The basic concepts or themes of the entrepreneurial ideas as a criterion of evaluation, the support of technical and expert teachers, helping to record patent and innovations of entrepreneurs, the use of creative people and consulting services obtained in the interviewees texts is the source of the component or the theme organizer of management support.

• Concepts agreed by the participants on the constituent component of the delegation

Concepts or themes to avoid hierarchical approach, flexibility in implementing guidelines, activating student associations with a career approach, ignoring formal procedures, taking seriously comments and suggestions, making creative decisions, flexibility in planning and budgeting were identified and The component or content of the organizer of the delegation was formed.

• Concepts agreed upon by the participants regarding the time component organizer

Concepts or themes organizing time management, the opportunity to compensate for mistakes and fitting the characteristics of teachers with job requirements from the analysis of interview texts were Identified and extracted and the component or theme of the organizer of the opportunity was formed.

• Concepts agreed upon by the participants regarding the organizer of the curriculum system

Concepts or themes organizing hidden curriculum appropriate to entrepreneurship, the research approach of textbooks, teacher's ability, manager and executive factors, student's ability, entrepreneurial teaching methods, school change perpetrators, appropriate supra programs, educational content, evaluation system and guidance and the appropriate education that is obtained by analyzing the texts of the interviews with the participants in the implementation of the research is the constructor of the component or subject of the curriculum system organizer.

• Organizational component of strategic orientation

From the participants' point of view, paying attention to the outlook, strategies, policies, procedures and strategies, planning, organizational goals, the utilization and understanding of opportunities (not limited resources and control), and organization policies were identified as concepts or core themes and the strategic orientation organizing component or theme was formed as one of the factors influencing the creation of an entrepreneurial school.

• Concepts agreed upon by the participants regarding the space and equipment organizer component

The existence of an entrepreneurial room, resources, technology and educational resources, the structure of technology implementation, and the physical structure of the class and the school have been effective as the concepts or themes of the establishment of an entrepreneurial school, and ultimately as a component of space and equipment in the formation and organization of such schools is important.

• Concepts agreed upon by the participants regarding the organizing component of entrepreneurship culture

The basic concepts or themes of multidisciplinary participation, imposing job opportunities, acceptance of change and challenges, promotion of teamwork and network culture, the growth of entrepreneurial insights, the relationship between school executive practices and entrepreneurial students and the participatory culture of the organization play an important role as factors that influence the creation of an entrepreneurial school by shaping the component or theme of organizing entrepreneurship culture.

• Concepts agreed upon by the participants about the organizer component of entrepreneurship education

The concepts of marketing education, the teaching of negotiation techniques, extensive and continuous training, the training of job skills of employees, education with production as the main themes in the formation of an important entrepreneurial school, and the creation of a component of entrepreneurship education are significant .

C) Identifying the concepts and components agreed upon by the participants regarding the extra organizational dimension (environment)

•Concepts agreed upon by the participants regarding the organizing component of the government policy

Theconcepts of the rules governing entrepreneurial activities (recruitment, employment, etc.), the way to connect with growth centers and the science and technology park, reducing administrative formalities for obtaining licenses, credits and budget, and job security that can be forecasted and considered in government policies are, respectively, the basic and organizing themes in creating an important and influential entrepreneurial school.

• Concepts agreed upon by the participants regarding the organizing component of socioeconomic-cultural conditions

Concepts such as more schools connections with business owners, continuous communication with entrepreneurs graduates, marketing and business of student products, strengthening of professional and vocational centers related to education and its rehabilitation, business start-ups,adaptive studies with successful countries, mass media, permanent exhibitions of entrepreneurial achievements, economic conditions and the existence of successful and accessible models as the basic themes and, finally, the component of socioeconomic-cultural conditions as an organizing theme in the formation of such schools plays an important role.

• Concepts agreed upon by the participants regarding the organizing component of financial and non-financial support

Concepts such as employing efficient and entrepreneurial forces, lending to entrepreneurial teachers, government support of entrepreneurial students and teachers, investing in school, supporting student business plans, supporting managers and supporting change in managerial thinking as the main themes to create a component or organizing financial and non-financial support are effective and have an important role.

The Study of the second question of the research: What is the appropriate model of entrepreneurial school in Iranian education?

Regarding the findings of the qualitative analysis of the texts obtained from the interviews of faculty members, the instructors and managers of the vocational schools after the stage of open coding and extracting concepts in the stage of coding the components of research and finally in the third stage (selective coding) the dimensions of the research subject that involves inter organizational factors (individual, organizational) and extra organizational (environmental) are effective in creating entrepreneurial schools. All nodes or concepts (basic themes) that are extracted from the analysis of 20 texts of the interview are as follows:

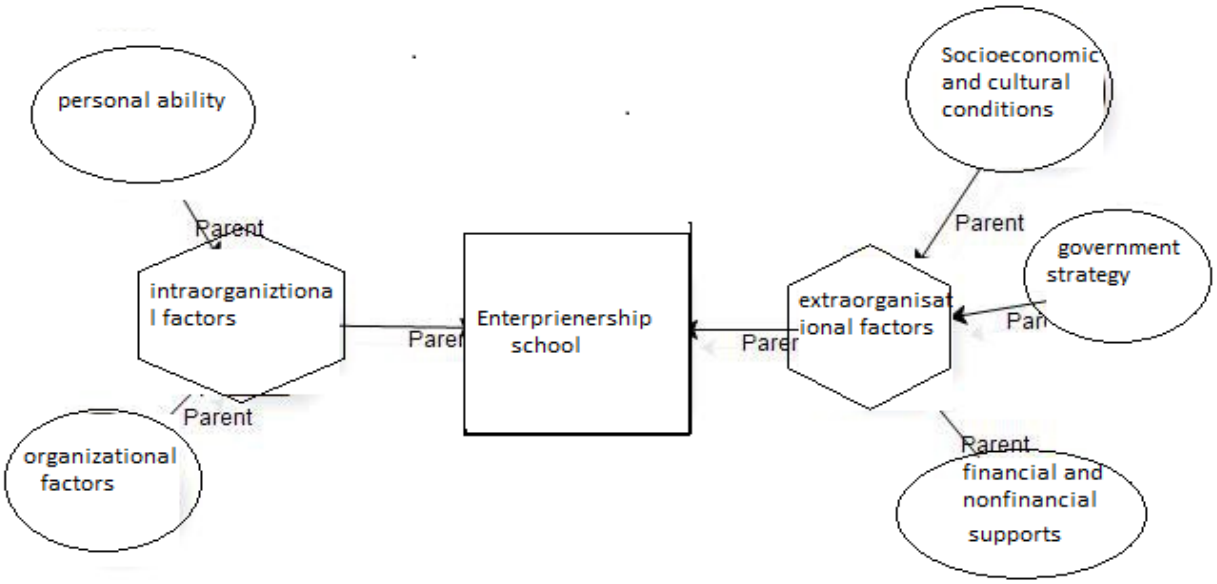


Figure 1 - The conceptual model of entrepreneurial school after qualitative analysis

The Conceptual Model Validation of the Entrepreneur School

A. Qualitative Validation of the Conceptual Model of the Entrepreneur's School

The Delphi method is used to validate the design pattern in the qualitative analysis section.

In this part of the research, the experts were selected based on theoretical domains, practical experience, willingness and ability to participate in research and access. In order to determine the validity of the concepts

and components obtained, a questionnaire was constructed with 16 components and a Likert scale of 5 degrees (very low: 1), (low: 2), (somewhat: 3), (high: 4), (Very high: 5) and 4 acceptance criteria was considered. Delphi Validation was then completed in two rounds, with the participation of 20 professorial professors in the field of science education.

-The results of the survey of central indicators and the first stage dispersion

The first round of concepts that were calculated above the average of 4 were included in the second round questionnaire, of which only five concepts were eliminated due to the average of less than 4 of the second round of the questionnaire. The mean and standard deviations of items that will be removed from the second round of the questionnaire will be seen in Table (3):

Table 3. Concepts of disagreement between members of the panel

Row	Concepts of Disagreement	mean	Standard deviation
1	Parental education	3/250	1/164
2	Geolocation	3/200	1/056
3	Evaluation system	3/75	0/63
4	Teachers' professional education promotion	3/83	0/47
5	Reduced administrative formalities for obtaining licenses	3/700	0/571

The results of the Kendall test in the first stage

In this study, the Kendall Coordination coefficient was used to assess the consensus and coordination of Panel members' views. This coefficientis a scale to determine the degree of coordination and agreement between several categories of rank related toNobject or person. The numerical test between zero and one is presented as a statistic, where the zero indicates the disagreement and the number represents a complete agreement among the members of the panel. As shown by the figures in the table, the Kendal Coordinating Coefficient rate is 88 indicators among 20 professors, entrepreneurship instructors, and school principals equal to Kendall's ’w= 0/ 605 indicating a fairly strong agreement among referees on the indicators considered. Also, a meaningful value with a degree of freedom, df = 87, is also calculated to be equal to p.vahue =0/ 000 which shows with 95% confidence the coordination between the opinions of the experts on the factors influencing the creation of the entrepreneurial school. Therefore, H1, which represents the agreement between the members of the panel, is confirmed and H0 is rejected.

Table 4. The amount of Kendall coordination coefficient of the first stage

stage	**number**	**Kendall Coordinating Coefficient**	**Degree of Freedom**	**Meaningfulness**
first	20	0/605	87	0/000

The results of the study of central indicators and second stage dispersion

The second stage questionnaire of qualitative validation wasmade by removing five concepts of parental education, social status of the place of residence, assessment system, teacher professional training and reducing administrative formalities for obtaining permitsand was sent to 20 panel members. In order to maintain the value and the credibility of the study,the extent of therespondents 'answer in each Delphi round should not be less than 70%. The results of the study and the calculation of the central indices and the dispersion of the indicators in the second round of the questionnaire show that all the concepts included in the second stage questionnaire (83 indicators) have an average higher than 4 and agreed upon by panel members.

The results of Kendall's test in the second stage

The results of the Kendall Coordination Coefficients of indexes of the second stage questionnaire show that Kendall's Coordinating Coefficient rate of 83 indicators among 20 teachers, entrepreneurship lecturers, and school administrators is equal to Kendalls’w= 757.7, indicating a very strong agreement among judges on

considered Indicators. Also, a meaningful value with a degree of freedom of df =82 is also calculated equal to P.value = 0.000, which shows with 95% confidence the coordination between the opinions of the experts on the factors affecting the creation of the entrepreneur's school. Therefore, H1, which represents the agreement between the members of the panel, is confirmed and H0 is rejected.

Table 5: The amount of Kendall coordination coefficient of the second stage

stage	number	Kendall coordination coefficient	The degree of freedom	meaningfulness
first	20	0/757	82	0/000

Given that the number of Delphi periods is variable and dependent on the purpose of the research (Delbek et al, 1975; Alexander, 2004; Rosenbaum; 1985; Thompson, 1985; quoted by Skolmowski et al, 2007; Landta; 2006; Windle, 2004; AbbasiEsfanjani and FerozandehDehkordi, 2015 quoting Hedayati, 2016) two or three replicates for Delphi is considered to be sufficient. Therefore, according to the results of the first and second steps, it can be stated that there is a consensus among the members of the panel and the repetition of the rounds should be finished. Kendall coordination coefficient of the second stage increased by 0.152 more than first stage. Therefore, it can be stated that there is a consensus among panel members and that the rounds repetition should be finished.

B) Quantitative validation of the conceptual model of the entrepreneur's school

The Spss19 and Lisrel 8.5 software have been used to achieve the appropriate entrepreneurial school model and determining its fit with the collected data. At first, central tendency indicators and variability dimensions were calculated in descriptive statistics and then, for the purpose of designing the model and determining the appropriateness of fit, a confirmatory factor analysis was carried out on all identified concepts and components, and finally, using the path analysis the causal relationships between them were tested.

B. The Description of the Dimensionsand Components of the Entrepreneur's School with Indicators of Central Trend and Variable measures

• The Description of the Dimensions of personal abilities and its Components

Intra-organizational factors include two dimensions of individual and organizational capabilities. Individual abilities dimension includes the components or themes of the organizing features (psycho-motivational-attitude), demographic, management style and skill (mental-interpersonal-organizational). Component of individual features with 8 indicators, demographic with 4 indicators, management style with 3 indicators. Skills are also measured with 5 indicators or concepts. Finally, individual abilities with 20 points were measured. The adjustment questionnaire was distributed among 210 teachers and school administrators and finally, after data collection, the central tendency and variability measures were calculated. As the numbers and figures in the table below are, the components of psycho-motivational-attitude, demographic, management style and mental skills-interpersonal-organizational components have the mean and standard deviation (M = 4.81, SD = 0.34), (M = 4.80 SD=0/32), (M = 4.88, SD = 0/26), (M = 4.04, SD = 0/25), and in total the individual abilities dimension have a mean and standard deviation of SD = 0/20 and M= 4/63.

Table 6. Results from the study of central indicators and the dispersion of individual abilities dimension and its components

Dimension / component	number	mean	Standard deviation
Characteristics (psycho-motivational-attitude)	210	4/81	0/34
Demographics	210	4/80	0/32
management style	210	4/88	0/26
Skill (mentally-interpersonal-organizational)	210	4/04	0/25
Individual abilities	210	4/63	0/20

• The Description of the organizational dimension and its components

Organizational dimension has been evaluated with organizational components of new methods of reward with 4 indicators, management support with 5 indicators, delegation with 6 indicators, time opportunity with 3 indicators, Curriculum system with 6 indicators, strategic orientation with 3 indicators, entrepreneurship culture with 5 Indicator, entrepreneurship education with 6 indicators and space and equipment with 5 indicators or basic concepts. Accordingly, the components or organization concepts have mean values and standard deviations (SD = 0.32, M = 4.85), (SD = 0.27 M = 4/86), (SD = 0.28, M = 4.83), (SD = 0.29, M = 4.84), (SD = 0.28, M = 4.83) (SD = 0.25, M = 4.80), (SD = 0.22, M = 4.81), (SD = 0.21, M = 4.81), and organizational dimension has an average value of M=4/83 and standard deviation of SD = 1/9.

Table 7. Results from the study of central indicators and dispersion of organizational dimension and its components

Dimension / component	number	mean	Standard deviation
New ways of rewarding	210	4/85	0/32
Management support	210	4/86	0/27
Delegation	210	4/83	0/28
Time opportunity	210	4/84	0/29
Curriculum system	210	4/82	0/26
Strategic orientation	210	4/81	0/29
Entrepreneurship Culture	210	4/86	0/21
Entrepreneurship Education	210	4/81	0/22
Space and equipment	210	4/80	0/25
Organizational	210	4/83	1/9

•The description of the external factors dimension (environment) and its components

An external or environmental dimension includes three components of the organization of government policy, socio-economic-cultural conditions, and financial and non-financial support. The component of government policy is measured by 3 indicators, socioeconomic-cultural conditions with 11 indicators and financial and non-financial support with 6 indicators. Each component has mean and standard deviations respectively (SD = 0/36, M = 4/74), (M = 4.75, SD = 0.24), (M = 4/70, 0/33 = SD) and finally, the environmental dimension with an average value of M = 4.73 and a standard deviation of SD = 0.25.

Table 8: Results of the study of central indicators and dispersion of environmental dimension and its components

Dimension / component	number	mean	standard deviations
Government policy	210	4/74	0/36
Socio-Economic-Cultural Conditions	210	4/75	0/24
Financial and non-financial support	210	4/70	0/33
Out-of-office (environment)	210	4/73	0/25

Inferential Findings of Research in Quantitative Validation section

Direct and indirect causal relationships between the studied components considered as research hypotheses were evaluated and inferred in inferential analysis.

The confirmatory factor analysis of the research to explain the conceptual equation to be extracted from the qualitative data analysis

The conceptual model hypotheses of the entrepreneurial school were examined and tested using path analysis. And the relationship between dimensions and components of research was studied using path analysis.

Therefore, according to the values of fitness indexes, the path analysis model is in good condition in all dimensions. In order to determine the intrinsic relation between the components and dimensions of the research, considering the conceptual model obtained, the qualitative analysis of the structural equation model was mappedwith the help of the LiserL software. Before the model is mapped, the normal data test must be performed.

Normality test of variables

Shapirotest Wilk test was used to evaluate the data normalization and determine the type of test. If the data has a normal distribution, parametric tests are used otherwise nonparametric tests are applied. If the significance level is greater than or equal to 0.05 (Sig $0 \geq 0/05$), the data is normal and parametric tests must be used and, if smaller than 0.05 (Sig $0 < 0/05$), the data are abnormal, and Nonparametric tests must be used .

The distribution of data for each of the variables is normal. = H0

The distribution of data for each of the variables is not normal. = H1

Table 9 - Summary of Normality Test Results (Shapiro Wilk) for Research Variables

Research Variables	(Shapiro - wilk)	degree of freedom (df)	Meaningful value (Sig)
Characteristics (psycho-motivational-attitudinal)	0/581	210	0/000
Demographics	0/630	210	0/000
Management style	0/497	210	0/000
Skill (mentally-interpersonal-organizational)	0/545	210	0/000
Individual Capacity	0/731	210	0/000
New ways of rewarding	0/536	210	0/000
Management support	0/575	210	0/000
Delegation	0/633	210	0/000
Time opportunity	0/577	210	0/000
Curriculum system	0/708	210	0/000
Strategic orientation is	0/662	210	0/000
Entrepreneurship Culture	0/677	210	
Entrepreneurship Education	0/790	210	0/000

Space and equipment	0/757	210	0/000
Organizational	0/787	210	0/000
Government policy	0/723	210	0/000
Socio-Economic-Cultural Conditions	0/883	210	0/000
Financial and non-financial support	0/802	210	0/000
Out-of-office (peripheral	0/863	210	0/000

Considering the values obtained from the study of the distribution of data by Shapiro Wilk test, it can be said that the significance level of all variables is less than 0.05 (Sig < 0.05), which indicates that the H0 assumption is rejected and the H1 assumption based on data abnormality is confirmed. Therefore, nonparametric test is used to analyze the data.

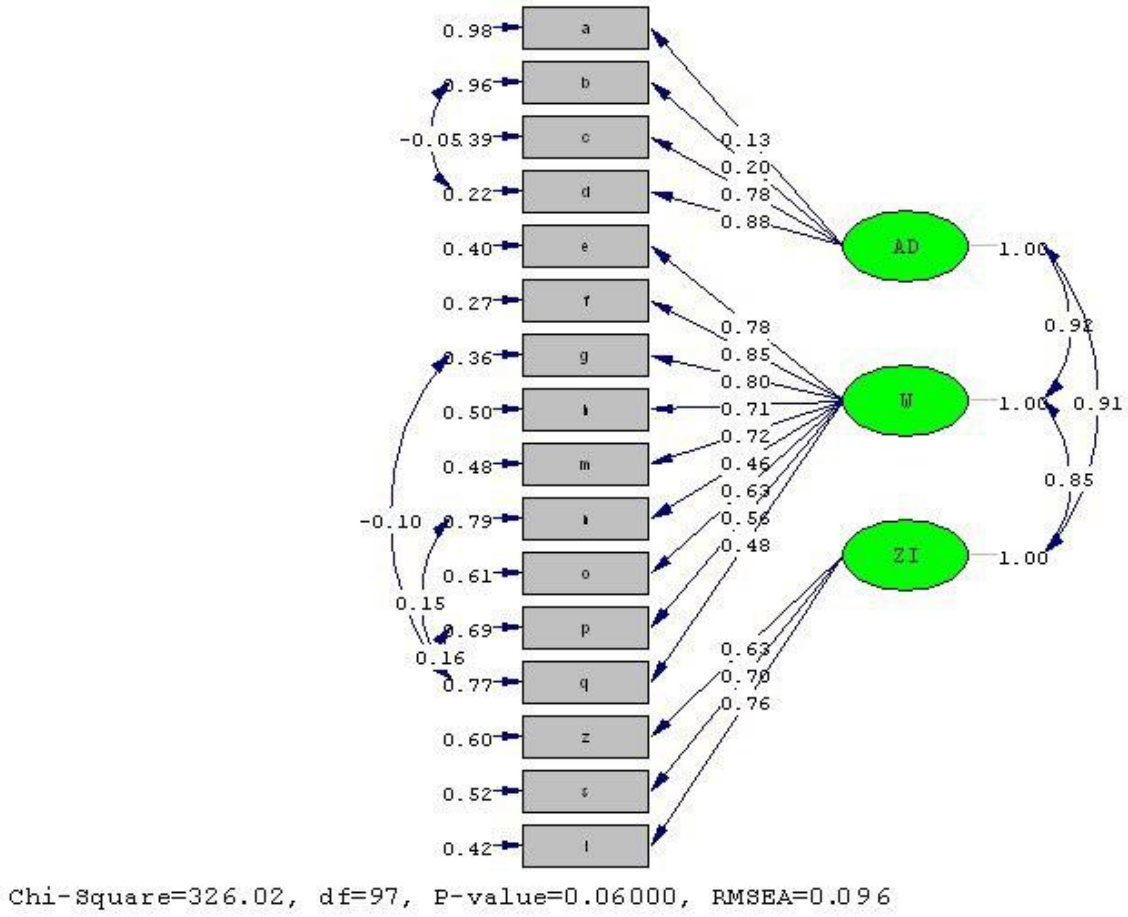
C-Testing the hypotheses using the structural equation model explained

• There is a significant relationship between four components of the characteristics (psycho-motivational-attitude), demographic, management style, skills (mental-interpersonal-organizational) and individual ability (AD).

• There is a significant relationship between nine components of new rewards methods, management support, delegation, time opportunity, curriculum system, strategic orientation, entrepreneurial culture, entrepreneurship education, space and equipment, and organizational factors (W).

• There is a significant relationship between three components of government policy, socioeconomic-cultural conditions, financial and non-financial support, and extra organizational (environmental) - ZI.

Fit Diagram of Components of Research Dimensions



Then the entrepreneurial school model, which was designed in the qualitative analysis section, was examined for final confirmation:

• One of the best indicators of the goodness of fitting the model is to examine the ratio of the Chi-square statistic to degree of freedom ($^{x2}/_{df}$). Of course, there is no standard for the suitability of this index (Abbasi and Ja'fari,2015: 191). In this study, the ratio is$\frac{212.49}{93} = 28.2$.

• P-Value Index: This index is another criterion to measure the suitability of the model. But there is no consensus on the acceptability of this indicator. Some statisticians think that the amount should be less than 0.05. The P-value for this research model is 0.04.

• **The Root Mean Square Error of Approximation** (RMSEA): This index is based on model errors and, like the chi square index, is a benchmark for model badness. Some thinkers believe that this index should be less than 0.1. The index for research model is 0.07.

• Goodness of fitting index (GFI): This index is a benchmark for measuring the goodness of the model, and a value higher than 0.9 represents the suitability of the extracted model with respect to the data. The index for this model is 0.49.

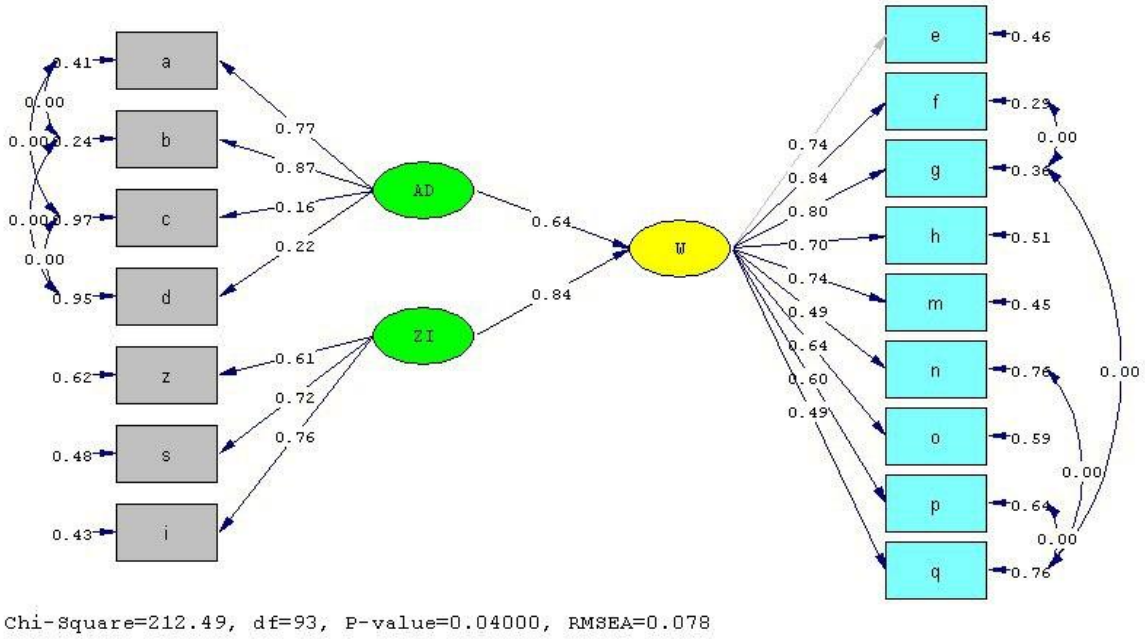
• Adjusted goodness of fit index(AGFI): This indicator is in fact the adjusted GFI index with respect to the degree of freedom of the dF and is another measure of goodness of the model. If the index is higher than 0.9, then the data extraction model is appropriate. The index for this model is 0.49.

• Normed fit index (NFI): This indicator is another indicator to measure the goodness of the model obtained with respect to the data. If the index is higher than 0.9, then the extraction model is appropriate. The index value for the obtained model is 0.95.

• Finally, by correction of the model, the relationships of variables that were not approved were deleted from the model and the final model was adjusted, and a total of 18 hypotheses were confirmed. The results indicate good fit of this research data and other fitness indicators also confirm the fitness of the model. As a result, the concepts extracted from the qualitative analysis of interview texts and the adjusted questionnaire have construct validity.

Table 10 -Goodness of fit Indicatorsof model in the research

Indicator	Value
$\frac{x2}{df}$	2/28
P- value < 0.05	0/04
RMSEA< 0.1	0/07
NFI> 0.9	0/95
GFI≥ 0.9	0/94
$0 \leq$AGFI	0/94



The fitting diagram of the final model of the Entrepreneur's School in Standard Mode

III. Discussion and conclusion

The Grounded Theory is one of the ways that can play a fundamental role as a bridge between the two past and future paradigms and, through the use of induction and on the basis of real and qualitative data, to create and construct a theory. This methodology, by breaking the boundaries of the past, which often was satisfied with analogy used theories testing, deals itself with theorizing. The purpose of this study is to determine the factors affecting the creation of entrepreneurial schools to design the school model based on the data theory of the foundation. Although the overall purpose of this project was to formulate the "model of the entrepreneurial school", it is possible to highlight the importance of considering entrepreneurship in education as the ultimate goal. Therefore, it is essential to address the project of creating an "entrepreneurial school" in education by other researchers in the field of education as one of the main and important solutions to the development of the

country. Because entrepreneurial schools are the cornerstone of commercialization and giving business approaches to student and cultural research activities. In this research, based on the ideas of "entrepreneurial enterprise" and "applied and development research" carried out both inside and outside the country, internal organizational factors including individual (psychological, motivational, attitude features, demographic, management style and organizational mental and interpersonal skills) organizational abilities(new methods of encouragement, management support, delegation, time opportunity, curriculum system, entrepreneurship culture, entrepreneurship education, space and equipment, and strategic orientation), and organizational external factors include (State policy, socio-economic-cultural conditions, and financial and non-financial support) that should be considered in creating entrepreneurial schools . Therefore, this research has been upgraded from the promotion level to explore the pattern.

Educational authorities and educators should focus on establishing such schools and take the necessary steps in relation to identified factors. Research findings also indicate that the strategic orientation of managers and the existence of programs, perspectives, macroeconomic and applied goals, policies, procedures, etc., in addition to other factors, plays an important role in the establishment and expansion of such schools. Also, by studying the research findings, it should be stated that the development of an entrepreneurial-oriented action plan, appropriate for entrepreneurship, its implementation at the levels of the departments and schools, assessment and feedback, and its improvement in the development of entrepreneurial schools is one of the most important issues of education managers and officials.

Obviously, fulfilling the goals of this research requires more extensive scientific efforts and researches. Undoubtedly, if the results of this plan are addressed by planners and policymakers of the education sector and other researchers in the country, research goals will be achieved.

Proposals based on research findings

According to the research questions and the results, the main components of the entrepreneurial schools which are the identification and design of the model, the following suggestions are provided to the authorities and researchers of the field of science education:

1- It is recommended to consider the psychological, motivational and attitudes of students, managers and teachers in educational programs.

2- It is suggested that the education authorities and authors and consider the entrepreneurial approach in the textbooks and educational activities from the beginning of the elementary school year.

3-It should be consideredto create and strengthen the entrepreneurial morale in "participatory management" schools.

4. It is recommended to consider creating mental, interpersonal and organizational skills in determining the content of the textbooks and teaching them in the classroom.

5. It is suggested to education authorities and officials that "entrepreneurship culture" be the focus of all educational and training activities.

6. It is recommended that the strategic orientation of education be tailored to the development and expansion of entrepreneurship culture.

7. It is recommended that the officials of the education departments should communicate and interact with the centers of development in order to develop the entrepreneurial culture and encourage students to take business and business approaches.

8. The ideas of entrepreneurship and entrepreneurial teachers will be honored and celebrated annually.

9. It is recommended that managers and practitioners make appropriate decisions for holding conferences, competitions and festivals in line with the expansion of entrepreneurial culture at the level of cities and regions of the province.

10. It is suggested that under the curriculum system of the act of the fundamental transformation of education, the entrepreneurial teaching method and hidden entrepreneurial curriculum should be considered.

11. The rules of support should be laid down for students, teachers and managers in recruitment processes, lending, investments, etc.

12. In order to promote the motivation for the advancement of the cultures, it will be appreciated from the colleagues of the entrepreneur in the week of research and technology and the week of jobs.

13. School administrators and officials are recommended to identify entrepreneurial activities in schools with respect to gender variables.

References

[1.] AhmadPourdariani, Mahmoud (2008), "Entrepreneurship: Definitions, Theories and Patterns", Tehran: Jajarmi.

[2.] AhmadpourDaryani, Mahmoud and Moghimi, Mohammad (2006), Basics of Entrepreneurship, Tehran: Farandish.

[3.] Ahmadi, Heydar, FarajollahHosseini, Jamal and Najaf Abadi, Maryam (2009). Identifying some factors affecting the promotion of entrepreneurship among graduate students at the faculty of agriculture and natural resources of Islamic Azad University, Science and Research Branch of Tehran, Leadership and Educational Management of Islamic Azad University Quarterly, Garmsar Branch, Third Year, No. 9.

[4.] Izan, Mohsen (2015), Revision of Education with Entrepreneurship Approach, Tehran: Ney Publishing.

[5.] Bazargan, Abbas (2016), An Introduction to Qualitative and Mixed Research Methods, Tehran: Didar.

[6.] BabaeiOrbosera, Iraj et al (2009), Entrepreneurship, Creativity and Innovation, Ideas, Risk-taking, Psychology, Tehran: Ava.

[7.] Turani, Heydar (2003). Qualifying of Primary Education with Comprehensive Qualifying Management Approach, Tehran: Ghoo Publication. Second edition.

[8.] Hosseini, Sakineh (2008). The Effect of Entrepreneurship Education on Entrepreneurship Students' Perceptions of Entrepreneurship. Master's Degree thesis, Faculty of Entrepreneurship Management, University of Tehran.

[9.] Hariri, Najla (2006), Principles and Methods of Qualitative Research, Tehran: Islamic Azad University, Science and Research Branch.

[10.] Sadaty, Ali Akbar and Sadaty, Seyed Abbas (2007), Entrepreneurship and Strategic Management, Sari: Center for Science Development Publishing.

[11.] Sarmad, Zohreh, Bazargan, Abbas and Hejazi, Elaheh (2006), Research Methods in Behavioral Sciences, Tehran: Agah.

[12.] Sadegpour, Bahram and Moradi, Vahab (2010), Statistical analysis using SPSS, Amoss, software,Babolsar: Mazandaran University.

[13.] Abbas Zadeh, Hassan (2015), Basics of Entrepreneurship and Business Principles, Tehran: GahvareKetabiran.

[14.] Abbas Zadeh, Hassan and Rezaei, Abbas (2010). Evaluation of the function of delegation to the Organization of Commerce of the Provinces, Basirat Quarterly, 17th, No. 45.

[15.] Flick, Eve (2008), An Introduction to Qualitative Research, Translated by HadiJalili, Tehran: Ney.

[16.] Farzaneh, Seifollah and TaheriOtaghsara, Fakhrosadat (2015), The Impact of Human Capital on Organizational Entrepreneurship (Case Study; Babol Education Department), Quarterly Journal of Socio-Cultural Development Studies, No. 4, Third Year.

[17.] Keshavarzi, Ali Hossein (2013), Innovation and Entrepreneurship, Tehran: SAMT.

[18.] Kalantari, Khalil (2008), Structural Equation Modeling in Socioeconomic Research, Tehran: Farhang-e-saba.

[19.] Mohammadpour, Ahmad (2011), Qualitative research method-anti-method 2, Tehran: sociologists.

[20.] Mohammadpour, Ahmad (2010), Anti-Method: Logic in Qualitative Methodology (Vol. I), Tehran: Sociologists.

[21.] Mousavi, Maliheh (2011), "Strategies for Increasing the Entrepreneurial Spirituality in Students of Technical and Vocational Schools and work and knowledge Schools - A Case Study of Mazandaran Province", Master's Thesis, Islamic Azad University, Sari Branch.

[22.] MirzaeiAhrjandi, H. And Sarlak, (2005). A look at organizational epistemology: evolution, schools and management applications. Peyk-e Noor Quarterly.

[23.] NohEbrahim, Abdolrahim and Tandest, Ashkan (2008), Study of entrepreneurship indices among the final year students of the theoretical, technical and pedagogical fields (Garmsar schools), Journal of Educationalleadership and Management, Islamic Azad University, Garmsar Branch, year 2.

[24.] Moghimi, Seyyed Mohammad, Vakili, Yousef and Akbari, Morteza (2013), Theories of Entrepreneurship, Tehran: Tehran University, Publishing Institute.
[25.] Entreprenership education in Europe: Fostering Entrepreneurial Mindset through Education and learning,OSLO,-October.
[26.] Upton. N, C. Moore, L. Wachols and learning needs of family-owned and entrepreneurship firms. Hankamerschool of business journal. No.17.- Antonic, Bostjan. Hisirich, Robert. D (2003) Clarifying the entrepreneurship Concept, Journal of small business and enterprise, Volume 10, Number 1,Pp 7-24ClaessensB.T.CRutte. C.G , Van Eerd.W.& Roe. R.A,(2007), Reviw of the time management literature personnalereviwjournal of organizational behavior,36
[27.] CodrinaConţiu, Lia (2008). The importance of individualism vs collectivism in organizational entrepreneurship, învolumul Proceedings of National and Regional Economics VII, Technical University of Kosice, Faculty of Economics, Herlany, Slovacia, 1-3.
[28.] Entrepreneurship skills and motivation, European Economic Review,54,442-454.
[29.] Entreprenership education in Europe: Fostering Entrepreneurial Mindset through Education and learning,OSLO,-October.
[30.] Eslambolchi, Mostafa (2012), Entrepreneurship Training and Its Components in Organization; Explaining Ethical Work Climate Based on the Victor and Cullen Model, Journal of Basic and Applied Scientific Research,No 12.
[31.] Guven, S. (2009) .new Hennessey, Beth and Amiable, Teresa M. (2011) Creativity. By Harvard University. www.annualreviews.org
[32.] Histrich, Robert D. and Peters, Michael P.(2002). *Entrepreneurship*. New York: McGraw- Hill.
[33.] Matlay, H. and Carey, C. (2007), "Entrepreneurship education in the UK: a longitudinal perspective", Journal of Small Business and Enterprise Development, Vol. 14 No. 2, pp. 252-63.
[34.] Primary education Course Programmers and entrepreneurship. Procedia Social and Behavioral Sciences (1), PP. 265 -270.
[35.] Upton. N, C. Moore, L. Wachols and learning needs of family-owned and entrepreneurship firms. Hankamerschool of business journal. No.17.
[36.] Solomon, G. (2007), "An examination of entrepreneurship education in the United States", Journal of Small Business and Enterprise Development, Vol. 14 No. 2, pp. 168-82.
[37.] YarHamidi. D, Wennberg. K, Berglund, H (2008). Creativity in entreprenurship education. Journl of small Business and Enreprise development; volom: 15 Issue; 2; 2008 Research paper.