

## Presentation of Women's Entrepreneurship Education Model Based on the International Labor Organization Standards in Iran

Fatemeh Abdari<sup>1</sup>, Fereydoon Azma<sup>2\*</sup>, Mahmoud Reza Cheraghali<sup>3</sup>, Mohammad Bagher Gorgi<sup>4</sup>

<sup>1</sup>PhD student of Entrepreneurship, Ali Abad Katoul Branch, Islamic Azad University, Ali Abad Katoul, Iran

<sup>2</sup>Department of Management, Ali Abad Katoul Branch, Islamic Azad University, Ali Abad Katoul, Iran.

<sup>3</sup>Department of Management, Ali Abad Katoul Branch, Islamic Azad University, Ali Abad Katoul, Iran.

<sup>4</sup>Department of Management, Ali Abad Katoul Branch, Islamic Azad University, Ali Abad Katoul, Iran.

### Abstract

*This research was conducted to present a model of women's entrepreneurship education based on the International Labor Organization (ILO) standards in Iran. The research method is mixed-exploratory in terms of approach. The statistical population in the qualitative phase was university professors, managers and educational experts with sufficient and successful experiences, and in the quantitative phase, it was all employees of the Ministry of Cooperatives, Labor and Social Welfare with the educational level of bachelor or higher. In the qualitative section of the research, sampling was done by the snowball method, and this section reached theoretical saturation after interviewing 20 experts. The sample size in the quantitative section according to the Cochran formula was calculated to equal to 291 persons that the questionnaire was distributed among 300 persons for further assurance, and sampling was performed by random sampling method. The data collection tool in the qualitative phase was a questionnaire containing open-ended questions for the interview, and in the quantitative phase was a researcher-made questionnaire that its validity and reliability were investigated and confirmed in various ways. Interview text was investigated using MAXQDA 2018 software and the dimensions and components of the model were identified. The research model was then investigated using a confirmatory factor analysis approach and smart PLS 2.0 software. The results showed that the model of women's entrepreneurship education based on the International Labor Organization (ILO) standards in Iran consists of six dimensions: women's individual characteristics for entrepreneurship education, prerequisites, characteristics and methods of women's entrepreneurship education, and cultural and legal components. All dimensions and components were statistically significant and were therefore confirmed. Hence, it is necessary for the government to flourish women's entrepreneurship more than before by financial (providing facilities and allocating appropriate credits) and spiritual (culture-building for women's entrepreneurship) support.*

**Keywords:** Education, Women's Entrepreneurship, International Labor Organization, Confirmatory Factor Analysis

### 1. Introduction

Entrepreneurship is a new economic technical phenomenon that has transformed the world of economics and industry with its surprising consequences in the last two decades. Available evidence show that entrepreneurship can be nurtured as a result of educational programs. Entrepreneurship education provides the knowledge, motivation, and skill needed to start and the advancement of the process of the affairs of a successful business. Therefore, in order to nurture more people on the path of entrepreneurship and to improve their entrepreneurial capabilities, explaining entrepreneurship education models is of great importance. Entrepreneurship education has nowadays become one of the most important and most widespread activities (Salazar, M. S., 2004).

The existence of an entrepreneur is essential and vital in today's knowledge-based economy and this necessity has been acknowledged many times by various scholars. For this reason, entrepreneurship education has been increased in various forms and at wide educational levels. The educational system in this method should respond to the current needs of the community.

An entrepreneur is told to a person who discovers the best and latest economic and commercial situations and knows the way of using these opportunities. This person usually has a high level of talent, creativity, initiative, organizing, and management (Cole, 1950).

Sustainable development of the communities, and consequently human resources development depend on the point that the governments as the most powerful economic and social agents while providing proper context and creating the space necessary for the human talents growth and flourishing, exploit the capability of the entire economically active population, including men and women, and make that capability effective.

Over the years, women tried to change these social beliefs. Governments have also been trying to develop employment and, in particular, women's entrepreneurship, in order to activate the role of women in the economies of the communities, and women's entrepreneurship topic has been proposed since the 1970s (Saber, 2002).

According to the statistics from the Iran Organization of Educational Testing, in recent years a large proportion of university students are composed of women. However, this fact is not hidden to anybody that many graduates of Iran universities are being added to the unemployed community. In addition to unemployment, the low wages of working women than men and their dissatisfaction with job conditions are factors that lead women towards entrepreneurship. In fact, women's entrepreneurship will not only have a direct impact on economic growth and job creation but will also highly contribute to the health of the community by creating a sense of effectiveness and being useful among women.

Entrepreneurs generally have specific characteristics such as risk-taking, creativity, group working and the habit to study and learn. However, characteristics such as seeking success, creativity and flexibility have been observed more among entrepreneur women. The main incentives of women of entrepreneurship have also been an economic need, acquiring power, and the credit of the community. Another point that can be important in women's entrepreneurship is the specific characteristics of entrepreneur women. Characteristics such as the sense of patronage and patience and capacity and the communication skills of entrepreneurship make women distinct from men (Arasti et al., 2016).

The increasing participation ratio of women in jobs related to education and training, nursing and health care and services that most women tend to do shows that women also tend to do works that are more consistent and match their traditional roles and mental characteristics. Paving the contexts for increasing the social participation of women and facilitating their entry into the labor market not only make the community benefit from these existing human resources capacities but also enhance the quality of women's social life and consequently promote the qualitative and quantitative level of the family (spouse and children) (Eskandari, 2017).

Entrepreneurship education among studies include the categories of the teaching methods of entrepreneurship education (Azizinejad et al., 2018; Movahedi and Soleimani Boroujeni, 2016; Arasti et al., 2015; Bullough et al., 2015), the nature of entrepreneurship education (Ojaghi et al., 2016, Dehbashi et al., 2014; Shaemi et al., 2011; Neelam and Shikha, 2017), and curriculum (Mortezanejad et al., 2017; Abdollah Zadeh et al., 2015). Strategic entrepreneurship education in order to improve entrepreneurial attitudes is an entrepreneurial motivation (LePine and Noe, 2000; Chuang, Liao and Tai, Colquitt 2005). Entrepreneurial education studies have focused more on the nature of entrepreneurship education, but in investigating the tools and methods of teaching, entrepreneurial education courses have a shortage of study. Entrepreneurial education requires the contexts of teaching methods, teaching content, and curriculum. Each of the components of entrepreneurship education is formed within the heart of courses, and such entrepreneurial education practices within the context of the organization are education-oriented.

Women's entrepreneurship is a social category at the community level. Extensive studies have been carried out in respect of women's entrepreneurship (Golred, 2005; Golred, 2009; Niyazkar and Arab Moghaddam, 2010). Women's entrepreneurship has contexts including social networks, social dimensions, institutions, and so on. In other words, women's entrepreneurship has numerous dimensions: women's entrepreneurship motivations (Lee, 1996; Raman et al., 2013); family businesses (Subuntic and Bock, 2013); women's social networks (Golred et al., 2017); and women's success (Raostamali Zadeh and Jomehie, 2018).

Women's entrepreneurship is an activity with an emphasis on being entrepreneurial taken from economic, social, political, and cultural opportunities that is being formed. In other words, women's entrepreneurship is regarded as a social or economic opportunity that begins through motivation, social networks, and home business conditions, and continues the business in order to apply entrepreneurial conditions and action. The conducted studies have considered the nature of women's entrepreneurship and have less tried to consider the conditions to start and survive the business.

This research seeks to identify specific components and characteristics of women's entrepreneurship that this recognition can also be applied to design and offer other educational models and patterns based on the International Labor Organization (ILO) standards. In general, the question of this research is how a model of women's entrepreneurship education based on the International Labor Organization (ILO) standards can be presented in Iran?

## **2. Research Experimental History**

In a study, Rabiei and Nazarian (2013) investigated the entrepreneurship barriers of university-educated women in Iran. The findings indicated that cultural and individual barriers are the most important barriers facing women's entrepreneurship, and in this regard factors such as gender discriminations in the workplace, fear of failure and greater irritability of women compared to men, the intersection of company affairs and family issues, and the inconsistency of role expectations, the existence of cumbersome bureaucratic and administrative rules, and the provision of initial capital and the necessary liquidity have the highest priority and importance.

In a study, Momayez et al. (2013) investigated the factors affecting women's entrepreneurship development. The results showed that although employed women have a dual role, they have a positive feeling about their activities. In the end, suggestions and solutions for developing and expanding women's entrepreneurial activities are proposed the most important of which is culture-building in changing the attitude of the community towards women's empowerment in economic activities.

Movahedi and Soleimanian Boroujeni (2016) in a study investigated the educational method in the entrepreneurship development of the organization. The results showed that the ratio of women's awareness with regard to studying entrepreneurship is at a moderate limit and most of them had a positive attitude about the role of education in improving entrepreneurship. According to the results of the factor analysis test, educational methods affecting rural women's entrepreneurship development were classified in order of importance in the three factors of specialized entrepreneurship training, use of information and experiences of successful entrepreneur women, and the use of media and internet.

In a study, Rastomali Zadeh and Jomeh Zadeh (2018) investigated the factors affecting the success of entrepreneur women. The results showed that socio-economic characteristics and conditions including age, marital status, educational level, work experience, and income ratio have an important role in the entrepreneurship ratio of the women of Tehran. That is, as age increases, the entrepreneurship ratio of women slightly decreases. Single individuals and those with bachelor education have a higher entrepreneurial spirit; also as the work experience increases the entrepreneurial spirit of women enhances. Ultimately, trying to promote income enhances women's entrepreneurial spirit. According to the regression analysis results, the variables of progress incentive, innovation, management skills, collaboration culture, entrepreneur parents, the experience of gender discrimination at work, support of public institutions, appropriate legal structures, and wide social relationship have been able to explain 73.3% of the changes of entrepreneurship variable.

In a study, Pakham et al. (2010) investigated the impact of business education on entrepreneurial attitude among academic educational institutions in France, Germany, and Poland. The findings showed that there is a positive impact on entrepreneurial attitude from France and Poland. Courses have a negative impact on German male students. Male students perceive a greater advantage of experiential learning, and male students have a significantly greater impact of business training on entrepreneurial attitude.

Neelam and Shikha (2017) in a study addressed the impact of entrepreneurship education on women's entrepreneurship development. The empowerment of women to foster entrepreneurship development is the impact of new business creation. The results confirm that the effectiveness of entrepreneurship education helps the challenges facing new business creation.

Yun Hee Cho et al. (2018) in a study addressed entrepreneurship orientation, performance, and entrepreneurship education. The results showed that, firstly, among the minor factors of entrepreneurship orientation, it is clear that as innovation progresses, it affects nonfinancial business performance. Secondly, the risk-taking tendency on trade does not affect both business performance and the non-financial economy. Thirdly, entrepreneurship education does not have any relationship with entrepreneurship orientation or business performance. Innovative actions affect non-financial business performance. Therefore, entrepreneurs must pursue ways to promote their innovative activity. Entrepreneurship education for experienced entrepreneurs is not effective for students.

### **3. Research Theoretical Framework**

Most women's entrepreneurship studies have focused on success, social network, family business, and so on. In other words, studies have emphasized the process of dimensions affecting women's entrepreneurship, and each one of the studies has identified the nature of social entrepreneurship. The pathology of the conducted studies shows that the literature of entrepreneur women is poor and requires the presentation of fundamental studies in order to launch women's entrepreneurship.

Women's entrepreneurship requires entrepreneurial training. Entrepreneurship education is a learning process in the direction of the business. Entrepreneur women need entrepreneurial training for entrepreneurial motivation and intention. The consequences of entrepreneurship education in women's entrepreneurship dimensions are taken from their effectiveness at the community level. Some studies have claimed that education plays an important role in the process of creating entrepreneurial activity (Hannon, 2006), diversity, complexity, and homogeneity (Anderson and Jack, 2008), development of knowledge, and the process of consolidation and growth of a successful business (Pakham et al., 2010).

The entrepreneurship education literature has given importance to the effectiveness of entrepreneurs in social contexts and at the community level. In other words, entrepreneurship education studies have two main topics: (1) content (2) effectiveness. The content of entrepreneurial education includes intention, attitude, behavior, mentality, and effectiveness includes consequences at the community level.

The combination of content and effectiveness in entrepreneurial education forms entrepreneurship training classes and courses that lead to effectiveness at the community level.

Education and entrepreneur women are two distinct aspects that unite by the entrepreneurial approach. In other words, the education of entrepreneurial women is a behavioral, attitudinal and social paradigm that leads to effectiveness at the community level. The behavioral, attitudinal, and social paradigm based on entrepreneur women requires compiled training and entrepreneurial courses at one time.

In this study, the theoretical model of Bullough et al. (2015) is used to evaluate the entrepreneur women based on entrepreneurship education. This study provides a framework for designing and implementing an effective program for entrepreneur women. The central factors framework, that needs to consider access to program goals, are program elements, human dimensions, contextual environment, and financial resources.

Bullough et al. (2015) in the study addresses the development of leader women through entrepreneurship education and teaching. It is based on the development of early experience with entrepreneurship education and training programs for women through investigating the literature of women's entrepreneurship and leadership as it is entrepreneurship education and teaching. The researcher provides a framework for designing and implementing an effective program for women. The central factors framework, that need to consider access to program goals are program elements, human dimensions, contextual environment, and financial resources. Women's entrepreneurial education programs are the process of program content, human dimensions, contextual environment, and financial resources. Such a process leads to the emergence of entrepreneurial characteristics among women.

### 3.1. Research Conceptual Model

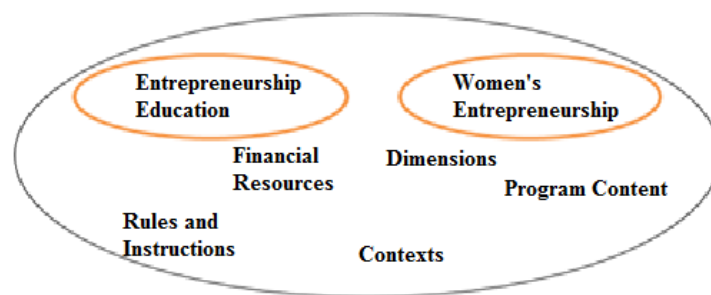


Figure 1. Research Conceptual Model

## 4. Research Methodology

The present research is applied in terms of goal, and it is quantitative and qualitative in terms of method, and it is mixed-exploratory in terms of approach. The population under study in the qualitative section consists of academic professors, managers and educational experts with sufficient and successful experiences. The number of the population under study is uncertain and the researcher determines the population under study by using the educational field. In this stage, sampling continued by snowball method until reaching theoretical saturation. In other words, conducting the interview continued to the extent that the newer interviews did not add a new concept to the prior knowledge obtained from previous interviews. Hence, conducting the interview with the experts was stopped after doing 20 interviews. The qualitative data collection has been conducted through in-depth interviews with open-ended questions. The achievement of the validity or reliability in this section was performed through the researcher's long-term involvement with the research environment and his continuous observations in the research environment, including trusting in the research subject, learning the culture of that environment, and controlling misunderstandings arising from the interventions of researcher or experts. The qualitative data analysis obtained from the interviews has been conducted using coding with the open and axial approach, and MAXQDA 2018 software has been used for this purpose. Having specified the dimensions and components of the model using semi-structured interviews in the qualitative section, the analysis of this part of the data and the obtained results provide the framework and content of the research questionnaire. The population under study in the quantitative section consists of all of the employees of the Ministry of Cooperative, Labor and Social Welfare with the bachelor education or higher, the total number of whom are 1,200 people. In this section, the sample size was calculated 291 persons in accordance with the Cochran formula. To ensure the proper return of the questionnaires, the questionnaire was distributed among 300 people by simple random method. The data collection tool in the quantitative section has been made using a researcher-made questionnaire based on the concepts stated in the research literature along with the results obtained from qualitative data analysis. In this research, content validity is used to estimate the validity of the questionnaire. For this purpose, for the questionnaire items, the two CVI and CVR indices are calculated using experts' opinions. The CVI values based on the opinions of 12 experts for the questionnaire items showed that

9 items have not been confirmed in accordance with the CVI index. In other words, according to the experts these items need to be reviewed. Therefore, the necessary reforms were considered for them. For the CVR index, considering that the number of experts is 12 people, the threshold limit for confirming or rejecting the questionnaire items is 0.56. In a way that if the value of the CVR index for an item is higher than 0.56 that item is confirmed. Accordingly, 42 out of 65 items were confirmed. In this questionnaire, for the components of women's entrepreneurship education prerequisites (10 items), women's entrepreneurship education models (9 items), women's entrepreneurship education characteristics (7 items), women's individual characteristics for entrepreneurship education (9 items), the cultural components of women's entrepreneurship education (3 items), legal components (4 items) were adjusted. Cronbach's alpha coefficient of the whole questionnaire has been determined equal to 0.792 using data analysis obtained from 30 questionnaires through SPSS software, that as it is higher than 0.7., so it can be said that the research questionnaire questions have appropriate and desirable reliability. The research model analysis has been performed using a confirmatory factor analysis approach by applying the PLS technique and smart PLS 2.0 software.

## 5. Research Findings

At first, the analysis of the interviews is presented using the coding of the concepts existing in the interviews.

### 5.1.Open Coding

In this research, sampling was done to the extent of discovering concepts in the open situation, and then the concepts have been classified based on the relationship with similar topics. According to Table 1, the results obtained from the open coding of the collected qualitative data using the interview tool showed that 42 open codes have been identified from 398 concepts.

**Table 1. Results Obtained from Open Coding**

No.	Open Coding	Frequency
1.	Women's participation	10
2.	Educational Planning	12
3.	Government support	10
4.	Identifying capacities	17
5.	Facilitating and expediting the process of license issuing	6
6.	Providing facilities and allocation of credits	14
7.	Strengthening women's skills	10
8.	Need assessment	13
9.	Empowering women	21
10.	Education	33
11.	Networking	14
12.	Practical and applied education	8
13.	Education-based on active learning	5
14.	Visual education	5
15.	SYIB model	3
16.	KAB model	4
17.	Creating working teams and group work	3
18.	Participatory model	5
19.	Learning skill	6
20.	Successful international standards	19
21.	Entrepreneurial skills education	4
22.	Compiling the content	7
23.	Localization	7

24.	Proper quality of information and content	8
25.	Coordination of education with community need	5
26.	Using the experiences of entrepreneur women	5
27.	Creativity and innovation	19
28.	Recognizing the opportunity	11
29.	Risk-taking	9
30.	Seeking independence	11
31.	Self-confidence	13
32.	Communication skills	9
33.	Professional skills	5
34.	Accepting responsibility	4
35.	Self-belief	5
36.	Developing women's entrepreneurship culture	17
37.	Holding seminars and conferences	11
38.	Raising entrepreneur children	11
39.	The legal requirement to comply with international standards	4
40.	Modifying some rules	6
41.	Setting up protection rules for women	5
42.	Enforcement of the protocols	4

## 5.2.Axial Coding

According to Table 2, it is observed that 42 open codes have been classified into 6 categories. In the following, the identified categories have been investigated.

**Table 2. Results Obtained from Axial Coding**

Category	Open Code	Frequency
Women's Entrepreneurship Education Prerequisites	Women's participation	10
	Educational planning	12
	Government support	10
	Identifying capacities	17
	Facilitating and expediting the process of license issuing	6
	Providing facilities and allocation of credits	14
	Strengthening women's skills	10
	Need assessment	13
	Empowering women	21
	Education	33
Women's Entrepreneurship Education Models	Networking	14
	Practical and applied education	8
	Education-based on active learning	5
	Visual education	5
	SYIB model	3
	KAB model	4
	Creating working teams and group work	3
	Participatory model	5
	Learning skill	6
	Successful international standards	19

Characteristics of Women's Entrepreneurship Education	Entrepreneurial skills education	4
	Compiling the content	7
	Localization	7
	Proper quality of information and content	8
	Coordination of education with community need	5
	Using the experiences of entrepreneur women	5
Individual Characteristics of Women's for Entrepreneurship Education	Creativity and innovation	19
	Recognizing the opportunity	11
	Risk-taking	9
	Seeking independence	11
	Self-confidence	13
	Communication skills	9
	Professional skills	5
	Accepting responsibility	4
	Self-belief	5
Cultural Components	Developing women's entrepreneurship culture	17
	Holding seminars and conferences	11
	Raising entrepreneur children	11
Legal Components	The legal requirement to comply with international standards	4
	Modifying some rules	6
	Setting up protection rules for women	5
	Enforcement of the protocols	4

It is observed in Figure 2 that from a total of 398 concepts, 146 concepts are related to the dimension of "women's entrepreneurship education prerequisites", 53 concepts are related to the dimension of "women entrepreneurship education models", 55 concepts are related to the dimension "women's entrepreneurship education characteristics" 86 concepts are related to the dimension of "women's individual characteristics for entrepreneurship education", 39 concepts are related to the dimension of "cultural component", and 19 concepts were related to the dimension of "legal component".

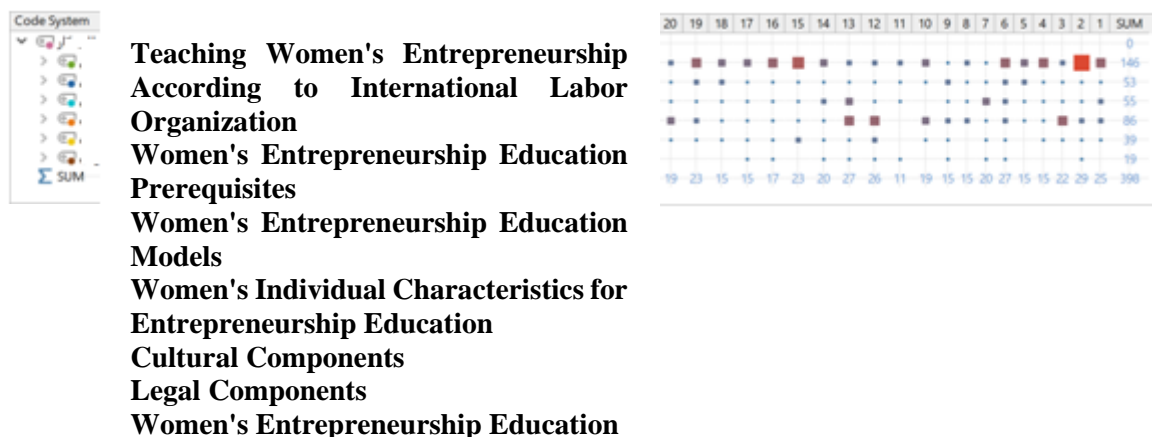


Figure 2. Overview of Interviewees' Opinions about Categories

### 5.3. Convergent Validity



According to Table 3, the value of Average Variance Extracted (AVE) is always higher than 0.5, and also the composite reliability value is obtained a value higher than 0.7 in all cases, which is higher than the value of Average Variance Extracted (AVE); therefore, the convergent validity of the model is confirmed.

**Table 3. Convergent Validity of the Research Model**

No.	Variable	AVE	CR
1.	Women's entrepreneurship education prerequisites	0.516	0.914
2.	Women's entrepreneurship education methods	0.526	0.909
3.	Characteristics of women's entrepreneurship education	0.502	0.876
4.	Individual characteristics of women for entrepreneurship education	0.528	0.909
5.	Cultural components	0.506	0.755
6.	Legal components	0.533	0.82

#### 5.4.Divergent Validity

As is clear in Table 4, in each column of the table, the AVE square of each construct is higher than the other numbers existing in that column (that is the correlation coefficients of that construct with other constructs). Therefore, the divergent validity of the research model dimensions is confirmed.

**Table 4. Divergent Validity of the Dimensions of Research Model**

No.	Variable	1	2	3	4	5	6
1.	Cultural components	0.711					
2.	Women's entrepreneurship education methods	0.353	0.725				
3.	Legal components	0.479	0.277	0.73			
4.	Women's entrepreneurship education prerequisites	0.485	0.401	0.342	0.718		
5.	Characteristics of women's entrepreneurship education	0.422	0.425	0.316	0.443	0.709	
6.	Individual characteristics of women for entrepreneurship education	0.543	0.432	0.36	0.399	0.473	0.727

#### 5.5.Implementing Women's Entrepreneurship Education Model Based on the International Labor Organization Standards in Iran

Figures 3 and 4 present the results of the second-order confirmatory factor analysis including path coefficients and t-statistic values, which are investigated below.

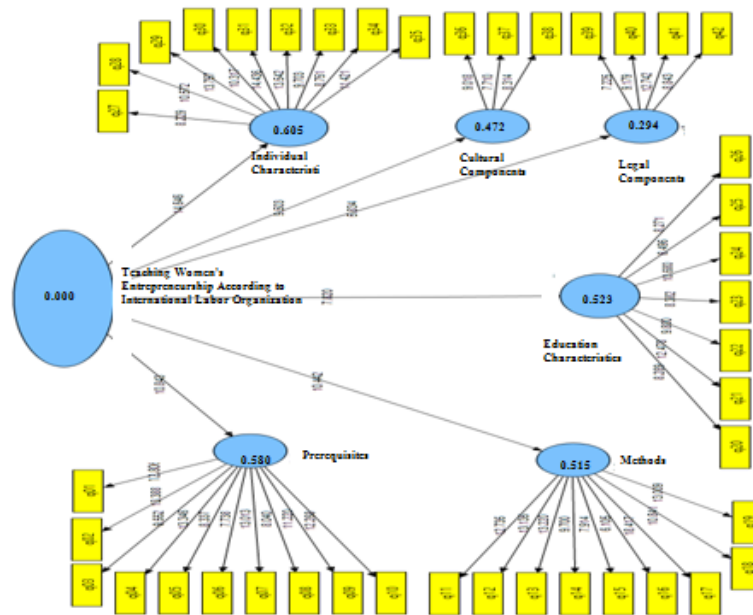


Figure 3. Research Model along with Factor Loads

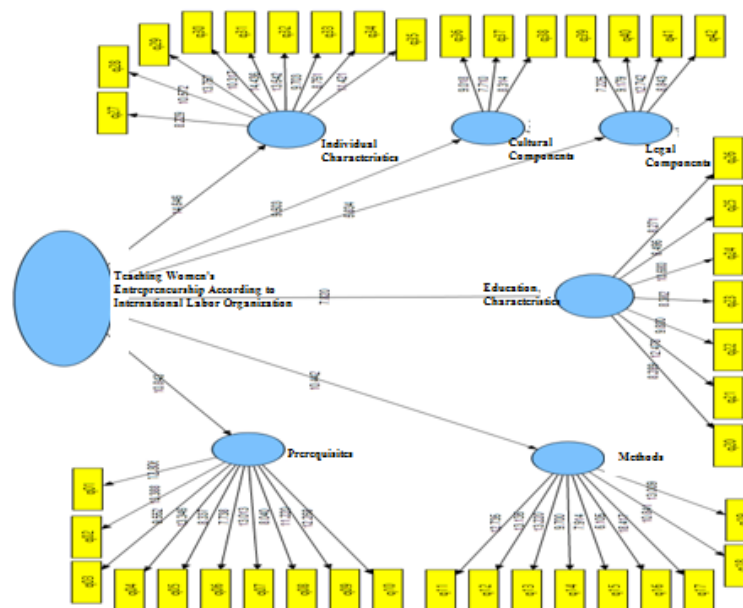


Figure 4. Research Model along with Significant Values

According to Table 5, it is observed that the t-statistic value for all model dimensions is higher than 1.96, thus all of these dimensions in the model are significant. Among these three dimensions, the women's individual characteristics for entrepreneurship education with a factor load of 0.778 had the highest impact on the women's entrepreneurship education model. Afterward, the dimension of women's entrepreneurship education prerequisites with a factor load of 0.762, women's entrepreneurship education characteristics with a factor load of 0.723, women's entrepreneurship education methods with a factor load of 0.718, cultural components with a factor load of 0.687, and

legal components with a factor load of 0.542 are significant in the model. The components of these dimensions are investigated below.

**Table 5. Results Obtained from Factor Analysis for the Dimensions of Women's Entrepreneurship Education Model Based on the International Labor Organization Standards**

No.	Dimensions	Factor Load	T Statistics
1.	Women's entrepreneurship education prerequisites	0.762	10.843
2.	Women's entrepreneurship education methods	0.718	10.442
3.	Characteristics of women's entrepreneurship education	0.723	7.820
4.	Women's individual characteristics for entrepreneurship education	0.778	14.646
5.	Cultural components	0.687	9.503
6.	Legal components	0.542	5.834

**5.5.1. Women's Entrepreneurship Education Prerequisites:** As it is observed in Table 6, the t-statistic values for all items of women's entrepreneurship education prerequisites are higher than 1.96. Therefore, according to this table, women's participation with the factor load of 0.724, educational planning with the factor load of 0.774, government support with the factor load of 0.695, identifying capacities with the factor load of 0.774, facilitating and expediting the process of license issuing with the factor load of 0.655, providing facilities and credits allocation with the factor load of 0.662, strengthening women's skills with the factor load of 0.759, need assessment with the factor load of 0.644, empowerment of women with the factor load of 0.743, education with the factor load of 0.736 in measuring the dimension of women's entrepreneurial education prerequisites are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 6. Confirmatory Factor Analysis Results for Women's Entrepreneurship Education Prerequisites Items**

No.	Item	Factor Load	T Statistics
1.	Women's participation	0.724	12.806
2.	Educational planning	0.774	13.388
3.	Government support	0.695	9.552
4.	Identifying capacities	0.774	13.346
5.	Facilitate and expedite the process of license issuing	0.655	8.337
6.	Providing facilities and credits allocation	0.662	7.738
7.	Strengthening women's skills	0.759	13.013
8.	Need assessment	0.644	8.040
9.	Empowering women	0.743	11.22
10.	Education	0.736	12.268

**5.5.2. Women Entrepreneurship Education Methods:** As it is observed in Table 7, the t-statistic values for all items of women's entrepreneurship education methods dimension are higher than 1.96. Therefore, according to this table, networking with the factor load of 0.728, practical and applied education with the factor load of 0.759, education based on active learning with the factor load of 0.773, visual education with the factor load of 0.659, SYIB model with the factor load of 0.684, KAB model with the factor load of 0.641, creating working teams and group work with the factor load of 0.801, participatory model with the factor load of 0.718, and learning skill with the factor load of 0.748 in

measuring women's entrepreneurship education methods are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 7. Confirmatory Factor Analysis Results for Women's Entrepreneurship Education Methods Items**

No.	Item	Factor Load	T Statistics
11.	Networking	0.728	12.735
12.	Practical and applied education	0.759	13.135
13.	Education-based on active learning	0.773	13.22
14.	Visual education	0.659	9.700
15.	SYIB model	0.684	7.914
16.	KAB model	0.641	6.105
17.	Creating working teams and group work	0.801	18.417
18.	Participatory model	0.718	10.841
19.	Learning skills	0.748	13.009

**5.5.3. Women's Entrepreneurship Education Characteristics:** As it is observed in Table 8, the t-statistic values for all items of women's entrepreneurship education characteristics dimension are higher than 1.96. Therefore, according to this table, successful international standards with the factor load of 0.704, teaching entrepreneurship skills with the factor load of 0.746, compiling the content with the factor load of 0.740, localization with the factor load of 0.649, appropriate quality of information and content with the factor load of 0.724, coordination of education with community need with the factor load of 0.722, and the use of experiences of entrepreneur women with the factor load of 0.672 in measuring the dimension of women's entrepreneurship education characteristics are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 8. Confirmatory Factor Analysis Results for Women's Entrepreneurship Education Characteristics Items**

No.	Item	Factor Load	T Statistics
20.	Successful international standards	0.704	8.289
21.	Entrepreneurial skills education	0.746	12.478
22.	Compiling the content	0.740	9.800
23.	Localization	0.649	8.382
24.	Proper quality of information and content	0.724	10.680
25.	Coordination of education with community need	0.722	8.496
26.	Using the experiences of entrepreneur women	0.672	8.271

**5.5.4. Women's Individual Characteristics for Entrepreneurship Education:** As it is observed in Table 9, the t-statistic values for all items of women's individual characteristics for entrepreneurship education are higher than 1.96. Therefore, according to this table, creativity and innovation with the factor load of 0.662, recognizing opportunity with the factor load of 0.716, risk-taking with the factor load of 0.745, seeking independence with the factor load of 0.707, self-confidence with the factor load of 0.792, communication skills with the factor load of 0.751, professional skills with the factor load of 0.700, accepting responsibility with the factor load of 0.709, and self-belief with the factor load of 0.750 in measuring women's individual characteristics for entrepreneurship education are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 9. Confirmatory Factor Analysis Results for Women's Individual Characteristics for Entrepreneurship Education Items**

No.	Item	Factor Load	T Statistics
27.	Creativity and innovation	0.662	8.229
28.	Recognizing opportunity	0.716	10.572
29.	Risk-taking	0.745	13.757
30.	Seeking independence	0.707	10.317
31.	Self confidence	0.792	14.436
32.	Communication skills	0.751	13.542
33.	Professional skills	0.700	9.703
34.	Accepting responsibility	0.709	8.751
35.	Self-belief	0.750	11.421

**5.5.5. Cultural Components:** As it is observed in Table 10, the t-statistic values for all items of the cultural components for entrepreneurship education dimension are higher than 1.96. Therefore, according to this table, developing women's entrepreneurship culture with a factor load of 0.697, holding seminars and conferences with a factor load of 0.728, and raising entrepreneur children with a factor load of 0.709 in measuring the cultural components for entrepreneurship education are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 10. Confirmatory Factor Analysis Results for Cultural Components for Entrepreneurship Education Items**

No.	Item	Factor Load	T Statistics
36.	Developing women's entrepreneurship culture	0.697	9.018
37.	Holding seminars and conferences	0.728	7.710
38.	Raising entrepreneur children	0.709	8.314

**5.5.6. Legal Components:** As it is observed in Table 11, the t-statistic values for all items of the legal components for entrepreneurship education dimension are higher than 1.96. Therefore, according to this table, there is a legal requirement to comply with international standards with a factor load of 0.690, modifying some rules with a factor load of 0.766, setting up protection rules for women with a factor load of 0.769, and the enforcement of the protocols with a factor load of 0.690 in measuring legal components for entrepreneurship education are significantly effective. Since all these factor loads are higher than 0.5, hence all these items have a strong influence on the model.

**Table 11. Confirmatory Factor Analysis Results for Legal Component for Entrepreneurship Education Items**

No.	Item	Factor Load	T Statistics
39.	The legal requirement to comply with international standards	0.690	7.225
40.	Modifying some rules	0.766	9.179
41.	Setting up protection rules for women	0.769	12.742
42.	Enforcement of the protocols	0.690	8.843

**5.5.7. Model Validation:** Table 12 shows the determination coefficient values ( $R^2$ ) for the dimensions of women's entrepreneurship education model. Regarding that all of these values are close to 1, it is therefore concluded that in this model, the dependent variables explain a high percentage of independent variables.

**Table 12. Determination Coefficient Values for the Research Model**

No.	Variable	R <sup>2</sup>
1.	Women's entrepreneurship education prerequisites	0.580
2.	Women's entrepreneurship education methods	0.515
3.	Characteristics of women's entrepreneurship education	0.523
4.	Women's individual characteristics for entrepreneurship education	0.605
5.	Cultural components	0.572
6.	Legal components	0.594

In this research, the GOF index has been used to investigate the research model's fitness. This index is obtained from the following formula:

$$GOF = \sqrt{(communality) \times (R\ square)} \quad (1)$$

For this model, the model goodness of fit (GOF) index is equal to 0.541, and since its value is higher than 0.36, the model goodness of fit is confirmed. Table 13 presents the calculations of the model goodness of fit (GOF).

**Table 13. Calculation of the Model Goodness of Fit (GOF)**

Variable	Communality	R <sup>2</sup>
Women's entrepreneurship education prerequisites	0.516	0.580
Women's entrepreneurship education methods	0.526	0.515
Characteristics of women's entrepreneurship education	0.502	0.523
Women's individual characteristics for entrepreneurship education	0.528	0.605
Cultural components	0.506	0.572
Legal components	0.533	0.594
Mean	0.565	0.518
GOF	0.541	

According to Table 14, it is observed that all the values of the Q<sup>2</sup> index are higher than 0.35, and thus it is concluded that the predictive power of all these constructs is strong. So, in general, it can be said that the model constructs have the goodness of fit.

**Table 14. Q<sup>2</sup> Index Values for Model Dimensions and Components**

No.	Variable	Q <sup>2</sup>
1.	Women's entrepreneurship education prerequisites	0.516
2.	Women's entrepreneurship education methods	0.526
3.	Characteristics of women's entrepreneurship education	0.502
4.	Women's individual characteristics for entrepreneurship education	0.528
5.	Cultural components	0.506
6.	Legal components	0.533

## 6. Discussion and Conclusion

In this research, in order to present a model of women's entrepreneurship education based on the International Labor Organization (ILO) standards in Iran, 20 experts in the field of entrepreneurship were interviewed. The results of qualitative and quantitative analyses showed that the model of women's entrepreneurship education according to the International Labor Organization (ILO) standards in Iran

consists of 6 dimensions that ranking was performed based on the values of factor loads obtained from the second-order confirmatory factor analysis. Regarding these results, it can be said that the most important factor in women's entrepreneurship education is their individual characteristics. Afterward, the prerequisites and contexts of women's entrepreneurship education are in the second rank of importance. The characteristics and methods of education are respectively in the third and fourth ranks of importance. Finally, the cultural and legal components are in the fifth and sixth ranks, and although they are located at the end of this ranking, this does not mean their low importance. Rather, based on the results of factor analysis, these two dimensions, like other dimensions, have a strong influence on the model. The dimensions of the model are described in the following.

The analysis results showed that one of the effective dimensions in women's entrepreneurship education is the **"Women's Individual Characteristics"** which includes 9 components. Education should be given to a person who has minimal traits in respect to personality. Accordingly, the individual characteristics required for entrepreneurship education are creativity, innovation, self-confidence, seeking independence, recognizing the opportunity, risk-taking, communication skills, professional skills, self-belief, and accepting responsibility. In this regard, it is essential to remember the point that being interested is not just a guarantee to be successful. People interested in entrepreneurship topics are not necessarily an entrepreneur. There are even prominent professors in the educational fields who have had a very effective role in nurturing entrepreneurs, but they are not entrepreneurs themselves. Regarding the women of our community, this point is exacerbated due to their limitations and characteristics.

The analysis results showed that another effective dimension in women's entrepreneurship education is the **"Women's Entrepreneurship Education Prerequisites"** which includes 10 components. Most organizations and institutions of the country are at the beginning of entrepreneurship education way and this point is required to be predicted purposefully from the perspective of all organizations related to their mission type. Accordingly, the required prerequisites of women's entrepreneurship education are repeated training, women's empowerment, identifying capacities, providing facilities and credit allocation, need assessment, educational planning, women's participation, government support, strengthening women's skills, and facilitating and expediting the process of license issuing.

The analysis results showed that another dimension affecting women's entrepreneurship education is the **"Characteristics of Women's Entrepreneurship Education"** which includes 7 components. Accordingly, the characteristics required for women's entrepreneurship education are the use of successful international standards, appropriate quality of information and training content, localization of education, compiling the content, coordination of education with community need, using entrepreneur women's experiences, and entrepreneurship skills education.

As each one of the entrepreneurship education programs is designed for a specific group with specific goal and the participants have different knowledge, insight and skill requirements in various courses, definitely, a specific educational course is required for various individuals and groups in terms of professional and scientific dimensions, so that the designed goals are realized in these courses among participants. Therefore, educational courses can be classified at two general and specialized levels. The important point in this regard is that the lecturer of these courses should have some minimums. For example, at least he/she should have adequate risk-taking and have an entrepreneurship case to be able to teach others the work technique.

The analysis results showed that another dimension affecting women's entrepreneurship education is **"Women's Entrepreneurship Education Methods"** which includes 9 components. Accordingly, appropriate methods for women's entrepreneurship education include networking, applied and practical education, learning skill, visual training, participatory model, education based on active learning, KAB model, SYIB model, and creating working teams and group work.

It should be mentioned that the SYIB education model has been presented by the International Labor Organization and has been implemented in more than 60 developing countries. The mentioned program

is a training and counseling program designed for education and training entrepreneurs in small units including industrial, service and business units.

In general, a combination of these methods can be more effective for women's entrepreneurship education, depending on age and indigenous conditions. Global experiences have indicated the point that the formation of professional clusters and networks has a significant role in creating synergy and entrepreneurship education success. Networking can help to transfer technical knowledge and common experiences. In other words, it is better to do enough studies to design up-to-date training and to consider networking as one of the main pillars of entrepreneurship development.

The analysis results showed that another dimension affecting women's entrepreneurship education is the **"Cultural Components of Women's Entrepreneurship Education"** which includes three components. Accordingly, the cultural components for women's entrepreneurship education include the development of women's entrepreneurship culture, holding seminars and conferences, and raising entrepreneur children. Therefore, cultural considerations and understanding the culture of each region and habitat are particularly important for planning women's entrepreneurship education, because, in some regions and cultures, specific beliefs and local customs can create unpredictable challenges in this way.

The analysis results showed that another dimension affecting women's entrepreneurship education is the **"Legal Components of Women's Entrepreneurship Education"** which includes 4 components. Accordingly, the legal components for women's entrepreneurship education include modifying some rules, setting up protection rules for women, the legal requirement to comply with international standards, and the enforcement of the protocols. The rules of developing countries are mainly set up by modeling from the rules of developed countries and with the aim of sustainable development. Therefore, social culture in various fields is not in line with setting up the rules, and it seems that social rules and culture-building are concurrently among the necessities for creating suitable contexts for entrepreneur women.

## 7. Applied Suggestions

With regard to the results obtained from this research, the following suggestions are presented for the development of women's entrepreneurship education based on the International Labor Organization (ILO) standards:

1. Women in the field of entrepreneurship face numerous challenges due to the relative patriarchy of the community that social culture-building and modifying some of the cumbersome rules will improve the gendered look in the economic fields of entrepreneurship. Therefore, it is suggested that the government, by material and spiritual support, should further flourish entrepreneur women more than before.
2. By holding educational workshops, universities should identify women who have entrepreneurship characteristics (such as risk-taking, creativity, and innovation, and so on) and encourage them to move on the path of entrepreneurship.
3. The government should oblige the relevant organizations to offer necessary facilities and the allocation of credits to promote women's entrepreneurship education in accordance with the International Labor Organization (ILO) standards.
4. The government, by identifying the capacities and based on conducted need assessments, should have proper planning for women's entrepreneurship education according to the International Labor Organization (ILO) standards.
5. The government should perform the necessary measures to facilitate and expedite the process of issuing the necessary licenses for holding women's entrepreneurship education courses.
6. Training content of women's entrepreneurship education courses should be designed according to the successful international standards, and the topics presented should be applied and have proper quality. Also, the experiences of entrepreneur women should be used in creating content.



7. Women's entrepreneurship education courses should be localized for any area of the country. In other words, these courses should be designed for each city in accordance with the culture and habits of the people of that city, and education should be coordinated with the needs of the community.
8. The education and training are suggested to insert entrepreneurship education into the curriculum of schools and to nurture creativity in this field from the early ages among the individuals.
9. Through producing appropriate programs, the media should address culture-building for entrepreneur women, so that the necessary contexts are provided for the development of women's entrepreneurship education.
10. Responsible organizations should take the legal requirements for compliance with the international standards and the enforcement of the protocols.
11. Holding events, seminars, and conferences for the familiarity and linking entrepreneurs with each other and with policymakers for networking.

## References

- 1) Arasti, Zahra, Ghodousi, Samira, and Bagheri, Afsaneh (Winter 2016), "The Effect of Entrepreneurship Education through Storytelling Method on Entrepreneurial Attitude of Elementary School Students", *Scientific-Research Quarterly Journal of Entrepreneurship Development*, Article 1, Vol. 9, No. 4, pp. 593-612.
- 2) Rostamali Zadeh, Valiollah, and Ali Jomeh Zadeh, Parvin (Spring 2018), "Investigating the Factors Affecting the Success of Entrepreneur Women in Tehran", *Quarterly Journal of Social Development*, Vol. 12, No. 3.
- 3) Sharif Zadeh, Mohammad Sharif, and Abdullah Zadeh, Gholam Hossein (Spring 2015), "The Components of Entrepreneurship Education Development in the Higher Education System of Agriculture", *Quarterly Journal of Agricultural Education Management Research*, No. 32.
- 4) Saber, Firoozeh (Summer 2002), "Developing Women's Entrepreneurship in Iran: Solutions for Empowering Women in Respect of Economic, Social and Political Equality in Iran", *Industrial Management Organization*
- 5) Azizinejad, Bahareh, and Bagheri, Fatemeh (Summer 2012), "Effective Teaching Methods in Entrepreneurship Education" *Conference on Entrepreneurship Ideas and New Business Opportunities*.
- 6) Golred, Parvaneh (Spring 2005), "Factors Affecting Iranian Women's Entrepreneurship Development", *Quarterly Journal of Women's in Development and Politics (Women's Research)*, No. 1.
- 7) Golred, Parvaneh (Summer 2009), "Families and Solutions for the Entrepreneurship Development of Iranian Women", *Sixth Article on Women in Development and Politics*, Vol. 7, No. 2.
- 8) Golred, Parvaneh, Asgari, Elaheh, Hosseini, Maryam, and Dehghan Najmabadi, Amer (Winter 2017), "The Role of Entrepreneur Women's Social Networks on Job Motivation: The Mediating Role of Entrepreneurial Consciousness", *Scientific Research Quarterly Journal of Woman and Culture*, Vol. 9, No. 34, pp. 7-20.
- 9) Momayez, Ayatollah, Ghasemi, Sayyedah Atefeh, and Ghasemi, Sayyedah Fatemeh (Summer 2013), "Investigating Factors Affecting Women's Entrepreneurship Development", *Technology Growth, Quarterly Journal of Parks and Growth Centers*, Vol. 9, No. 35.
- 10) Morteza Nejad, Niloufar, Attaran, Mohammad, Hosseini Khah, Ali, and Abbasi, Efat (Spring and Summer 2017), "Explaining the Elements of Entrepreneurship Curriculum in General Education Course (Synthesis Research)", *Quarterly Journal of Theory and Practice in Curriculum*, Vol. 5, No. 9, pp. 105-142.
- 11) Movahedi, Reza, and Suleimanian Broujeni, Jalileh (Fall and Winter 2016), "Investigating Effective Educational Practices in the Entrepreneurship Development of Rural Women", *Journal of Entrepreneurship Strategies in Agriculture*, Vol. 3, No. 6.
- 12) Niazkar, Fatemeh and Arab Moghaddam, Narges (Spring and Summer 2010), "Investigating Academic Entrepreneur Women's Viewpoint Regarding Barriers to Entrepreneurship Development among Women", *Journal of Women's Studies*, Vol. 4, No. 1.