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Designing a Model that Female Entrepreneurs Face with Higher Education Centers in Tehran Province

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Abstract: The present study chiefly aims to design the model of challenges females entrepreneurs are face with higher education centers in Tehran province. To achieve the major objective and on the basis of the designed conceptual model, examination of the participants' attitudes about the impact of components of quality challenges, entrepreneurship instructors, training methods, financial supports, individual factors, legal factors and cultural factors on females entrepreneurs development at the higher education centers in Tehran province were addressed as the minor purposes. with regard to the challenges the Iranian universities are facing with, besides a questionnaires were distributed among 100 female students studying entrepreneurship at University of Tehran as well as female students participated in training workshops of entrepreneurship skills at Al-Zahra university, the items of challenges the women entrepreneurship development are facing with were measured at the higher education centers of Tehran province. After the data analysis, the obtained results were reported in terms of rate of impact per one unit increase in each challenge over decrease in women entrepreneurship development. To test the research hypotheses (challenges) affecting the purpose, the bivariate regression test was adopted and the level of significance for each challenge was determined. Additionally, for testing the conceptual model, the structural equation modeling was used via the LISREL software. Appropriateness of the model and compliance with the empirical data then were attested.

Keywords: Challenge, entrepreneurship development, higher education centers of Tehran, women entrepreneurship

INTRODUCTION

One important objective and duty of the higher education system in every country is to educate skilled and efficient workers are demanded by society. Along with this global purpose, although Iranian universities and higher education institutions have taken some steps, unfortunately due to inconsistency of academic curriculum with the society needs, the graduates lack such skills and efficiency to be employed in related positions. Since, their learning has no link to actual community needs.

On the other hand, increased population, extended number of universities and higher education centers, inefficiency in development and execution of economic development programs, absence of some comprehensive and holistic program for educating the skills workers are of the most crucial factors have been recognized today as "employment of higher education graduates". As a matter of fact, at present, unemployment is a complicated problem and despite the official endeavors to create job, Iran has been always faced with a bulk of unemployed graduates. The graduates have been educated after spending lots of money and time (Heydari, 2010).

Meanwhile, increase of educated women that occupy a considerable portion of active population and can be counted as an index for development and making opportunities for acceleration of the development process, yet this group of women have not achieved to a proper share in national economy. Moreover, inconsistency among labor market and education system in one hand and dearth of job or necessary facilities for breeding creative ideas on the other hand, have not relied the ground for enjoying from this abundant capacity. Thus, in this regard entrepreneurship can work as an apt strategy for solving some part of this national problem (Arasteh, 2007).

In fact, women entrepreneurship development causes innovation, promotion of technological level, increase of patents, production of technical knowledge, creation of jobs and producing and distribution of income in the society that consequently lead to increase of national wealth (Haji Ghorban, 2010).

Considering the role of women entrepreneurship in expansion of social and economic innovative activities in Iran, it is hoped that with much efforts universities deign and prepare curriculums are proper for educating skilled and entrepreneurial forces. As the most fundamental factor in the higher education

sustainability is to train efficient and professional human forces in order to satisfy the actual needs of society in different fields. A system that is capable enough to introduce students as innovators, scientists, job experts and even inventors (Heydari, 2010).

Accordingly, the problem in the current study is to design the model of challenges the women entrepreneurship development are facing with at the higher education center of Tehran province. Since analyzing the current status of the women entrepreneurship development at the higher education centers of Tehran province shed light on the future vision and provides a few proper strategies for dealing with the coming challenges.

THEORETICAL FRAMEWORK AND LITERATURE

Entrepreneurship: Entrepreneurship is a process within which the entrepreneur establishes new businesses opportunities, new and innovative organization through his/her innovative ideas besides identification of mew opportunities and mobilizing resources. This process then complies with taking risks that ends to introduction of a new product or service to society.

Women entrepreneurs: Women entrepreneurs are those who welcome financial risk in order to initiate a business and with innovation they produce new products and expand the new products to prevail over competitors.

Women entrepreneurship development: In the present study, omen entrepreneurship development is regarded as one of administrative strategies for achieving socioeconomic development. Since success of educated women entrepreneurship development in societies not only brings economic profits, but also creates some socio-cultural benefits as well. Accordingly, in the development program it is aimed to along with increase of women's participation in the labor market, women have easier conditions for entrepreneurship. Through this, women can create more business opportunities and contribute to eradicate poverty and unemployment.

Entrepreneurship challenges: They consist of some specific problems raised from based on conditions the women entrepreneurship development may have at the higher education centers.

In the recent decades, entrpriunersialism and holding various training entrepreneurship workshops have been considerably doubled all around the globe. The complicated nature of these training, however, has faced different countries like Iran with numerous challenges. Therefore, in this regard in addition to reviewing the history of entrepreneurship training and development in the world, the most salient obstacles

before training and development of entrepreneurship in ran will be discussed. In following, Naeej and Zali (2007) explored six challenges the Iranian universities are encountering. They are as below:

- Quality of entrepreneurship instructor challenge: Since the subject of entrepreneurship is a very technical and interdisciplinary debate, normally instructors who both have the theoretical knowledge of entrepreneurship and are familiar with its practical aspects in firms and organization have to teach it. Not having such experienced and knowledge entrepreneurship instructors is one the fundamental challenges.
- Training methods of entrepreneurship challenge: At present, to teach entrepreneurship, the theoretical and practical dimensions are globally considered and are performed either in separate forms or joint and simultaneous forms with different training methods. Though, at Iranian universities only theoretical aspects and based on the speech method is being trained.
- Effectiveness of training methods challenge: In order to determine the effectiveness of entrepreneurship training methods, certain standards and criteria including objectives, content, structure, competence and skill of the instructor are used. Despite of such criteria for measurement of the effectiveness of entrepreneurship training methods, less attention is given to these parameters in Iran in general and at universities in specific.
- Training instruments related to entrepreneurship challenge: In addition to using different training methods, training instruments have been also added. In fact, to teach entrepreneurship as efficient as possible, all technological, material and training advances serve training of entrepreneurship. This issue has drawn specific attention.
- Material and spiritual support of entrepreneurship students' challenge: At Iranian universities some conditions need to be created that students with entrepreneurial competence get materially and spiritually supported. This motivates them after graduation to create new jobs and avoid unemployment.
- Students' learning needs challenge: Students on entrepreneurship indicate a few factors affect the entrepreneurs 'behavior that can be a sort of challenge for entrepreneurs. These factors include:
- o Organizational dimension
- o Individual dimension
- Environmental dimension

Research background: According to Aldrich (1989), the necessity for successful women entrepreneurship is their access to five major resources as information, capital, market, networks and validity.

Anderson *et al.* (1998) showed in their investigations that through holding classism training workshops, giving speech, exhibitions, individual projects, practical methods, team work and local and case studies, the entrepreneurial concepts could be transferred or trained.

Hisrich and Brush (2000) in a study naming "women entrepreneurship: management skills and employment problems" that aimed to explore the effective factors on performance of the female entrepreneurs concluded that due to men and women difference, the impact of individual factors (peculiarities and personal merits), organizational factors (the organization's features) and industrial factors (the industrial environment) are of the most influential women entrepreneurs factors on performance.

Bennett and Dann (2000) in a research titling "experiences of Australian women entrepreneurs" reviewed the female entrepreneurs in Australia. Their research results show that family and friends affect the role patterns to become an entrepreneur.

Demartino and Barbato (2003) worked on difference between male and female entrepreneurs. They realized that entrepreneurship as a job can make some flexibility and balance other jobs fail to do.

Kuratko and Hodgetts (2004) carried out a research on theory, process and methods of entrepreneurship concluded that entrepreneurship encounters with challenges that some of them as challenge in devising research methodology for measurement of entrepreneurship effectiveness, challenge in quality of entrepreneurship instructors, challenge in agreeing with entrepreneurship training at faculties compared to business.

Global Entrepreneurship Monitor (GEM) (2006) in their studies evaluated entrepreneurship in the national scale. The GEM research results indicate that the economic activities of women and their willingness to entrepreneurial activities happen in two forms: in terms of necessity or based on opportunity that in the developed countries these activities are on the basis of opportunity and in the developing countries in terms of necessity.

Gürol and Astan (2006) conducted many comparative studies among entrepreneurs and ordinary people. They realized that need to achievement holds a meaningful correlation with entrepreneurship.

Nawaz (2009) in an investigation about the critical factors of women entrepreneurship development in Bangladesh found out that the most important challenges for women business are:

- Rules and regulations such as government policies and rules and banks policies
- Normative factors like social norms, availability of capital and market relevance

 Cognitive factors including training and access to information, knowledge of businesses, being trained for entrepreneurship and capacity of risk assessment. In this regard, two Iranian research have been done are presented in the following.

Nobil and Rahim Nejad (2011) in their investigations on the role of university in development and promotion of entrepreneurship identified the important obstacles before training of an entrepreneur as educational system failure, risk-taking, ignoring training when working, social-cultural obstacles, lack of proper trainings, lack of security for investment and lack of sufficient funding.

Ramazanian Pour (2008) research naming "the role of female-headed households in development of entrepreneurship" explored the women's needs for entering the entrepreneurship field. The research's findings show that the female-headed households require some trainings and support to get into the entrepreneurship field that seems vital for them. If these supports and plans are stopped for any reason, in short-time the society will pay much cost for social problems and disorders consequently.

METHODOLOGY

The present research inherently is a type of correlation study and seeks a practical purpose, it aims to find some strategies for solving or decreasing the challenges before women entrepreneurship development at the higher education centers. The obtained results will be helpful for managers, programmers, decision-makers and policy-makers in the higher education sector.

Thanks to the current research characteristics, the researcher can't control or manipulate the variables. Thus, only the present situation will be described and does attempt to specify the relationship between these variables. Therefore, this is a type of descriptive and non-experimental investigation. It is descriptive because it illustrates characteristics of women entrepreneur at the higher education centers of Tehran province and the researcher can't manipulate the variables. Also, because it examines the relationship between the variables, it is a correlation study.

The dependent variable is women entrepreneurship development at the higher education centers of Tehran province. The independent variables consist of quality of entrepreneurship instructor challenge, training methods challenge, training instruments challenge, financial support challenge, individual factors challenge legal factors challenge and cultural factors challenge.

Participants: Since the present research was conducted in Tehran province, therefore the participants were female students of the entrepreneurship major at

Table 1: Cronbach's alpha value

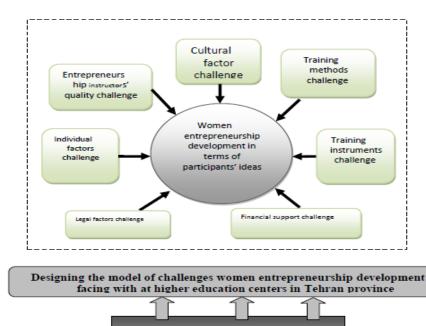
Different section of		Cronbach's
questionnaire	Number of items	alpha
Quality of instructors	8	0.772
Methods of entrepreneurship	12	0.777
education		
Educational tools related to	4	0.792
entrepreneurship		
Financial support	4	0.803
Individual factors	9	0.860
Legal factors	5	0.836
Cultural factors	8	0.822
Entrepreneurship development	11	0.903

university of Tehran as well as female students participated in the training workshops of the entrepreneurship skills a t Al-Zahra University with a total number of 100 female students. Because the population was limited the census method was used.

Therefore, to obtain the required data, all 100 participants were asked to fill in the surveys.

The general characteristics of participants include, 21% of the entrepreneurs aged younger than 22, 39% aged 23-25 and 37% aged older than 26. Considering the level of education, 17% of entrepreneurs had diploma and associate degrees, 27% bachelor of Art, 55% master of art and above. Taking into account the marital status, 66% of subjects were married. Reviewing the respondents' entrepreneurship or business records, 80% were inexperienced, 13% had entrepreneurship record less than 3 years and 5% more than 4 years.

Validity: Testing the research instrument validity indicates to what extent can examine something it must measure. In the current research for determination of



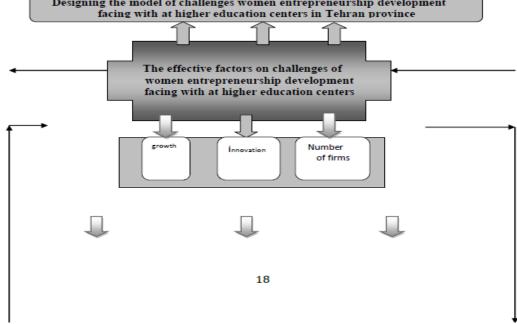


Fig. 1: The conceptual model

the survey validity, the content and face validity were adopted. That is, the experts' ideas on the survey were asked and some modifications were performed. To evaluate the content validity, a pilot study was done.

The formal modifications were performed for conceptualization of statements and terms in order to measure the relationship between items and the research objectives.

Reliability: For examining the instrument reliability, the Cronbach's alpha was used.

According to Table 1, the Cronbach's alpha for every index is larger than 0.07 which indicates the internal correlation among the variables. This proves the acceptable level of the instrument reliability (Fig. 1).

RESULTS

The descriptive statistics present the general characteristics of respondents and the obtained results related to participants; attitude toward each index.

Test of items of women entrepreneurship development challenges at the higher education centers of Tehran province: In the deigned survey, the items related to each challenge were measured. Table 2 shows the frequency of participants for the quality of instructor items (Table 3):

• **Test of quality of instructors items:** To measure this index, 8 items were designed in form of the

- Likert scale and examined the priority of respondents' attitude about the quality of instructors challenge in women entrepreneurship development. The results indicate that three first priorities including not granting scholarships to instructors, lack of improvement of instructors' status and lack of the study visits.
- Test of the training methods entrepreneurship items: To measure this index 12 items including no possibility of case studies, lack of giving speech by the successful businesspersons, not inviting the guest lecturers and professionals, lack of access to the previously performed researches, lack of local community development, shortage of facilities for visiting the successful entrepreneurship firms, not devising curriculum in accordance to business, having no discussion on small businesses, dearth of counseling clinics, lack of feasibility studies, not using on-line training and internship method were included. Prioritizing of items indicated that three items of feasibility studies, not designing curriculums appropriate with business and not using the internship method were more important than the rest.
- Test of the entrepreneurship training instruments items: In order to assess this index, 4 items such as insufficiency of using computer for training, dearth of audio-visual devices, not using the overhead and slide projectors and inefficiency of not fluorescent instruments were prepared.

Table 2: Frequency distribution of respondents in terms of instructors' quality items

	Rate (percentage)					
Item	Very low	Low	Average	High	Very high	Total
Failure to provide pre-service training programs	7	17	29	26	21	100
Lack of in-service training programs	5	9	32	34	20	100
Lack of interaction between education and the introduction of new	2	8	25	39	26	100
technologies to them						
Not to award scholarships to teachers	2	24	29	30	15	100
Not improve the status of teachers	5	18	32	31	14	100
Lack of library facilities and other sources of information for teachers	6	23	21	30	20	100
Lack of academic gatherings to exchange information and research	3	13	27	38	19	100
among teachers						
The lack of study visits	8	13	33	25	21	100

Table 3: Rating instructors' quality items

	Prioritizing			
Item	Median	Rating SD	Rated coefficient of changes	Rank
Not granting scholarships to teachers	3	1.11	0.370	1
No improvement in teachers' status	3	1.12	0.373	2
lack of study visits	3	1.24	0.413	3
Failure to provide pre-service training programs	3	1.25	0.416	4
Failure to provide pre-service training programs	2.5	1.21	0.484	5
Lack of interaction between education and the introduction of new technologies	2	1.01	0.505	6
Lack of academic gatherings to exchange information and research among teachers	2	1.12	0.560	7
Lack of in-service training programs	2	1.15	0.575	8

Prioritizing of the designed items show that lack of audio-visual instruments like video players, lack of using the overhead and slide projectors and insufficiency of training by computer was rated as the more critical items.

- Test of financial support items: For measuring this index 4 items (lack of direct financial aids of government for establishment of firms and entrepreneurship centers, insufficiency of facilities for paying long-term and low-interest loans, lack of insurance support from women entrepreneurs to invest in various sectors of the economy and the negative attitude of banks and financial institutions to women were included. Rating the items represented that lack of direct financial aids of government for establishment of firms and entrepreneurship centers, negative attitude of banks and financial institutions to women and lack of insurance support from women entrepreneurs to invest in various sectors of the economy had the greater significant, respectively.
- Test of individual factors items: To assess this index, 9 items such as lack of a spirit of independence, lack of risk-taking spirit, lack of morale, self-confidence, lack of entrepreneurial spirit, lack of achievement spirit, financial need, the need for security, lack of job satisfaction and lack of gaining power and prestige in society were designed. Prioritizing of the items indicated that lack of a risk-taking spirit, lack of job satisfaction and lack of self-confidence are the three important items, respectively.
- Test of legal factors items: To measure this index, 5 items including lack of supportive rules to reduce risks of investing of women entrepreneurs, regulations for cumbersome recording entrepreneurial companies, unclear requirements, scope and legal framework for women's entrepreneurial activities, family laws including prohibiting the employment of women in the absence of a husband's consent and employment laws including the law of part-time employment for women were considered. Rating the prepared items showed that cumbersome regulations for recording entrepreneurial companies, lack of supportive rules reduce risks of investing of women entrepreneurs and unclear requirements, scope and

- legal framework for women's entrepreneurial activities were the more important items.
- Test of cultural factors items: For evaluation of this index 8 items like more opportunities for unemployment, employment inequality, unequal wages for equal work, unequal access to productive resources, unequal participation in decision-making matters, inequality in job promotion, unequal opportunities for supplementary trainings and lack of women's awareness on the side of individual, family, social and professional rights). Rating these items represented that unequal access to manufacturing products, unequal participation in decision-makings and unequal opportunity of job promotion were the more significant items.
- Test of women entrepreneurship development items: To validate this index 11 items like establishment of a company, buying shares, growth in investment, growth in the production, growth in skilled human force, growth in sales, growth in profit, market innovation, product or service innovation, innovation in resources and raw materials and innovation in method or manufacturing process were included. Prioritizing these items showed that items of buying shares, growth in investment and growth in skilled and professional human force were the more significant items.

Measuring the normal distribution: For evaluation of the normal distribution of the data, the Kolmogrov-Smirnov test. Since level of significance for all research variables were greater than 0.05, the data were distributed normally.

The correlation coefficient: In order to test the research variables, the correlation matrix was used. The obtained results indicate that except for two variables quality of instructors and training instruments, which hold no meaningful correlation with the women entrepreneurship development, the rest of independent variables proved a meaningful relationship with women entrepreneurship development. In this regard, the most powerful association was observed between legal factors and women entrepreneurship development and the poorest association was between individual factors and women entrepreneurship development.

Table 4: Linear regression results for each challenge

Challenging affect women entrepreneurship development at higher education	on		
centers of Tehran province (hypotheses)	R^2	β	Sig
Quality of instructors	0.028	-0.166	0.001
Training methods of entrepreneurship	0.125	-0.354	0.001
Training instrument of entrepreneurship	0.05	-0.0224	0.001
Financial support	0.15	-0.388	0
Individual factors	0.122	-0.350	0
Legal factors	0.226	-0.476	0
Cultural factors	0.220	-0.469	0

Table 5: Results of performing structural model of effective challenges on women entrepreneurship development at the higher education centers of Tehran province

or remain province			
Relation	β	t-value	Result
Quality of instructor→entrepreneurship development	-0.22	2.02	Meaningful
Training methods of entrepreneurship→entrepreneurship development	-0.35	3.78	Meaningful
Training instruments→entrepreneurship development	-0.23	2.07	Meaningful
Financial support→entrepreneurship development	-0.38	4.08	Meaningful
Individual factors→entrepreneurship development	-0.35	3.55	Meaningful
Legal factors→entrepreneurship development	-0.47	5.47	Meaningful
Cultural factors→entrepreneurship development	-0.46	5.32	Meaningful

 $\chi^2 = 1845.96$; df = 1741; RMSEA = **0**.061; GFI = 0.96; AGFI = 0.94; CFI = 0.95; NFI = 0.97; RMR = 0.019

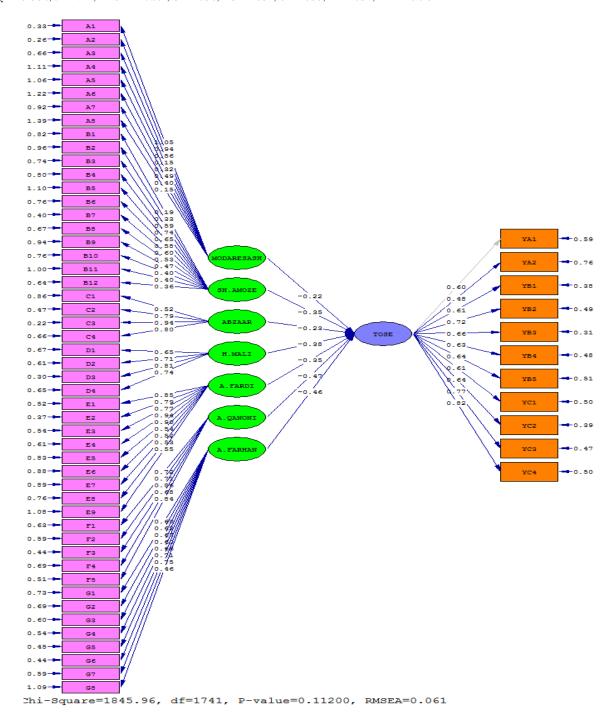


Fig. 2: Effective challenges on women entrepreneurship development at the higher education centers of Tehran province, the software output in the standard mode

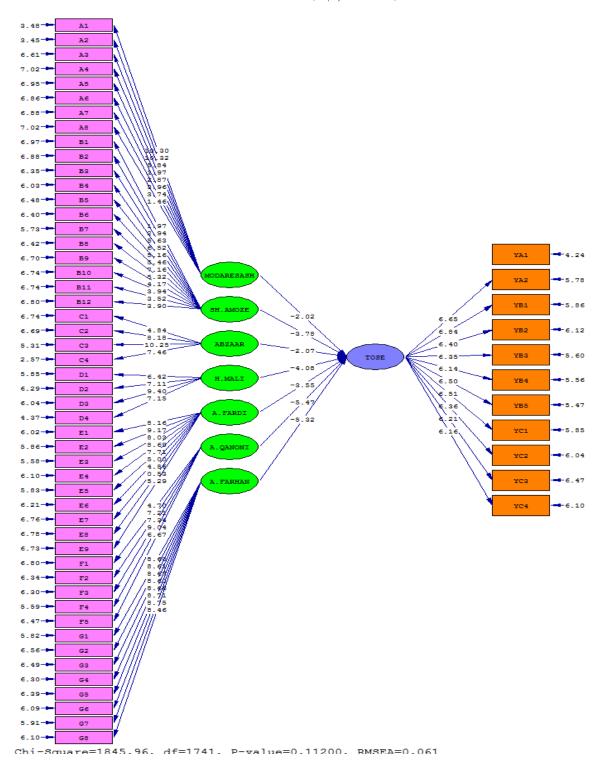


Fig. 3: Effective challenges on women entrepreneurship development at the higher education centers of Tehran province, in the meaningful mode of software

The results of linear regression: To test the research variables, the bivariate regression test was adopted. Table 4 represents the results.

According to value of coefficient of determination the share of each challenge in entrepreneurship development variance can be explained. The β value

shows decrease in women entrepreneurship development per each unit of increase in challenge. For instance, per one unit of increase in the quality of instructor challenge, 0.166 units decrease in the women entrepreneurship development is resulted.

Moreover, all the research variables hold a meaningful impact on the women entrepreneurship development at the higher education centers of Tehran province. Meanwhile, the legal and cultural factors showed the greatest effect and the quality of instructors and the training instruments indicated the lowest level of impact on the women entrepreneurship development at the higher education centers of Tehran province.

Structural equation modeling via LISREL: In order to test the conceptual model, the structural equation modeling with the LISREL software was used. Examining the model fitness according to the LISREL output the computed x^2/df value is 1.06. Smaller value of x^2/df than 3 indicates that the model fitness is acceptable. Furthermore, root mean square error of approximation should be lower than 0.08 that in the model it is equal to 0.061. The value of factors GFI, AGFI, NFI and CFI should also be greater than 0.9 that these values for the model are calculated 0.96, 0.95 and 0.97 respectively. Also, the value of RMR should be smaller than 0.05 that this value for the model obtained 0.19. Considering the LISREL indexes and outputs it is determined that the data are relatively compatible with the model. The indexes also indicated that the research model is a good one and the data properly consist with it (Table 5).

The figures below illustrate the software output (Fig. 2 and 3).

CONCLUSION

The results were obtained by the current research are as follows:

Of the seven challenges measured, the most effective challenge is the legal factors 23% that per each unit of increase in the legal factors, 0.476 units of decreases are created in the women entrepreneurship development. Therefore, the legal factor the women entrepreneurship development are facing with have to be taken into special consideration.

Second factor with significant decreasing impact is the cultural factors 22% that per each unit of increase in the cultural factors challenge, 0.469 units of decrease are caused in the women entrepreneurship development.

The third effective factor on the women entrepreneurship development is the financial support 15% that per each unit of increase in the financial support challenge, 0.388 units of decrease are created in the women entrepreneurship development.

After, two trainings methods and individual characteristics challenges 12% are important. That is, per one unit of increase in the training methods and the individual characteristics, 0.354 units of decrease are caused in the women entrepreneurship development.

However, the training instruments challenge 5% and the quality of entrepreneurship instructors' challenge 3% showed the lowest impact on the women entrepreneurship development.

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