

Identification and Analysis of Barriers to Employment for Educated Women in Afghanistan

Yelda Arib*

Department of Macro Economics, Lecturer at Faculty of Economics, Herat University, Herat, Afghanistan

*Corresponding author: yeldaarib@yahoo.com

Received June 14, 2020; Revised July 15, 2020; Accepted July 24, 2020

Abstract Employment is one of the things that has always been of great importance in developed and developing countries. Considering the 50% share of women in the active population of each country, it is important to pay attention to employment in this sector. For this purpose, the present study aimed to recognize and analyze the barriers to the employment of educated women in Afghanistan. Initially, considering the various sources, barriers to employment of educated women in Afghanistan were identified and classified into different groups using factor analysis. Then, by filling out 437 questionnaires in Kabul, Herat, Balkh and Kandahar provinces, the most important barriers to the employment of educated women in Afghanistan were identified and analyzed using the Logit model. The results showed that variables such as the number of people with family income, age, education, inappropriate government policies, and insecurity in society, personal social factors, general culture, mentality, and personality are among the variables that affect the employment of educated women in Afghanistan. Also, by comparing weighted elasticities, comparing the 8 variables that influence the barriers to employment of educated women in Afghanistan, it is observed in the Logit model that the variable of personal social factors has the most importance on non-employment of educated women in Afghanistan. After this variable, respectively, are the policies of inappropriate government policies and the number of people with income in the family and the least important variables are age and education.

Keywords: *employment, women, factor analysis, Logit Model, Afghanistan*

Cite This Article: Yelda Arib, "Identification and Analysis of Barriers to Employment for Educated Women in Afghanistan." *Journal of Finance and Economics*, vol. 8, no. 4 (2020): 171-182. doi: 10.12691/jfe-8-4-3.

1. Introduction

One of the main problems of third-world countries, including Afghanistan, is the trivial role of women in outdoor tasks. As a developing country, Afghanistan is in dire need of educated, efficient, and expert human resources, and consequently, must use the female workforce. Women can play fundamental roles as half of the community's population. The Industrial Revolution in Europe led to vivid changes in the form and concept of work, and women's economic activity, which was dedicated to working at home, was extended to factories. Thenceforth, women started working in different areas in addition to the production field and factories by learning science [1]. The type of work and the presence of women in different jobs are different from men. Women in developed countries are most active in office jobs, unpaid household work, sales and service work, as well as technical and vocational jobs. On the other hand, women in developing countries are mostly involved in unpaid housework, sales, and service, and office, technical and professional jobs. Therefore, it could be concluded that women have limited presence in certain decision-making bodies and jobs in both developed and

developing countries and are mostly active in low-rank, service, and office jobs [2]. Women receive only one-tenth of the world income despite the fact that they make up half of the world's population. Over the last few years, government authorities have paid special attention to this type of inequality that more or less exists in all societies. While women in developed countries have increased their share of professional jobs and employment extensively, women in developing countries are most active in agriculture, housing, and informal activities [3].

In the past decades, women traditionally played a fundamental role as a mother and a spouse. Nevertheless, increased living costs and the ability to gain knowledge and skills increased women's participation in economic and social areas outside the home in addition to their primary role. The society's structure has changed in a way that women act more freely and without fear of exploitation, discrimination, and injustice and believe in a better future. According to the World Bank Report (2015), Japan among Asian countries had the highest employment rate for women (64%) while Afghanistan and Iraq had the lowest employment rates (10 and 12%, respectively) [4]. According to a review of the society, rules (including family and work laws), traditions, and social norms, the dominant belief is that men are breadwinners in families, which makes women's economic participation

seem unnecessary. Nonetheless, given the increasing level of literacy of women as well as the share of women admitted to universities, increased mean of marriage age, decreased household volume and reduced purchasing power of household heads, the rapid rise in women's participation rates in the coming years is inevitable and proper plans must be developed to create suitable job opportunities based on women's level of education and skills. Therefore, development planners should always keep in mind that in promoting social conditions, women are not second-class citizens, weak or marginalized. In fact, women's role must be emphasized as economic activists to achieve a desirable social status since lack of exploitation of women's potential in various cultural, social, economic and political areas makes development impossible [5].

This large social group plays an active role in social advancements and sustainable development of communities, in a way that lack of use of their potential in various cultural, social, economic, and political fields makes development impossible [6]. Today, the educational status of women has improved significantly since they have gone through the same levels of education as men and even in some cases have shown more improvements, compared to men. According to statistics, gender parity index¹ (GPI) in Afghanistan in elementary, junior high and high school in 2017 was 0.91 (91 educated women per 100 men), 0.76 and 0.50, respectively in urban areas, and 0.61, 0.38 and 0.16, in rural areas respectively, and 0.69, 0.51 and 0.32, respectively in the whole country, which shows that the share of men in education is higher than that of women [7]. The main objective of the present study was to determine the factors involved in the higher share of men's participation in different jobs, compared to women. Another goal was to realize why some women do not work despite their interest in working outside the home. What are the barriers to their working outside the home? In the end, attempts were made to highlight the role of women's employment in economic, social, and cultural development and to propose solutions to eliminate the barriers. To this end, the barriers to women's employment, including traditional customs, prejudice, the dominance of patriarchal culture, misunderstanding of religious teachings and insecurity, were identified and proper solutions were suggested. With this background in mind, this study aimed to evaluate and analyze barriers to the employment of educated women in Afghanistan.

2. Theoretical Foundations

Given the differences between men's and women's employment, the most important theories are summarized in this section.

¹ Gender Parity Index (GPI) is a socioeconomic index usually designed to measure the relative access to education of males and females. Published by UNESCO, the index is calculated as the ratio of the number of women to the number of men in a given stage of training (elementary, middle school, etc.) in its simplest form. GPI is a sign of equality between men and women. A GPI below one indicates that gender inequality is in men's favor, whereas a GPI below one indicates otherwise.

2.1. Neoclassical Theory

The theory is applied to determine gender and income differences between men's and women's jobs [8]. According to modern economists, the family divides its resources (time and money) between family members rationally. According to the theory, women have less human capital than men, so they work at home and men work in the market ([9]; 190). In addition, there is a high turnover rate among women due to issues such as marriage, pregnancy and childbearing, which has made employers reluctant to recruit women ([10]; 134).

2.2. Human Resources Approach

This theory mentions the lack of complete placement of men and women in the labor market. Although men and women may be similar in terms of intelligence and level of education, women earn less human capital from business. This is mainly due to the fact that women spend a shorter time in the work market, compared to men, which has created some differences between the two groups ([9]; 191). Some economists believe that this reflects the effects of the family on women's labor supply curve ([11]; 288).

2.3. Job Division Approach in the Domestic Labor Market

The dual labor market model is the main application of the domestic labor market approach to address women's wage and employment issues. In this model, the main hypothesis is related to the division of labor into primary and secondary; in the former, the goal is maximizing profit and recruiting an active workforce that is less affected by economic fluctuations. These jobs with high salaries and progress are very important for the employer in terms of job stability, and the female labor force's intermittent entry and exit from the market means that high-ranking jobs are less assigned to women. Accordingly, men have a better chance of getting a job than women despite equal abilities and skills of both genders. This is mainly due to the fact that from the perspective of employees, men are recognized as sustainable workers and employers since they less change their job or have a low turnover rate [12].

2.4. Theory of Rational Selection and Non-discriminatory Factors

The theory proposes that low levels of women's occupational status in the work market are the result of women's own rational and autonomous choices. According to this theory, most women anticipate the stages of marriage and childbearing, which causes a gap between the period of their market function and the time of their marriage, thereby creating economic degradation [13].

2.5. Gender-based Theory

The theory points out that the functional positions of women in the labor market and the family are related to

each other and a part of a social system, in which the status of women is kept subordinate [8].

2.6. Structural Barriers Affecting Women's Share in the Labor

Born from social structures and condition, structural barriers are divided into three cultural, social and economic sections.

A) Cultural Barriers

Despite the significant importance of economic factors in women's employment, various studies have shown that the common beliefs and values in a society (e.g., differences and discrimination in the process of socialization of men and women and the prevalence of patriarchal thinking) directly affect the level of women's employment [14]. Men became primary breadwinners in the family in traditional societies, which led to the belief that the economic activities of women are unnecessary. However, the increase in the level of women's literacy and the average age of marriage, the decrease in the purchasing power of the head of the household and the high participation rate of women have necessitated appropriate planning to create suitable job opportunities for this group.

B) Social Barriers

Official laws and social rules related to women's social and individual rights and duties affect women's participation in economic activities. Social barriers include gender segregation in education, restrictive policies in choosing a field of study, employment for female individuals, family rules, labor laws, discrimination in employment structure, workforce selection criteria, and sexual division of male and female occupations [14]. In this regard, necessary facilities for employing women in jobs are provided based on women's rights to property, division of inheritance, accepting a spouse, decision-making in the family and job choice, laws related to women's employment in society and government policies agree with the expansion of women's employment [15].

C) Economic Barriers

In terms of the economic barriers to women's participation, the following items can be pointed out:

Unpaid household work: housekeeping is a major part of women's work in society and involves a variety of economic activities. Meanwhile, no economic assessment of such activities is carried out [16]. In other words, the costs of staying home and housework affairs should compensate for the wage level.

- **Economic inflation:** inflation increases women's economic activities and their role as the second breadwinner in the family, especially in low-income classes. In other words, inflation control means the control of a factor that affects women's entry into the labor market [17].

- **Distribution of income:** the more unequal the distribution of income, the higher engagement of women in economic activity outside the home to support the actual level of household consumption.

- **Role of the government:** reducing government ownership and privatization affects women's employment. The more the government monitors the economics, the more it prevents gender discrimination in the society.

- **Unemployment rate:** the higher the unemployment rate, the greater frustration with finding a job in the female population.

- **Wage level differences:** the difference in income between men and women is partly due to differences in employment. In this regard, women's working hours may be less than that of men, or they might have part-time jobs.

Another factor affecting this income gap between the two genders is discrimination in wage payments, which is introduced as invisible adjustment by UNESCO [16]. In addition, the high supply of women's labor force in relation to demand motivates managers and employers to hire women with lower wages, which has led to a difference in wages, resulting in women's reluctance to participate in economic activities [18].

- **Type of occupations:** jobs such as office maid are traditional roles mostly attributed to women. These jobs prevent women's economic activities due to low wages and status [2].

- **Socioeconomic status of the household and the spouse's income level:** women less rely on work incomes if there is a suitable socioeconomic status in the household. The higher the income of the spouse, the higher the cost of lost opportunity. In such conditions, women become responsible for household affairs and men participate in economic activities [19].

2.7. Non-structural Barriers Affecting Women's Share of Labor

These barriers are related to the physiological status and personality system of women and are rooted in their biological and psychological dimensions. However, they are affected by the cultural system and social values as well. Regarding occupation, women are subordinates of mental structure and physical situations. In other words, they can properly perform some jobs but fail to do some other tasks [20].

2.8. Demographic Factors Affecting Women's Share in Labor

Demographic factors include level of fertility and education. Increased fertility rate is accompanied by an increase in women's responsibility at home. Therefore, higher fertility prevents women from participation in activities outside the home [21]. In addition, the higher a women level of education, the higher the chance of finding a job in various economic sectors. Women's level of education has played an important role in their participation in the past few years [19].

3. Research Background

First, we evaluated two articles in Afghanistan that directly focused on the topic of employment, and then assessed studies in other countries. Rezaei [22] evaluated the barriers to the employment of women in Herat, Afghanistan. According to the results, cultural factors (traditional beliefs in society, misinterpretation and misunderstanding of religious teachings, gender discrimination

between men and women based on men's superiority over women, discrimination between girls and boys in the process of socialization and negative attitudes of families about women's employment), low literacy and illiteracy of women and economic factors were recognized as barriers to women's employment in Herat. In another study, Razzagh [23] evaluated the employment status of women in Afghanistan, concluding that there is a very low number of women in government offices of the country, compared to men. In this regard, 75% of government offices' staff are men and only 25% of the jobs are allocated to women. In addition, only 11% of women have service jobs while men have 89% participation in service occupations. According to the results of this study, the lack of economic independence of women was related to factors such as customs and traditions in society, in a way that is forbidden by the family was reported as the main barrier to the employment of 58% of women. In addition, 26% and 16% of the participants considered a lack of safety and household affairs and childbearing as the main causes of lack of participation in works outside the home, respectively. Sadi et al. [6] analyzed barriers to employment for rural women in Tuyserkan using the factor analysis method. The study included obtaining the opinions of 150 randomly selected women about the barriers to women's employment in a rural society. According to the results, social-cultural factors were the most important barriers to employment for rural women, followed by economic-environmental, personality, and educational-support factors.

In a study, Savari et al. [24] evaluated the barriers to the development of rural women's employment in handicrafts field in Divandarreh, Iran. In total, 170 women were selected applying the Cochran's sampling formula. According to the results, the most important barrier to the handicrafts area development was the lack of government attention and support for the handicrafts sector from the viewpoint of rural women. In addition, the factor analysis of barriers to handicraft area development led to the extraction of five factors, including economic, infrastructural, social-cultural, educational, and psychological barriers. In another study, Alavizadeh et al. [14] evaluated the factors preventing the employment of rural women in Kashmar, Iran. They used factor analysis and Friedman's test to analyze the data, and their statistical population included all rural women at active age in Bala Velayat Rural District (N=10194). In total, 370 individuals were selected by Cochran's formula. According to the factor analysis results, eight final factors were determined, which were able to explain 60.314% of the variance of all research variables. In this respect, investment and psychology had the highest and lowest variances, respectively. In addition, the cultural dimension had the highest impact on the employment of rural women with a mean of 4.34. In the aforementioned research, the most effective barriers to the employment of women included "a lack of financial support and enough savings", "low level of literacy of rural women", and "heavy duties of women in the home".

In another study, Jamshidi et al. [20] assessed the barriers to the development of rural women in Chardavol, Iran. These scholars used the analytic network process (ANP), and introduced maternal duty, inability to compete for a job, low bargaining power of women, the masculinity of some jobs, gender pay gap, and a lack of job training as

the most important barriers to the employment of rural women in this city. Sharifi et al. [25] conducted a study on rural women aged 15-64 years in Najadabad, Iran to evaluate the factors that encourage and discourage the development of rural women's employment. According to the results, six discouraging factors were identified, including infrastructural-supportive, cultural-psychological, skill-related, social confidence, structural, motivational-cognitive, and bank facilities, which explained 66.5% of the total variance. In addition, the factor analysis results introduced educational-supportive, cultural-infrastructural, family, as well as economic and institutional participation as encouraging factors for women's employment development. Overall, the mentioned factors explained 60.68% of the total variance. According to the results, the discouraging factors had a greater share, compared to the encouraging factors. Assessing the social and cultural barriers to women's employment and proposing solutions, Esmali [26] found a significant relationship between traditional customs in the society, discrimination in facilities, women's social base, and democratic culture with women's employment and education. On the other hand, no significant relationship was observed between women's economic status and employment status. In a research, Madani and Nejadfallah [27] evaluated the effect of women's employment on family, concluding that unemployed women have a more favorable status in terms of general health and marital satisfaction. Employed women were also ranked first in the education system.

In another study, Arabmazar et al. [28] evaluated the socioeconomic factors affecting women's employment in Iran using Modello logit. The mentioned research was performed on 5797 women in cities and villages of the country, and the results were indicative of a positive, significant relationship between factors such as employment women in a household, marital status, place of residence, and being the head of the family with women's employment. Age, as one of the important factors, had a positive but non-linear effect on employment, while higher education had a reverse effect on women's employment. Using the Logit model, Ejaz [29] evaluated rural and urban women's employment in a research entitled "the determinants of women's labor force participation in Pakistan". According to the results, there was no linear relationship between age and women's labor force participation. In addition, education coefficients indicated a nonlinear relationship between education and women's labor force participation. The marital status coefficient indicated that married women had a lower participation rate, compared to single women. Moreover, Women in nuclear families had a higher participation rate, compared to those living in large families. In a research, Ahirro & Sadavarte [30] evaluated the financial and social obstacles for entrepreneurial women in Jalna, India. According to the results, the dual role of women, prejudice against women, lack of economic freedom, problems in public relations, lack of being exposed, lack of risk capacity, lack of self-confidence, lack of social security, and fear of traveling were social barriers in this regard. In addition, lack of financial knowledge, lack of collateral for loans, lack of fixed and current capital, complexity and time-consuming process of getting a loan and fear of intermediaries were among the financial barriers. In a previous study, Richard &

William [31] evaluated women's participation in the labor force and its determinants in the rural and urban areas of China. According to the results, education determined the ratio of women's labor force participation more than other factors in urban areas. On the other hand, social and demographic factors played a more important role in women's labor force participation in rural areas. In experimental research held during 1960-1970, Coen-Pirani et al. [32] marked that women's spouses played a fundamental role in women's employment, in a way that they could lay the foundation for the employment of women by encouraging them in this regard.

Assessing women's participation in the work market during 1980-1990, Evans & Kelley [33] found a positive relationship between women's education level and work tendencies. In addition, they marked direct and indirect effects of the type of family upbringing on women's employment. In another research, Lee et al. [34] conducted a research in South Korea to evaluate the employment of young married women, reporting a higher employment rate in urban women, compared to rural women. Furthermore, Zhang et al. [35] evaluated employment based on gender and income differences in urban areas of China. In the end, marriage and creating a family affected women's income and employment status.

4. Materials and Methods

This part of the article is dedicated to the research methodology, for which we first evaluated the sampling method and sample size estimation method. Afterwards, we assessed factor analysis method and the Logit model at the end.

4.1. Statistical Population, Sample Size, and Sampling Technique

The statistical population included employed and unemployed women with an associate or higher degree in Afghanistan in 2019. Sampling with unknown volume was applied given the scattered, widespread statistical population and due to a lack of accurate statistics on the status of educated women. At the end, the sample size was determined at 384 based on Morgan's table. In addition, 20% of the total number of questionnaires (76 questionnaires) were re-filled in addition to the 384 questionnaires to ensure the accuracy of the results. Ultimately, the incomplete questionnaires were removed from the research and 437 tools were analyzed. Given that the largest population and number of educated women in Afghanistan is in the four provinces of Kabul, Herat, Balkh and Kandahar. It was impossible to sample from all the provinces of the country due to the security problem, so we applied the random cluster sampling, where 34 provinces of Afghanistan were considered as clusters, and four provinces were randomly selected.

4.2. Data Collection Tools, Tool Validity and Reliability

In this study, the tool's items were scored based on a five-point Likert scale from completely agree (five scores) to completely disagree (one score). The initial

questionnaire was prepared by referring to the theoretical foundations and research background and using experts' opinions. Afterwards, the questionnaire was implemented as a pilot and the content and conceptual errors detected in the tool were corrected. Face validity was used to assess the validity of the questionnaire, meaning that the opinions of experts (advisors and professors) were applied to modify the tool. In addition, construct validity was used for the same purpose, and the factor analysis technique was exploited to explain the results. On the other hand, reliability was assessed using internal consistency based on Cronbach's alpha, the results of which were explained in the conclusion section.

4.3. Factor Analysis

Factor analysis is a statistical method that examines the internal correlation of a large number of variables and ultimately categorizes and summarizes them. The most important point in applying factor analysis is to calculate the correlation matrix. To this end, it must first be determined that the purpose of the calculation is between the variables or between the respondents. If the goal is to summarize the variables, the correlation between the variables should be considered (confirmatory factor analysis). On the other hand, the correlation matrix between respondents should be calculated (exploratory factor analysis) if the goal is to combine and classify the respondents in different groups. However, exploratory factor analysis is less commonly used due to its complexity, and alternative methods such as cluster analysis or hierarchical grouping are applied instead. It should be noted that the confirmatory factor analysis method was exploited in this research. The Kaiser-Meyer-Olkin test (KMO) is one of the methods by which a researcher can test the suitability of data for factor analysis. The statistical value of this numerical test is between 0 and 1, where a value below 0.5 is indicative of unsuitable data for factor analysis, whereas value in the range of 0.5-0.69 is interpreted as conducting factor analysis with caution. Finally, a score above 0.7 means that the correlations between the data are suitable for factor analysis. Bartlett's test should also be used to confirm the significance of a factor analysis model. Bartlett's test hypothesizes that the observed correlation matrix belongs to a society with unbalanced variables. If the hypothesis that the variables are related to each other is not rejected, the application of factor analysis will be questioned [36].

4.5. Logit Model

The Logit model is one of the models that examines people's selective behavior or their encounter with events for which there are two options, and only one of them should be selected. In the present research, the dependent variable of employment of educated women in Afghanistan (Y) is a qualitative variable with two zero and one values. The variable's value is one when the educated person is employed; otherwise, a score of zero is allocated. However, normal regression analysis methods cannot be applied under such circumstances. To address the problems of the linear probability model, such as the variance inequality

and the abnormality of the ui, a pattern is required that has the following two characteristics.

$$\lim \text{prob}(Y = 1) = 1, \dot{\beta}_X \rightarrow +\infty \quad (1)$$

$$\lim \text{prob}(Y = 0) = 0, \dot{\beta}_X \rightarrow -\infty. \quad (2)$$

Its collective distribution function is, as follows:

$$p_i = 1 - F(\dot{\beta}X_i) = \frac{\exp(\dot{\beta}X_i)}{1 + \exp(\dot{\beta}X_i)} = \frac{1}{1 + e^{-z}} = \wedge(\cdot) \quad (3)$$

$$-p_i = 1 - F(-\dot{\beta}X_i) = \frac{\exp(-\dot{\beta}X_i)}{1 + \exp(-\dot{\beta}X_i)} = \frac{1}{1 + e^{+z}} = \wedge(\cdot) \quad (4)$$

Where $\wedge(\cdot)$ refers to the logistic distributive collective function and $\dot{\beta}X_i - Z$ is established. In addition, X_i reflects the independent variables of the pattern. It is easy to evaluate the issue that Z changes between $-\infty$ and $+\infty$, P_i will have values between zero and one, and P_i is related to Z_i (X_i s) in a non-linear way. A point in estimation of the model is that P_i is non-linear not just based on X_i calculation but also based on β s, meaning that the conventional OLS method is no longer applicable to the estimation of the model's parameters. However, the problem can be easily solved and P_i can be turned into a linear relationship obtained based on equations 3 and 4:

$$\frac{p_i}{1 - p_i} = \frac{1 + e^z}{1 + e^{-z}} = e^z \quad (5)$$

$\frac{p_i}{1 - p_i}$ is the ratio of possibility of educated Afghan women's employment to their unemployment. The following results will be obtained in case of obtaining a natural logarithm in equation 4:

$$L_i = L_n \left(\frac{p_i}{1 - p_i} \right) = Z_i. \quad (6)$$

As observed, L (the logarithm of the superiority ratio) is linear not only in terms of X_i but also in terms of parameters. These models will no longer have the problems pointed out before [37]. One of the most important goals in estimating probabilistic patterns such as logistics is to predict the effects of changes in explanatory variables on the dependent variable. If assumed that X_{ik} indicates the descriptive variable, the following equation (known as marginal effect [ME]) is obtained by taking a partial derivative of equation 3 relative to X_{ik} .

$$ME = \frac{\partial P_i}{\partial X_{ik}} = \frac{\exp(\dot{\beta}X_i)}{[1 + \exp(\dot{\beta}X_i)]^2} \beta_k. \quad (7)$$

The final effect is calculated by scaling the estimated parameters. This scale is different for each of the observations of the independent variable. Nevertheless, the scale was estimated in mean of the independent

variables in the current research, and the final effect for the independent variables that appear logarithmically in the template is calculated as follows:

$$\frac{\partial P(Y = 1|X)}{\partial X_{ik}} = \frac{\text{Scale} \cdot \beta_k}{\bar{X}_{ik}}. \quad (8)$$

In fact, to calculate the final effect of the main variable, the final effect calculated for the logarithmic form must be multiplied by the mean of that variable.

Using equation 8, the descriptive variable elasticity is obtained from the following equation:

$$\mathcal{E}_k = \left[\frac{\exp(\dot{\beta}X_i)}{[1 + \exp(\dot{\beta}X_i)]^2} \beta_k \right] \frac{X_{ik}}{P_i} = \beta_k (1 - P_i) X_{ik}. \quad (9)$$

Estimated coefficients (β s) do not have a direct economic interpretation in the Logit model, and describe the final effect and elasticity coefficients. It is notable that elasticity coefficients can only be used for continuous independent variables. Elasticity marks the percentage change in the probability of success ($Y=1$) in the dependent variable, resulting in one percent change in the independent and constant variable of other factors. Meanwhile, since elasticity coefficients are different for each of the observations, a summary must be presented for the elasticity of each variable. To this end, a conventional method is estimating elasticity at means for each independent variable. However, there is a limitation in this way. According to Train [38], since elasticities are non-linear function of values of observations, there is no guarantee that the Logit function will pass through the point defined by the mean sample. Hensher and Johnson [39] have proposed a method to solve this problem, which involves estimating the elasticities for each observation, followed by calculating the weighted aggregate elasticity in a way that the weights would be predicted probabilities. Elasticity at means is calculated by equation 10:

$$E_k = \left(\frac{\partial P_i}{\partial \bar{X}_k} \right) \frac{\bar{X}_k}{F(\dot{\beta}\bar{X}_i)} \quad (10)$$

and the weighted aggregate elasticity was estimated using the equation below:

$$\bar{E}_k = \frac{\sum_{i=1}^N \hat{P}_i E_{ki}}{\sum_{i=1}^N \hat{P}_i} \quad (11)$$

Coefficients of determination other than R^2 (e.g., Cragg-Uhler and Mc fadden) were described in the Logit model, as shown below [37].

Cragg-Uhler's Coefficient of Determination

$$R^2 = \frac{1 - \exp\{2L(0) - L(\hat{\beta})/N\}}{1 - \exp\{2L(0)/N\}}. \quad (12)$$

Mc fadden's coefficient of determination

$$R^2 = 1 - \left[L(\hat{\beta}) / L(0) \right] \quad (13)$$

Chow's coefficient of determination

$$R^2 = 1 - \frac{\sum_{t=1}^N (Y_t - \hat{Y}_t)^2}{\sum_{t=1}^N (Y_t - \bar{Y})^2} \tag{14}$$

Likelihood ratio (LR) was applied in the Logit model to assess the overall significance of the model and its goodness of fit. The ratio is calculated, as follows:

$$LR = 2[L(\beta) - L(0)]$$

$$L(\beta) = \sum_{i=1}^N \left\{ Y_i \ln [F(\beta'X_i)] + (1 - Y_i) \ln [1 - F(\beta'X_i)] \right\} \tag{15}$$

$$L(0) = S \ln \left(\frac{S}{N} \right) + (N - S) \ln \left(\frac{N - S}{N} \right).$$

The Logit model used in the present study is as follows:

$$Y = C + \sum_{i=1}^{17} X_i + \varepsilon \tag{16}$$

Where the variable of Y is indicative of employment or unemployment of educated women in Afghanistan. In addition, descriptive variables of (X_i) included the number of family members, number of people with income in the family, age, level of education, marital status, as well as economic-environmental, economic-personal, social-environmental, social-personal, cultural-environmental, cultural-personal, psychological and individual factors. The variable C is the width of the origin and ε is part of the error.

5. Results and Discussion

First, the tools' reliability was assessed by Cronbach's alpha technique, the results of which are shown in Table 1. As observed, all variables were in the accepted range and the research tools had proper reliability.

Table 3 presents the results of performing confirmatory factor analysis on economic (environmental, personal), social (environmental, personal), cultural (environmental, personal), and psychological and individual factors. As

observed, the following variables were excluded from the final analysis due to a low factor coefficient value: "the lack of employment agencies and employment counseling centers in line with women's needs affects women's unemployment" among economic-environmental variables; "family dependence on income from the immigration of a family member reduces women's demand for employment" among economic-personal variables and "rent in the workplace hinders women's employment opportunities" among social-environmental variables.

Table 1. Reliability of research tools

| Variables | | Number of items | Cronbach's alpha |
|------------------------------|---------------|-----------------|------------------|
| Economic | Environmental | 8 | 0.68 |
| | Personal | 3 | 0.69 |
| Social | Environmental | 6 | 0.783 |
| | Personal | 3 | 0.72 |
| Cultural | Environmental | 4 | 0.720 |
| | Personal | 4 | 0.675 |
| Psychological and individual | - | 5 | 0.810 |
| Total questionnaire score | - | 40 | 0.67 |

Source: Research Findings.

Confirmation of the tools' reliability was followed by the use of Bartlett's test and KMO to carry out confirmatory factor analysis. According to Table 2, they both showed the suitability of the data for performing factor analysis in economic (environmental, personal), social (environmental, personal), cultural (environmental, personal), and psychological and individual factors.

Table 2. Bartlett's test and KMO results

| Factors | KMO and Bartlett's test |
|--------------------------|-------------------------|
| Economic-environmental | (0.000) 0.674 |
| Economic-personal | (0.0002) 0.493 |
| Social-environmental | (0.000) 0.834 |
| Social-personal | (0.000) 0.529 |
| Cultural-environmental | (0.000) 0.746 |
| Cultural-personal | (0.000) 0.585 |
| Psychological-individual | (0.000) 0.824 |

Source: Research Findings.

Table 3. Confirmatory factor analysis in economic (environmental, personal), social (environmental, personal), cultural (environmental, personal), and psychological and individual factors

| Factors | Variables | Factor coefficient value |
|------------------------|---|--------------------------|
| Economic-environmental | Inflation and rising prices are a major obstacle to women's employment. | 0.620 |
| | Income inequality in the society and class distinctions between different classes take away women's employment opportunities. | 0.643 |
| | In the current situation, one of the problems of women's employment is the return of immigrants to the country and the increase in the number of job seekers. | 0.524 |
| | Government policies and programs have hindered women's access to employment. | 0.438 |
| | There is a gender pay gap in the workplace, which has made women reluctant to work outside the home. | 0.485 |
| | Lack of appropriate legal and financial incentives, such as the lack of insurance services and labor rights, hinders women's employment. | 0.573 |
| | The country's economic situation and dependence on other countries have a negative impact on women's employment. | 0.595 |
| | The lack of employment agencies and employment counseling centers in line with women's needs affects women's unemployment. | 0.007 |

| Factors | Variables | Factor coefficient value |
|------------------------------|--|--------------------------|
| Economic-personal | women have a higher tendency to work when the family is unable to cover living expenses. | 0.695 |
| | The dependence of the family on the income from immigration of a family member reduces women's demand for employment. | 0.316 |
| | Women's desire for economic independence increases their demand for employment. | 0.773 |
| Social-environmental | Life-threatening dangers such as explosions reduces women's desire to work outside the home. | 0.803 |
| | Social insecurity of women in the labor market reduces their employment rate. | 0.824 |
| | Women's insecurity in the workplace is one of the barriers to their employment. | 0.841 |
| | Negative attitudes toward women's presence in the labor market hinder women's employment. | 0.722 |
| | Families' opposition to women's employment outside the home hinders their employment. | 0.652 |
| | Rent in the workplace decreases women's employment opportunities. | 0.173 |
| Social-personal | Women miss out on the job market due to lack of support by the family. | 0.550 |
| | Women's lack of familiarity with entrepreneurial methods hinders their employment. | 0.836 |
| | Women's field of study and the skills are unrelated to the needs of the labor market, which prevents their employment | 0.741 |
| Cultural-environmental | The prevailing cultural customs and traditions in the country hinder women's employment. | 0.745 |
| | Religious beliefs hinder women's employment. | 0.744 |
| | Weak entrepreneurial culture in society hinders women's employment. | 0.693 |
| | The dominance of patriarchal culture in society hinders women's employment. | 0.766 |
| Cultural-personal | In our society, public culture and the prevailing beliefs in society hinder women's employment outside the home. | 0.714 |
| | Women's employment outside the home reduces their participation in household chores, and as a result, family members oppose women's employment outside the home. | 0.761 |
| | Family prejudices prevent women from working outside the home. | 0.720 |
| | Interracial marriage prevents women's employment outside the home. | 0.417 |
| Psychological and individual | Women are less confident and less demanding than men, and therefore less inclined to work outside the family. | 0.747 |
| | Working outside the home endangers women's mental health and well-being and reduces their willingness to work outside the home. | 0.789 |
| | Women's emotional dependence on family members reduces their willingness to work outside the home. | 0.785 |
| | Women in the workplace cannot defend their rights well, so they give up employment. | 0.761 |
| | Women are distrustful of work environments and people who work in these places, and therefore, do not want to work outside the home. | 0.689 |

Source: Research Findings.

Table 4. Results of Logit model estimation to assess the factors affecting the employment of educated women in Afghanistan

| Variable | Coefficient | Standard error | Z statistic | Probability |
|--|-------------|----------------|-------------|----------------------|
| Number of family members (X1) | -0.0814 | 0.0534 | -1.5218 | ^{ns} 0.1281 |
| Number of people with an income (X2) | 0.4828 | 0.1331 | 3.6264 | ***0.0003 |
| Age (X3) | 0.0640 | 0.0159 | 4.0115 | ***0.0001 |
| Level of education (X4) | 0.2998 | 0.0943 | 3.1768 | ***0.0015 |
| Marital status (X5) | 0.3998 | 0.2555 | 1.5648 | ^{ns} 0.1176 |
| Economic-environmental factors (X6) | 0.5147 | 0.2248 | 2.2887 | **0.0221 |
| Economic-personal factors (X7) | 0.0361 | 0.2169 | 0.1665 | ^{ns} 0.8677 |
| Social-environmental factors (X8) | 0.5098 | 0.1905 | 2.6750 | ***0.0075 |
| Social-personal factors (X9) | -0.8141 | 0.2270 | -3.5859 | ***0.0003 |
| Cultural-environmental factors (X10) | 0.0667 | 0.2414 | 0.2765 | ^{ns} 0.7821 |
| Cultural-personal factors (X11) | -0.6272 | 0.2400 | -2.6135 | ***0.0090 |
| Psychological and individual factors (X12) | 0.4059 | 0.1602 | 2.5334 | **0.0113 |
| Y-intercept (C) | -8.2985 | 1.7742 | -4.6772 | ***0.0000 |

Source: Research Findings.

After examining and re-classifying the variables by factor analysis method, the factors affecting the employment of educated women in Afghanistan were estimated using the Logit method. Table 4 shows the results of estimating the Logit model to assess the barriers to employment for educated women in Afghanistan. According to the results, the eight variables of the number of people with income in the family, age, education level, economic-environmental, security, social-environmental, social-personal, cultural-personal, psychological and individual factors were significant while the rest of the variables (the number of family members, marital status, economic-personal and cultural-environmental factors) were insignificant. Nevertheless, this does not mean that the factors had no impact on employment of educated women in Afghanistan. The first significant variable was the number of people with income in the family. In other words, the increase in the number of people with income in the family increases the probability of employment of educated women in Afghanistan since they can create an opportunity for the employment of other family members with their work connections. The next significant variable was age, since aging was associated with a higher employment possibility for women. In general, level of education increases with aging, which is why educated women have a better employment opportunity. Another effective factor was education level, meaning that increased education led to a higher possibility of educated women's employment in Afghanistan. In other words, women with a higher education level have better job opportunities because of the growing employment situation in Afghanistan, which is in dire need of an educated workforce.

According to the results, environmental-economic factors had a positive, significant effect on the possibility of educated women's employment in Afghanistan. In other words, the higher the improvement of the economic conditions of Afghan society, such as inflation, poor income distribution, government policies, the higher the possibility of employment of educated women in Afghanistan. In addition, environmental-social factors had a positive, significant impact on the possibility of educated women's employment in Afghanistan. Women will have a greater chance to participate in the economic arenas if security increases and life threats and family's opposition to their work decrease in the country.

In addition, personal-social factors were assessed in this part of the research, the increase of which reduced the possibility of educated women's employment in Iran. This is mainly due to the realization that economic factors are not the only factors assessing women's employment, and women need to acquire the necessary skills to enter the work market in addition to improving the economic status in the society. According to the results, cultural-personal factors had a negative, significant effect on the possibility of women's employment in Afghanistan. These factors refer to the inappropriate culture and family prejudices in Afghan society. The higher the increase in these factors, the lower the possibility of educated women's employment. This is mainly due to the fact that the beliefs and prejudices are a major obstacle to the education of educated women, and must be reduced to improve women's employment conditions. The last variable affecting

women's employment was psychological and individual factors, meaning that the better a person's psychological status, the better their situation for employment.

A unit of the marginal effect must be calculated to evaluate the effect of the possibility of effective barriers to the employment of educated women in Afghanistan caused by a change in the independent variables. In addition, elasticities have estimated to show the relative importance of descriptive variables in barriers or lack of barriers to the employment of educated women in Afghanistan. The total weight elasticity was more reliable, compared to elasticity at means [40]. Therefore, total weight elasticities and marginal effect are shown in Table 5 for the model's variables.

According to the results, the total weight elasticity for the variable of the number of people with an income was estimated at 0.0941, and the marginal effect of the variable was 0.1612, demonstrating that a one-unit increase in the number of people with an income in the family led to 0.1612-unit increase in the possibility of employment to the unemployment of educated women in Afghanistan. Total weight elasticity was estimated at 0.0124 for the variable of age, meaning that if all other factors are considered constant, a mean of one percent increase in age increased the possibility of employment to the unemployment of educated women in Afghanistan by 0.0124 percent. The marginal effect of this variable was estimated at 0.0213, which showed that a one-unit increase in the variable increased the possibility of employment to the unemployment of educated women in Afghanistan by 0.0213 unit. Another variable assessed was education level, weighted aggregate elasticity, and the marginal effect of which were estimated at 0.0584 and 0.100, respectively. In other words, the possibility of employment to the unemployment of educated women in Afghanistan increased by 0.0584 per each one-percent increase in the variable assuming that other factors are constant. In addition, a one-unit change in the variable increased the possibility of employment to the unemployment of educated women in Afghanistan by 0.100 units. According to the results, the weighted aggregate elasticity of economic-environmental factors was estimated at 0.1003, showing that the possibility of employment to the unemployment of the educated women in Afghanistan increased by 0.1003 units per each one-percent change in the dependent variable (economic-environmental factors) if other conditions are constant. Moreover, the marginal effect of the variable was reported to be 0.1718, meaning that a one-unit increase in the variable increased the possibility of employment to the unemployment of educated women in Afghanistan by 0.1718 unit. In terms of social-environmental factors, weighted aggregate elasticity was estimated at 0.0993, and its marginal effect was calculated at 0.1702. This showed that a one-unit increase in environmental-social factors led to a 0.1702-unit increase in the possibility of employment to the unemployment of educated women in Afghanistan. However, weighted aggregate elasticity of social-personal and cultural-personal factors had negative coefficients. In other words, the possibility of employment to the unemployment of educated women in Afghanistan decreased by 0.1586 and 0.1222 units, respectively, per each one-percent change in the mentioned variables if the

other conditions remain constant. Moreover, the marginal effect of the aforementioned variables was estimated at -0.2718 and -0.2094, which showed that a one-unit increase in the two variables decreased the possibility of employment to the unemployment of educated women in Afghanistan by 0.2718 and 0.2094 unit, respectively. The psychological and individual factors were the final variable assessed in this section. In this regard, weighted aggregate elasticity was estimated at 0.0791, which demonstrated that a one-percentage change in the variable increased the possibility of employment to the unemployment of educated women in Afghanistan by 0.0791 unit. In addition, the marginal effect of the variable was reported to be 0.1355, an interpretation similar to the previous ones is conceivable in this respect.

The results of the comparison of the elasticities of eight variables affecting the barriers to the employment of educated women in Afghanistan presented in Table 5 showed that the social-personal variable had the most important in the possibility of employment to the unemployment of educated women in Afghanistan. Other significant variables included cultural-personal and economic-environmental variables. On the other hand, the least important variables were age and education level.

Table 5. Weighted aggregate elasticity and marginal effect of variables affecting the barriers to the employment of educated women in Afghanistan

| Variable | Weighted aggregate elasticity | Marginal effect |
|--|-------------------------------|-----------------|
| Number of family members (X1) | -0.0158 | -0.0271 |
| Number of people with an income (X2) | 0.0941 | 0.1612 |
| Age (X3) | 0.0124 | 0.0213 |
| Education level (X4) | 0.0584 | 0.1000 |
| Marital status (X5) | 0.0779 | 0.1335 |
| Economic-environmental factors (X6) | 0.1003 | 0.1718 |
| Economic-personal factors (X7) | 0.0070 | 0.0120 |
| Social-environmental factors (X8) | 0.0993 | 0.1702 |
| Social-personal factors (X9) | -0.1586 | -0.2718 |
| Cultural-environmental factors (X10) | 0.0130 | 0.0222 |
| Cultural-personal factors (X11) | -0.1222 | -0.2094 |
| Psychological and individual factors (X12) | 0.0791 | 0.1355 |

Source: Research Findings.

In this study, the LR test was applied in the Logit model to assess the significance of the model and goodness of fit. Given the statistic's value (80.306) and its significance level (0.000), the null hypothesis was completely rejected based on the zero value of all variables assessed in the study. According to the results, at least one of the descriptive variables had a significant effect on the possibility of effectiveness in unemployment of educated women in Afghanistan. The values of Cragg-Uhler and Mc fadden coefficients of determination were estimated at 0.138 and 0.228, respectively. According to these coefficients of determination, significant independent variables justified the pattern of a few percent of changes in the dependent variable, which was the possibility of

barriers affecting the employment of educated women in Afghanistan. In addition, the percentage of right predictions of the Logit model was estimated at 71.85, which was a favorable figure and showed right predictions of the model. The close the criterion's value to one, the better the model's goodness of fit.

Table 6. Statistics related to the Logit model's goodness of fit

| | |
|---------------------------------------|-----------------------------------|
| Percentage of right predictions=71.85 | LR= 80.306 (0.000) |
| Mc fadden R ² =0.138 | Cragg-Uhler R ² =0.228 |

Source: Research Findings.

6. Conclusion and Recommendations

In the present study, we assessed the barriers affecting the employment of educated women in Afghanistan. First, we reviewed various studies and theoretical foundations, which led to the classification of barriers to the employment of educated women in Afghanistan into two groups of structural (social) and non-structural (individual) barriers. In addition, the structural barriers were divided into three economic, social and cultural categories, whereas the non-structural barriers were classified as a psychological and individual situation. Notably, the factors in the group of structural barriers were considered from two personal and environmental aspects. Therefore, the factors were classified into seven economic-environmental, economic-personal, social-environmental, social-personal, cultural-environmental, cultural-personal and psychological and individual categories. In the next stage, the variables were reviewed and assessed by confirmatory factor analysis to determine factor classification accuracy. Afterwards, the new, categorized factors were recognized as independent variables along with age, education level, the number of family members, the number of people in the family with an income, and marital status. On the other hand, the barriers to the employment of educated women in Afghanistan identified as dependent variables were analyzed using the Logit model. The most important achievements of the current research are mentioned below. According to the results, 38% and 62% of the educated women in Afghanistan were employed and unemployed, respectively. In addition, the mean age of the women was almost 32 years, and most of the participants had a BSc degree. Moreover, the mean number of family members was six individuals, two of whom were employed and had an income on average.

According to the questions completed in the questionnaire, men are paid more than women in work environments, which decreases women's employment tendencies. The mentioned variable had the highest mean economic-environmental factor. According to the results, family's reliance on the income generated from the immigration of a family member reduced women's willingness to get a job. This variable had the highest mean in economic-personal factors. Among social-environmental factors, life-threatening risks (e.g., risk of bombs) decreased women's desire to work outside the home and had the highest mean in this regard. Furthermore, women's unfamiliarity with entrepreneurship methods became a barrier to their employment, which had the

highest mean in social-personal factors. Religious beliefs also hindered women's employment, and marrying foreign people decreased the possibility of women's employment outside the home. In addition, women gave up employment due to inability to defend their rights in the workplace. The aforementioned variables had the highest means in cultural-environmental, cultural-personal, and psychological and individual factors, respectively.

According to the results, the variables of the number of people with an income in the family, age, education level, economic-environmental, social-environmental, social-personal, cultural-personal and psychological and individual factors were identified as significant barriers to the employment of educated women in Afghanistan. On the other hand, the statistical insignificance of the variables of the number of family members, marital status, economic-personal, and cultural-environmental factors were statistically insignificant does not mean that they had no impact on the employment of educated women in Afghanistan. The results demonstrated that the number of people in the family with an income was the first variable affecting the employment of educated women in Afghanistan. In other words, more suitable conditions are provided for the presence of other family members, especially educated women, in the job market in families with a higher number of members with an income. This was in line with the gender-based theory and the human capital approach. In this respect, our findings are congruent with the results obtained by Arabmazar et al. [28].

According to the results, the variables of age and education level affected the employment of educated women in Afghanistan, which is consistent with the results obtained by Arabmazar et al. [28], Ejaz [29], and Evan and Kelley [33]. In other words, the higher the education level and age of the women, the better their employment situations. This is in line with the neoclassical theories, division of occupations in the domestic labor market, rational selection and non-discriminatory factors. According to the results, economic-environmental factors affected the employment of educated women in Afghanistan. In other words, improvement of the economic status in the society increases the need for workforce, especially the educated workforce, in Afghanistan, which provides an opportunity for entering women into the job market. In this respect, our findings are in accordance with the results obtained by Rezaei [22] and Sadi et al. [6]. Moreover, the results are in line with the structural theory affecting women's employment. Security and social-environmental factors were important issues affecting the employment of educated women in Afghanistan. In other words, as security conditions improve in Afghan society, it will be easier for people to participate in society, which will ultimately lay the foundation for employment. This is in line with the structural theory affecting women's employment, as well as the results obtained by Razzagh [23].

On the other hand, social-personal factors were the first factors with a negative effect on the employment of educated women in Afghanistan. In fact, the employment of educated women in Afghanistan has become difficult due to the lack of proper support from the family, lack of familiarity with entrepreneurial methods, and lack of necessary skills in women, the improvement of which

requires proper measures based on the structural theory affecting women's employment. In this regard, our findings are congruent with the results obtained by Sadi et al. [6] and Richard and William [31]. Cultural-personal factors also affected the employment of educated women in Afghanistan negatively, which means that the higher the family's prejudice and cultural weakness and common beliefs in Afghan society, the lower the employment rate of women. The structural theory of women's employment from the perspective of Islam also confirms this issue, and results obtained by Rezaei [22], Sadi et al. [6], and Alavizadeh et al. [14] are in line with our findings.

The final factor affecting the employment of women in Afghanistan was psychological and individual factors. The better the person is psychologically and individually, the better working conditions await them, which is in line with non-structural factors affecting women's employment. Employment from the Islamic point of view also emphasizes the importance and compatibility of work with women's spirits, and the results obtained by Sadi et al. [6] confirm this issue as well. Finally, according to the above mentioned discussions, practical and thematic recommendations are presented as follows:

A) Practical Recommendations

- Given the lack of trust of the people in the government of Afghanistan, it is suggested that civil society organizations be enhanced in Afghanistan so that they could build the necessary culture in the collective media. In addition, given the cash donations made to Afghanistan by international organizations, these funds can be spent on strengthening civic institutions in Afghanistan with proper planning and adequate oversight.

- Given the important role of education in the employment of women in Afghanistan, and since women comprise a considerable number of academic graduates, it is suggested that the technical and vocational skills of women be improved by the higher education ministry of Afghanistan in addition to providing a favorable education condition for this group of people.

- Given the low security in Afghanistan and its direct impact on employment, it is suggested that suitable conditions be provided for the employment of educated women in Afghanistan with the increase of security budgets and necessary measures by the relevant organizations in this field.

B) Thematic Recommendations

In this regard, it is proposed that qualitative and quantitative work be carried out by two working groups. The qualitative working group can:

1. Analyze the content of textbooks in terms of attention to the issue of women's employment
2. Qualify women's education in universities and its impact on their level of participation in the work market
3. Increase cultural awareness of women's employment in Afghanistan and their participation in economic affairs
4. Evaluate the effect of war and political instability in Afghanistan in the past decades on women's employment
5. Assess the effectiveness of policies adopted by the government of Afghanistan in the field of women's employment

Quantitative recommendations include:

1. Expansion of technical and vocational educational centers for women to gain the necessary skills for entering the work market
2. Evaluation of the role of post-literacy education in raising women's awareness in Afghanistan
3. Assessment of ways to improve women's level of literacy in Afghanistan.

References

- [1] Azarbaijani, M. (2009). Gender Justice and Women's Employment. *Women's Strategic Studies*, 12(46), 81-116. (In persian).
- [2] Safiri, Kh. (2003). Women's Employment in the Development of Job Satisfaction and the Type of Jobs, Women's Articles Collection; Participation and planning for sustainable development, (Tehran: Olive Leaf), 167-168. (In persian).
- [3] Alaoldin, P. and Razavi, M.R. (2004). The situation of women's participation and employment in Iran. *Social Welfare*, 3(12), 132-157. (In persian).
- [4] Azizi, F. (2017). Women's employment in cities, its problems and sufferings (a case study of the city of Rorcla in India). *Journal of Economic Research and Analysis*, 31, 81-87. (In persian).
- [5] Hajiani, H. (2006). A Study of Women's Employment in Marriage, Behnami Publications, Tehran. (In persian).
- [6] Sadi, H.A., Yaghoubi Farahani, A., Zoleikhaei Sayyar, L. and Ghahremani, F. (2017). Analysis of barriers and restrictions on employment of rural women (Case study: Tuyserkan city). *Journal of Rural Research and Planning*, 6(1), 35-48. (In persian).
- [7] Afghanistan Statistics Office Report, 2018. (In persian).
- [8] Kar, M. (1994). Women in the Iranian labor market. Roshangaran Publications, Tehran. (In persian).
- [9] Amini, A.R. and Ghanizadeh, F. (2010). An Analysis of Influential Factors on Women's Employment: A Case Study of Iran's manufacturing. *Journal of economics and modelling*, 1(2), 187-212. (In persian).
- [10] Amini, A.R. (2004). Gender approach to labor market imbalances, women's research. *Quarterly Journal of the Center for Women's Studies and Research*, 2 (1), 134. (In persian).
- [11] Zaferanchi, L.S. (2009). Investigating the situation of women's employment in Iran, the Center for Women's Affairs and the Family of the Presidential Institution. (In persian).
- [12] Asadzadeh, A., Mirani, N., Ghazi khani, F., Esmaeil darjani, N. and Honardoust, A. (2017). Investigating the role of employment and education of women on economic growth in Iran: Gravitational search algorithm and Firefly algorithm approach. *Women in development and politics*, 15(3), 359-381. (In persian).
- [13] Macpherson, M. & Brue, M. (2003). Labor market discrimination. contemporary labor economics.
- [14] Alavizadeh, S., Shamsoldini, A. and Hoseini, F. (2016). Investigating and analyzing the factors that prevent the employment of rural women in Kashmir. *Special letter for women and society*, 7, 195-218. (In persian).
- [15] Mahmoodian, H. (2003). Investigating the participation of women in the labor force in the provinces in the years 55, 65 and 75. *Social Sciences Letter*, 21, 189-218. (In persian).
- [16] Mosavi khamene, M. (1999). Women in the Development Process, M.Sc. Thesis, Tarbiat Modares University. (In persian).
- [17] Elmi, Z. (2004). Macroeconomic and labor market policies in Iran. *women Studies*, 2(2), 17-37. (In persian).
- [18] Farzi, Z. and Ranjbar, M. (2006). Women in Iranian Laws and Regulations, Massoud Ranjbar and Zohreh Farzi Publications, Tehran. (In persian).
- [19] Yazdkhasti, B. and Ahmadi, V. (2007). Investigating the status of women's activity and employment in Iran with emphasis on the 2006 census. *Journal of Women's Studies*, 1(3), 9-32. (In persian).
- [20] Jamshidi, M., Jamshidi, A.R. and Jamshidi, F. (2016). Prioritization of the most important employment barriers for the rural women in Chardavol Township. *Journal of Geography and Environment Studies*, 5(19), 117-128. (In persian).
- [21] Hadian, E. and Heidarpour, A. (1999). Economic development and the share of women in the labor force. Case of Iran 1963-1996. *Population Quarterly*, 27 and 28, 20-30. (In persian).
- [22] Rezaei, Z. (2014). Factors Preventing Women's Employment in Afghanistan (Case Study: Herat Province). Undergraduate Project, University of Herat. (In persian).
- [23] Razzaq, H. (2008). The employment situation of women in Afghanistan. Available at <http://www.jobportal.ir>. (In persian).
- [24] Savari, M., Shabanali fomi, H. and Sharifzadeh, M.Sh. (2017). Barriers to the development of rural women's employment in handicrafts in Divandere. *Quarterly Journal of Space Economics and Rural Development*, 6(3), 17-36. (In persian).
- [25] Sharifi, Z., Irvani, H. and Daneshvar ameri, Zh. (2015). Analysis of the Promoter and Preventive Factors on Development of Rural Women's Occupation in Najaf Abad City, 6(1), 1-20. (In persian).
- [26] Esmaeili, S. (2015). Investigating the social and cultural barriers of women's employment in the city of Ilam and providing solutions. Master Thesis, Faculty of Social Sciences, Allameh Tabatabai University. (In persian).
- [27] Madani, S. and Nejadfallah, M. (2014). Investigating the impact of women's employment on the family. *Behavioral Sciences*, 6(20), 153-173. (In persian).
- [28] Arabmazar, A., Alipour, M.S. and zareniakoki, Y. (2014). Analysis of socio-economic factors affecting women's employment in Iran. *Quarterly Journal of Economics and Modeling*, 4(17,18), 75-91. (In persian).
- [29] Ejaz, M. (2011). The determinants of female labor force participation in Pakistan: An instrumental variable approach, center for research in economics and business, labor school of economics.Germany.
- [30] Ahirrao, J., & Sadavarte, M.N. (2010). Social & financial constraints of rural women entrepreneurs:A case study of Jalna District in Maharashtra, *International Referred Research Journal*.
- [31] Richard, E. & Wiliam, P.B. (2009). Labor force participation of women in rural and urban China. *Rural Sociology*, 56 (1), 1-21.
- [32] Coen- Pirani, D., Leon, A., & Lugauer, S. (2009). The effect of household appliance on female labor force participation: evidence from micro data. *Journal of labor economics*, 17(3), 503-513.
- [33] Evans, M.D.R. & Kelley, J. (2008). Trends in womens labor force participation in Australia: 1984-2002. *Social Science Research*, 37(1), 287-310.
- [34] Lee, B., Jang, S., & Sarkar, J. (2008). Woman's labor force participation and marriage: The case of Korea. *Journal of Asian Economics*, 19(2), 138-154.
- [35] Zhang, Y., Hannum, E. & Wang, M. (2008). Gender-based employment and income differences in urban China: Considering the Contributions of marriage and parenthood. *Social force*
- [36] Kalantari, kh. (1999). Data processing and analysis in socio-economic research using SPSS software. Sharif, Tehran. (In persian).
- [37] Gojarati, D. (1999). *Fundamentals of Econometrics*. Translation: Hamid Abrishami. Tehran University Press. Volume II. (In persian).
- [38] Train K. (1986). *Qualitative choice analysis: Theory, econometrics and an application to automobile demand*. MIT Press.
- [39] Hensher D.A., & Johnson L.W. (1981). *Applied discrete-choice modeling*. John Wiley and Sons.
- [40] Whistler D. (2009). An Hntroductory Guide to SHAZAM. [www. Shazam.econ.ubc.ca](http://www.Shazam.econ.ubc.ca). Logit Results.

