

## **An Evaluation of the Impact of Development Process on Female Employment in Iran**

Zahra Pishgahifard<sup>1</sup>

Ali Ghanbari<sup>2</sup>

Samira Motaghi<sup>3</sup>

Afshin Motaghi<sup>4</sup>

**Abstract:** Human development and the importance of focusing on women's participation has become one of the main concerns and issues attracting the attention of many people. In fact, many gender-related models and patterns have been proposed in this regard.

Accordingly, this paper is an attempt to evaluate the effects of development process on women's participation in Iran using an econometrics method (OLS), and to show the impact of economic, social and cultural development from 1985 to 2004 on the employment of Iranian women.

The results of this study show that during this period, socio-cultural development had a positive effect on female employment while economic development had a negative impact.

**Keywords:** Iran. Economic development. Social development. Cultural development. Female employment.

---

1- Associate Professor, Department of Political Geography, e-mail: zfard@ut.ac.ir

2- Faculty Member, Department of Economics, e-mail: dr\_alighanbari@yahoo.com

3- Graduate Student, Department of Economics, e-mail: samira.motaghi@gmail.com

4- Graduate Student, Department of Geography, e-mail: afshin\_mottaghi@yahoo.com

## Introduction

Development process has been the concern of different societies for a long time. In fact, this concept initiated a course of events that followed the renovation of organizations, and a change of direction for the economic and social systems. Nevertheless, what is of utmost importance especially in countries which are considered as developing countries is how to promote full development in all aspects, human development in particular. The growing importance of human development has led governments to pay special attention to women's participation in various political, economic, social and cultural aspects. This change in the concept of development led not only to a reconsideration of social relations, but also the reconsideration of traditional concepts, for instance the discriminatory tendencies have being criticized by promoting and supporting non-gender specific patterns in developed countries. Many realities, such as the differences in the level of occupation of men and women, and their employment in managerial and political positions, were criticized and unappreciated.

The fact is that women constitute half of the world population. Therefore, in order to promote development, women should also take part and contribute into the process of development. However, women have unfortunately been ignored in different aspects (Alvani & Zarghami Fard, 2001). Therefore, the issues of women and their participation should be emphasized and explicated further.

One of important factors in the participation of women is their presence in the labor force. The results of many studies show that the level of women's participation in the labor force is on the rise. The share of women in the labor force has increased from 38% in 1970 to 41% in 1996 in the world (ILO, 1997). While this increase has mainly happened in developed countries, in many developing countries this increase is more in agriculture, domestic work. However, in some developing countries, Iran in particular, there has been a noticeable increase in women's participation in the labor force in the industry and services sectors (Moghadam, 2002). Some social indexes for women, such as fertility rate, birth rate, population growth rate, literacy rate for 15 year old women and older could also be identified. It can be concluded that some social patterns of Iranian women are progressing with the same pace as developed countries. However, in the case of women's employment, Iran is very different and distant from these countries (Hashemi, 2002).

Women's participation and its effect on the development process of countries is one of the important issues that has attracted the attention of many researchers, especially in the field of social sciences. However, in this study, an attempt is made to consider the effect of the level of development on Iranian women's labor force participation using a new approach. Therefore, the main question in this paper is "does development have a positive effect on the level of women's participation?" Respectively, the main hypothesis for this question is that "does development has a positive effect on women's participation" meaning that the more developed a country is, the higher level of women's participation in economic activities.

### **Review of literature**

Many studies have been carried out on the factors affecting women's employment. Katagay and Ozler (1883; 1995) analyzed the relationship between women's share of work force, and long-term economic development and structural reformation using OLS<sup>2</sup> method. Their conclusion indicates that reformative policies would worsen the status of income distribution, increase foreign trading, develop non-agricultural sectors, increase urbanization, increase levels of education, foster economic development, decrease fertility rate, and consequently, increase women's level of participation in the work force. As a result of these policies, women turn to the labor market to pay partly household expenses, and in this way, increase their level of participation in the labor market.

In an analysis of the rate of participation in Greece, Cottis (1992), referring to the features of developing countries, it is showed that the percentage of women's participation is influenced by and dependent on the percentage of unemployment, the percentage of employment in agriculture, percentage of urbanization, percentage of population growth, educational level and marital status. Population growth has a negative effect on women's participation while urbanization tends to increase it. Briscoe and Wilson (1992) certified that GDP has a positive effect, and rate of unemployment a negative effect on women's participation.

Farjadi and Falihi (1998) studied the rate of participation of women and concluded that work force participation is dependent on the rate of unemployment, educational level, inflation, and GDP. Hadian and Vahidpour (1999) investigated the relationship be-

---

2- Ordinary Least Square

tween economic development and women's share in the work force. In his research, on the relationship between GDP and investment and women's employment, Ale Yasin (1999) concluded that both GDP and investment have a positive effect on women's employment.

Sadeghi and Emadzadeh (2004), using an econometrics model, also concluded that there is a negative relationship between birth rate and female employment in Iran. The difference between this study and previous studies is that previous studies only considered the relationship between economic development and women's rate of participation, but in this study, it is intended to fit the dependent variable 'women's employment' onto the independent variables of economic, social, and cultural development indices from 1997 to 2005 using an econometric approach. The novelty of this project is the inclusion of all aspects of development (economic, social, and cultural).

In this study, there has been an attempt to present an appropriate theoretical framework to find out the short-term relationships between the effects of comprehensive development on women's employment. In the proposed patterns, the rate of GDP growth has been used as the economic development index, rate of social security index and the rate of higher education growth as the social development index, and the rate of book reading and the growth rate of radio and television broadcasting as the cultural development index. Gender aspects of development and the trend of its impact on women labor market participation are going to be examined. Iran's contribution to national development programs was on the agenda of national and international development organizations from 1970s, and many books were published in line with this movement. Nevertheless, what is of significance here is that women's role in development is often ignored, despite the efforts to involve women in development plans and projects. United Nations announced, at the beginning of 1990s that world was facing serious problems and shocking statistics came out as follows:

Women worked 67% of the world's working hours while they only got 10% of the world's income, and held only 1% of the world's wealth (Gender and Development Plans, 1994). Therefore, it can be argued that women's issue is a new area and field of study & inquiry, and has a limited analytical base (Women in Development Plans, 1998).

The same conditions pervade in Iran; according to the Census in 1996, women's rate of participation has decreased from 13% in 1976 to 12% in 1996 (Statistics Center of Iran, 1996). In the spring of 2002, the level of participation increased to 13% (Statistics Center of Iran, 2003). After Iranian Revolution and mostly during Iran-Iraq war (1980-88), family planning centers and nursery houses were closed, and the situation for women worsened.

In contrast to this period, as it mentioned, the situation started improving for women in 1990s in a way that according to the Census, female employment increased to 12.1% in 1996, but for various reasons, but the rate of unemployment also increased among Iranian women after 1996. The percentage of unemployed women in search of a job (especially those with a higher level of education) was much higher in comparison to men.

### **Development and its Dimensions**

Islamic Republic of Iran, as a developing country, enjoys some positive features and conditions that make its comprehensive development inevitable. This comprehensive development will not be achieved unless all dimensions of development have been identified and recognized. The dimensions of development include the following:

A) Economic development: The most obvious and quantifiable dimension of development, which has been focused on more than other dimensions, is economic development. Since 1960s, in addition to economic development, which used to be taken as the economic development index, some other indexes were proposed for explaining economic development that included some changes on social issues as well. Some of these indexes include GDP, per capita income, level of poverty, level of productivity for national capitals, rate of employment and life expectancy. The major indices are mentioned in this study however, only per capita income is used as the economic development index.

**Table 1: Rate of Economic Indices**

Years	Economic growth	GDP (1000 milliard Rs)	Per capita income (1000 Rs)	Annual growth of per capita income	Unemployment rate (percent)	Life expectancy (year)
1998	3.1	280.9	4.017	16.61	9.6	-
1999	3.7	316.6	4.469	11.30	9.11	-
2000	1.6	424.8	5.869	31.37	13.2	-
2001	5.0	576.5	7.795	32.84	14	-
2002	3.3	664.6	8.960	14.91	14.2	69
2003	7.5	916.5	11.989	33.92	12.8	69.1
2004	6.5	1095.7	14.031	18.3	11.3	69.2
2005	4.8	1095.7	14.031	25.3	11.10	69.3

Source: Statistics Center of Iran Yearbook and Eghtesade Iran Journal

It can be understood from the table that during this time, per capita income growth has not been very high (considering the annual population growth rate), and the registered figures vary and there has been no continuous and constant growth. It means that if one compares the economic development and per capita income with the percentage of unemployment rate, it can be seen that unemployment rate has always been higher than per capita income growth.

B) Social development: What is meant by social development is the patterns of interaction taking place in a any given society along with the development of the capital city (Tehran in this study). Social development includes a more comprehensive domain than other concepts such as development and economic growth. Among the components of the social development domain are social security, health, education and leisure time activities (Azkia & Ghaffari, 2004). In present study, the growth rate of the insured people under social security and the growth rate of higher education are taken as social development index.

**Table 2: The Social Security Index**

<i>Years</i> <i>Index</i>	1996	2000	2001	2002	2003	2004	2005
The population supported by social insurances (000)	4817	5974	6094	6374	6595	6904	7161

Statistics Center of Iran Yearbook and paper collections of Sazmane Modiriat va Barnamerizi

**Table 3: The Rate of Health Index**

Year	1998	1999	2000	2001	2002	2003	2004	2005
The ratio of physicians to population (every one thousand people)	0.84	0.90	1.01	1.05	1.12	1.19	2.17	2.47
The death rate of children below 5 years old	39	37	37	36	36	35	34	34
The number of clinics (public or private)	5821	6101	6389	6980	7089	7345	7621	8020

Statistics Center of Iran Yearbook and paper collections of Sazmane Modiriat va Barnamerizi

**Table 4: The Rate of Education Index**

Year	Higher education (no.) (1000)
1999	638
2000	678
2001	739
2002	759
2003	809
2004	923
2005	1098

Statistics Center of Iran Yearbook and paper collections of Sazmane Modiriat va Barnamerizi

As the statistics in the above tables indicate, during this time some changes have occurred in the triple indices. Social security index had little change despite its importance in improving people's lives. On the other hand, there was an increase in the health index and higher education had a higher growth rate during this period.

C) Cultural development: In one hand cultural development is a process during which special characteristics and abilities are developed by making changes in the people's understanding, cognition, values and attitudes. The result of these characteristics, beliefs and abilities is a special pattern of behaviors and interactions appropriate for different conditions. On the other hand, cultural development is indicated by the higher level of access to knowledge sources, education for people and providing them with enough support in this regard. Therefore, the related measurable indices might be the level and size of cultural products (books, newspapers, and T.V. channels), people's willingness to take part in cultural and civil activities, leisure times, and the importance of education and acquiring skills in life.

In the present study, the growth rate of book reading and growth rate of hours of radio and television broadcasting are considered as the cultural index.

**Table 5: Rate of cultural indices**

Year	Newspapers (no.)	Books (no.)	Radio and television programs (hours)
1998	1012	14017	117269
1999	1144	15960	131286
2000	1286	20642	266893
2001	1532	23305	290500
2002	1747	31660	121975
2003	2191	34550	292007
2004	3186	36462	317345
2005	-	40920	333545

Statistics Center of Iran Yearbook

As the table shows, cultural products have shown an increasing trend in this period of time, but from the point of quality dimension, some indices such as cultural and civil activities, or life skills have been ignored; since no investigations have been made or no statistics are available on their quantity and quality in the



state institutions. In fact, despite the effect and the role they play in the cultural development process, they have been ignored all the time.

D) Political development: This domain is one of the most controversial aspects of development for which there are various definitions and indices not generally agreeable to all. Formation of a national government is regarded as a precondition for development in all aspects, increasing the efficiency of the government and people's participation in the political processes are considered important. Hussein Bashirieh (2005) defines political development being equal with democracy, participation and competition in policy making process. Therefore, development is indicated by promoting the abilities of the political system to fulfill the functions it has with an emphasis on public participation and competition. The process of political development has a direct effect on other dimensions of development; therefore, any increase in political development encourages promotion in other aspects of development. On the other hand, because there are no special agreed-upon indices for this domain, one cannot estimate the level of development in this domain and its effects.

### **Model**

The method used in this study is based on regression patterns that not only shows the negative or positive correlation between the independent and dependent variables; but also indicates exactly the level of impact of every single independent variable on the dependent variable. The data and information related to women's rate of employment, growth rate of national income, growth rate of social security index, growth rate of higher education index, growth rate of book reading and growth rate of radio and television broadcasting hours are collected from the 'Statistics Center of Iran Yearbook', the Eghtesade Iran Journal and websites related to Banke Markazi (The Central Bank).

The appropriate related patterns in this study include:

$LF = f(LY, LB, LEDU, LBO, LT, W)$

LF: level of female employment

LY: growth rate of national income LB: growth rate of social security index

LEDU: growth rate of higher education

LBO: growth rate of book reading

LT: growth rate of radio and television broadcasting

W: virtual variable representing the time of war (against Iraq) which takes 1 in years of war and 0 during peace.

The related model is as follows:

$$LF = \alpha_0 + \alpha_1 LY + \alpha_2 LB + \alpha_3 LEDU + \alpha_4 LBO + \alpha_5 LT + \alpha_6 W + U$$

The results of initial estimation of the model during the period from 1983 to 2004 using OLS is as follows:

$$LF = -0.385 - 3.29 LY + 2.19 LB + 2.99 LEDU + 1.08 LBO + 0.28 LT - 0.7W$$

(-2.41)      (-3.93) (0.92) (2.07) (1.63) (2.43) (-2.32)

R<sup>2</sup> = 0.84      D.W = 1.64      Pr (f) = 0.00

## Results

According to the findings of this study, in the 20-year period (1983-2004), there is a negative relationship between growth rate of national income and female employment.

It can be observed that there has been a 3.29% decrease in female employment in Iran as a result of every 1% increase in the growth rate of GDP. This finding is inconsistent with the results of other studies.

According to the statistics from Statistics Center of Iran, during the years from 1966 to 1976, the number of employed women increased from 943,300 in 1966 to 1,212,000 in 1976 and the share of women in employment increased.

The positive attitude of the society towards the increasing trend of female employment in the labor market and the low unemployment rate led to the growth of female employment in a decade (1966-1976). But during the years from 1976 to 1986, the Islamic Revolution, entered in an imposed war by Iraq and the sanctions against Iran led to a considerable increase in unemployment rate in the whole society, especially for women, such that the number of employed women declined to 975,300 which amounted to only 8.9% of the total employment. At the end of the war, the dominant attitude in the labor market changed in favor of women, the number of employed women increased to 1,231,200, and the proportion of female employment to the total employment increased to 9.4%. From 1991 to 1996, the

number of employed people reached 14,571,600 of which 1,765,400 were women indicating that the proportion of employed women increased to 12.1%.

As estimated in the model, GDP growth has a considerable impact on decreasing women's rate of employment in Iran. As this criterion is taken as the economic development index in this study, it can be said that in this period, economic development caused a decrease in the growth rate of female employment in Iran. It means that the higher the economic development in Iran, the lower the women's rate of participation in economic activities.

On the other hand, as it can be observed, there is a positive relationship between the growth rate of higher education and the rate of female employment. Based on the estimated model, a 1% increase in the growth rate of social security index leads to a 2.10 percent increase in female employment in Iran. Therefore, it can be concluded that growth rate of social security index is one of the most important and most influential factors influencing female employment in Iran.

For explaining the above concept, it can be said that social security such as insurance provided by private employers is one index in which the employer is bound and committed to insure the employee. This creates a positive feeling in the workers that despite their low income, they feel inclined to participate in the labor market due to the advantages and benefits of insurance while working, unemployment insurance, and advantages they get after retirement. Therefore, with more insurance guarantees, the more women will turn to work outside the home, and employment rate will therefore increase. In addition, a 1% increase in the growth rate of higher education leads to a 2.99 increase in female employment. This clearly shows that if the growth rate of higher education in Iran is higher, the female employment will consequently be higher, because this increase in the growth rate of higher education is followed by an increase in women's level of education. According to the statistics, the contribution of employed women with a high level of education to the total educated employed population in years of 1966, 1976, 1986, 1996 and 2001 was 11.6%, 23.2%, 22.8%, 27.7%, and 28.09% respectively, indicating rising rate of women's participation in higher education levels. In this regard, a growth in education not only creates jobs for women, but leads to an increase in their share to the household expenses, as this growth in education directly affects and increases their income.

These factors clearly show that a growth in social security and higher education indices have a considerable effect on female employment. Since the effects of these two variables (social security index and higher education index) are considered, it shows that Iran has good social development conditions, subsequently the women's rate of participation increases proportionally.

Finally, regarding cultural development indices indicated by growth rate of book reading and hours of using radio and TV programs, it can be said that the more the growth rate of book reading and radio and television broadcasting hours (which are among the important factors in the transmission of culture in a society), the more culturally developed a society is believed to be. In the estimated model of this study, the results confirm the fact that these two factors have a positive impact on female employment in Iran. In other words, a 1% increase in the growth rate of book reading leads to a 1.08% increase in Iranian women's rate of employment and a 1.08% increase in using radio and television programs results in a 0.28% increase in female employment in Iran. Clearly, all these factors have had a positive effect on women's rate of employment during the studied period. It can be concluded that cultural development does have a positive relationship with women employment. The virtual variable related to the Iran-Iraq war has a negative relationship with women's rate of employment. The effect of which is very clear, because in war conditions, every country allocates its budget to defend itself, and consequently working conditions become very difficult for everyone, especially women.

In this way, the present model shows the effect of different development indices on female employment in Iran. In addition, all estimated coefficients are meaningful. R<sup>2</sup> Pearson value is clearly indicative of the fact that the fitted model is adequate based on the presented data. Furthermore, according to the Durbin-Watson statistic, the presence of serial correlation between errors is found to be insignificant. In this estimation, autocorrelation problem is corrected and the model is specified as follows:

$$LF = - 5.22 - 2.49 LY + 8.73 LB + 2.0LEDU + 8.48 LBO + 2.49 LT - 0.7W + 1.57AR \quad (1)$$

$$R^2 = 1 \quad D.W = 2 \quad Pr(f) = 0.00$$

## Conclusion

As women constitute half of the population, if they become excluded from social activities it results into not benefiting from the full productive potentials of the society, inefficiency in allocating resources, and in a more general sense, not achieving full development. Therefore, in order to achieve sustainable development in a country like Iran, an increase in women's participation, economic fields in particular, is essential. Accordingly, developments in social (social security index growth and higher education growth) and cultural aspects (increase in radio and television programs users and book readers) are very helpful and make a significant contribution to estimate the index.

Therefore, according to the findings of this study, the followings are recommended: considering the positive effect of the social development indices (growth rates of social security and higher education) and the cultural development indices (growth rates of book readers and radio and television programs users on the dependent variable of this study (female employment), it is recommended that statesmen take cultural and social development as the key to their success in the moves forward towards human development. As shown in this study, economic development has a negative impact on female employment in Iran, thus, the government should be determined to educate people culturally about the important role women play in economic growth.

## References

Azkiya, M. & Ghaffari, G. (2004). *Jame'e shenasie tose'e*. Tehran: Keihan Publications.

Bashirieh, H. (2005). *Dar astaneyeye anomie siasi dar Iran*. Majmu'e Maghalate Hamayeshe Siasatha, va Modiriate Barnamerizie Tose'eye Iran (2nd vol.). Tehran: Moasseseye Amuzesh va Parvareshe Sazmane Modiriat va Barnamerizi.

*Breaking through the glass ceiling: Women in management*. (1997). Geneva: ILO.

Briscoe, G. & Wilson, R. (1992). Forecasting economic activity rates. *International journal of Forecasting*, 8.

Cagatay, N & Ozler, S. (1995). Feminization of the labor force: The effects of long-term development. *World Development* 23/11.

Clark, R. L. & Anker, R. (1990). Labor force participation rates of older persons: An international comparison. *International Labor Review*, 129.

Daftare Omoure Zanane Riasat Jomhouri (Presidential Office of Women's Affairs) and UNISEF (1998). *Ravande gozashte, jari va ayandeyenegarie 10 saleye jamiate Iran (1375-1385)*. Mostanadate Barnameye Sevom.

Daftare Omoure Zanane Riasat Jomhouri (Presidential Office of Women's Affairs) and UNISEF (1999). *Ravande gozashte, jari va ayandeyenegarie 10 saleye jamiate Iran (1375-1385)*. Mostanadate Barnameye Sevom.

Farjadi, G. & Falihi, N. (1998). *Prodgeye nirouye snsani, amouzesh va bazare kar*, 6th Report. Tehran: Moasseseye Alie Pagduhesh dar Barnamerizi va Tose'e.

Hadian, E. & Heidarpour, A. (1999). *Tose'eye Iran va sahme zanan dar nirouye kar: Morede Iran 1352-1375*, *Jamiat*, 27 & 28.

Hashemi, S. (2002). *Eshteghal yeki az mohemtarin chaleshaye zanan dar jame'eye konounie Iran*. Paper presented at the Education, Female Employment and National Development Conference in University of Mazandaran.

Moghadam, V. (2002). *Enhancing women's economic participation in the MENA region*. Cairo: The American University of Cairo.

Sadeghi, M. & Emadzadeh, M. (2004). *Pajouheshe Zanan*, 1, 5-22.

Statistics Center of Iran (1996). *Salnameye Amarie Iran*. Tehran: Statistics Center of Iran.