

The Effects of Trade Integration, Globalization and Foreign Direct Investments on Employment in Iranian Manufacturing Sector

Monireh Rafat^{*1}

Received: 2017, August 15 Accepted: 2017, November 5

Abstract

This paper focuses on two major aspects of globalization: international trade and FDI and their impacts on manufacturing employment in Iran and study whether foreign direct investment and trade expansion with Asian and European partner played any role in shaping the Iranian manufacturing employment structure.

This study incorporates globalization (KOF index), trade integration and FDI into a single model and uses a system GMM estimator, which is more appropriate for a short panel dataset than the static or first differenced GMM estimator.

Result show that foreign direct investment corresponds positively to Iran's manufacturing employment in both Asian and European trade partner. The findings show that globalization in Iran and Asian partner has no significant impact on employment. In terms of trade expansion, the role of bilateral exports with European partner is stronger than Asian partner.

Keywords: Economic Integration, Foreign Direct Investments, Employment, KOF Index, System GMM Estimator.

JEL Classification: F12, F23, F02.

1. Introduction

Globalization is a pattern out of border activities that brings about international investment, flows of foreign trades, development of information and technology, income convergence and enhancement of financial markets (Tayebi and Eshraghi (2010)). The increased economic globalization has resulted in multinational enterprises (MNE_s) making huge investments in the shape of foreign direct

1. Department of Economics, University of Isfahan, Isfahan, Iran (Corresponding Author: m.rafat@ase.ui.ac.ir).

investment (FDI). The inflow of such FDI is perceived to be generating employment opportunities in the host country economy. Therefore, different countries have been offering different incentives in order to attract these multinational firms to do business in the country.

The FDI have the potential to generate employment through direct hiring of people for plants, which means they improve aggregate domestic employment through types of jobs created, regional distribution of new employment, wage levels, income distribution and skill transfer (Mickiewicz, Radosevic and Varblane (2000).

In general, inflows of FDI are not necessarily associated with a net generation or displacement of employment to such an extent as to have an significant influence on the aggregate level of employment.

On the other hand, potential consequences of the progress in global and regional economic integration in the second half of the twentieth century have found increasing attention in the economic literature. The impact of globalization and regional economic integration on employment is a central issue of contemporary political economy. From the point of view of workers in developed countries, although globalization is often seen as a threat, increased employment in developing countries is seen as a major contribution to reducing poverty (Rama, 2003). Especially in developing countries the importance of the relationship between regional economic integration and employment is increasing. This relationship is surprisingly difficult for many reasons, because regional economic integration is a multi-faceted phenomenon, and each facet may have different effects on employment, varying by country, time, industry, policies and the like.

Empirical research has given much more attention to the effects of trade on labor markets than to the impacts of FDI (Jenkins, 2006). This paper focuses on two major aspects of globalization, international trade and FDI and their impacts on manufacturing employment in Iran. The focus of this study is on key questions: What are the impacts of trade expansion and FDI inflows on employment in Iran?

The rest of the paper is organized as follows. Section II specifies theoretical basis of trade and FDI's impacts on employment. Section III discusses literature review. Section 4 proceeds with the model

specification. Section five discusses the data and estimation method. Section 6 presents the estimation result. The final section brings forward conclusions.

2. Foreign Direct Investment and Employment

FDI often generates new employment (direct employment is higher in green field investments) and creates jobs (indirectly) through forward and backward linkages with domestic firms. Estimates for a number of developing countries indicate that FDI has a multiplier effect on domestic employment. Jobs created directly by setting up new foreign affiliates or expanding existing affiliates, and indirectly by stimulating additional employment in suppliers and distributors. Indirect effects are on the whole positive and substantial. They can generate the same or more jobs than TNCs create directly. A number of studies which estimated indirect employment effects for individual MNC subsidiaries in some developing countries showed that the number of jobs generated indirectly depended on the industry. The possible effects of FDI on the labor market in a host country shows table 1.

Table 1: The Range Of Potential Effects Of Inward FDI On Employment

	Direct-Positive	Direct-Negative	Indirect-Positive	Indirect-Negative
Quantity	Adds to net capital and creates jobs in expanding industries	Acquisitions may result in rationalization and job losses	Creates jobs through forward and backward linkages and multiplier effects in local economy	Reliance on imports or displacement of existing firms results in job loss
Quality	Pays higher wages and has higher productivity	Introduces practices in e.g. hiring and promotion that are considered undesirable	Spillover of “best practice” work organization to domestic firms	Erodes wage levels as domestic firms try to compete
Location	Adds new and perhaps better jobs in areas with high unemployment	Crowds already congested urban areas and worsens regional imbalances	Encourages migration of supplier firms to areas with available labor supply	Displaces local producers, adding to regional unemployment, if foreign affiliates substitute for local production or rely on imports

Source: UNCTAD 1994, table IV.1.

FDI may have direct and indirect as well as quantitative and qualitative effects on employment, each of which may be positive or negative.

When the investment is done through a greenfield investment it expected job creation. A new business is founded, which requires human capital input and therefore creates jobs. When we regard the other entry mode, merger or acquisition, a few different scenarios are possible. The transfer of control from domestic to foreign ownership may mean one of a few things. Either jobs are created. Either because the business expands because of the new investment, or because without the foreign investment the corporation would face closure. The level of jobs are maintained, because the investment requires no change in human capital. Or, and this is often the most likely scenario, jobs are destroyed. Because the new foreign control means a restructuring of the corporation resulting in job loss. All this is of course an oversimplification of the possible direct outcomes of foreign direct investment.

In addition of having a direct effect, foreign direct investment can also have a number of indirect effects on employment. Domestic firms in the host country that are vertically linked to foreign controlled entity, such as suppliers, subcontractors, consultants and buyers, are likely to see a positive effect on employment when the investment increases the demand for local inputs. The foreign entry gives rise to an increase in competition forcing local firms to become more efficient, if they manage to do so these business may flourish creating new employment opportunities.

An important factor in indirect employment creation through foreign direct investment is the amount of local linkages the foreign controlled entity may or may not have or will succeed or fail to develop in the future. The input-provision, derived demand, or backward linkage effects, i.e., every non primary economic activity, will induce attempts to supply through domestic production the inputs needed in that activity.

The output-utilization or forward linkage effects, i.e., every activity that does not by its nature cater exclusively to final demands, will induce attempts to utilize its outputs as inputs in some new activities.

To put more simply and apply the concept directly to foreign direct

investment, local linkages arise when the activities of the foreign controlled entity induces local firms to produce inputs for the foreign entity (backward linkage). Or when the foreign entity does not supply in final demand, it may induce local firms to utilize their outputs.

Largely interrelated to the concept of linkages is that of firm entry and exit. For instance strong linkages may lead to an increase in firm entry. The consequences of foreign direct investment on the possible entry and exit of local firms is an interesting subject by itself with regard to employment. Evidently if a crowding out effect of domestic firms exists this would mean a negative partial effect on employment, since the reduction of local firms would mean a loss of jobs for the employees of those firms. In turn a crowding in of local firms would mean an additional creation of jobs. Much research has been done on the subject.

When we consider the effects of foreign direct investment on the quality of employment there are different things to consider. According to the literature foreign direct investment may or may not cause a large array of different spillovers. Affecting in a multitude of ways the wages, the productivity, education, labor conditions, job satisfaction etcetera of workers. The focus here will be on the wages and the productivity of workers.

Foreign direct investments can have an effect on the wages in a few different ways. However most of the literature converges on the fact that foreign-owned corporations seem to offer higher wages than their domestic counterparts.

Productivity in the host country can be raised by foreign direct investment through a number of different channels. First through their own productivity. According to Hymer (1960) foreign firms are required to have some advantages that allow them to overcome the additional costs of becoming a multinational. Since foreign direct investment often populates industries with a high threshold for entry it may pare down monopolistic distortions, leading to higher productivity by improving their allocation. There can be movement of highly skilled employees from the foreign firms to domestic firms, improving the efficiency of indigenous firms. 'Demonstration effects' may occur, where domestic firms learn from foreign owned firms or copy utilized technologies. An increase in competition by

multinational entry may force the domestic firms to become more productive by raising the efficiency of their resource usage or update their technologies and techniques, which is referred to as the competition effect.

Foreign direct investment might have an influence on the location and distribution of employment of a country or region. Foreign entry may be in areas of high unemployment therefore potentially redistributing the employment in a more uniform manner. Or the opposite might be the case, that multinationals enter in areas which already have an abundance of labor demand making the regional imbalance even greater. Indirectly the effects can be enhanced or countered through for instance linkages with local suppliers.

Various research has been done on the location choice of foreign direct investment. Determining the factors that influence the choice of location for foreign direct investment. Some deal with the choice between countries others focus on the location choice within a country. An inflow of foreign direct investment in a certain area will have a direct effect on employment demand in that area. Whether or not this partial fluctuation in demand is in fact additional demand or merely a geographical shift in demand from other areas towards the area with the investment inflow is not the focus of this chapter. This issue is more related to total employment demand and has already been touched upon in the previous chapters.

Though the literature exploring the subject of foreign direct investment location choice is vast, there is far less literature, or rather almost none, available with a focus on how this affects employment location and, or, distribution. Since most literature revolves around the determinants of location choice, and not the consequences of the ensuing choice it is difficult to determine the effects for the location of employment. Completely reviewing all possible determinants of location choice might prove interesting, but would go beyond the scope of this paper. Some articles however make mention of factors highly related to employment location, which makes it possible to make some inferences, though weak, on the effects of foreign direct investment on the location of labor.

3. Literature Review

Mariotti et al. (2003), investigate the impact of outward FDI on the labor intensity of domestic production at firm level in the Italian case. They conclude that the impact is negative in the case of vertical investment in less developed countries, and positive for horizontal and market-seeking investment in advanced countries.

Mojtahed and Hassanzadeh (2003), use panel data across Iran ISIC manufacturing industries to FDI spillover effects on employment in these industries. The results show that FDI inflow increase employment especially for higher skilled individuals and petroleum sector. Spillover effect is not significant in other industries. Because their productivity gap between domestic and foreign firms in this industries is very big or no FDI inflow has occurred in these industry.

Nessabian (2006), by using panel data and FDI statistics, estimated labor demand function for three economic sectors (agriculture, industry and services) in Iran. The results show that the outcome of FDI during the study is not significant. But this effect on the skill labor in services sector is positive and in industrial sector is negative. The reason for this difference in industrial sector is using of old technology and in services sectors is high education.

Komijani and Ghavidel (2006), analyses one of the effects of the economic Globalization process that is the inflow of foreign direct investment on the employment of the sub-sectors of the service sector in Iran. For this purpose the impact of the gap between labor productivity in service sector of Iran and developed countries on the ratio of the skilled over unskilled labor (at the time of the multinational corporation entrance to the economy) is studied by using a panel data during the period of 1997-2004. The findings indicate that by entering the multinational corporations to the economy the active companies in various fields of service sector employ skilled labor which will lead to the greater labor productivity and consequently the domestic companies can compete better with the foreign companies (spillover effect). The real-state and small business actives have the first rank in employing the skilled labor and improving the ratio of skilled over unskilled labor

Jenkins (2006), consider the impact of foreign direct investment on employment in Viet Nam, a country that received considerable

inflows of foreign capital in the 1990s as part of its increased integration with the global economy. Despite the significant share of foreign firms in industrial output and exports, the direct employment generated has been very limited because of the high labor productivity and low ratio of value added to output of much of this investment. His article also shows that the indirect employment effects have been minimal and possibly even negative because of the limited linkages which foreign investors create and the possibility of “crowding out” of domestic investment.

Rizvi and Nishat (2009), raised the question whether foreign direct investment (FDI) contributed to employment generation in India, China and Pakistan during 1985-2008? The estimation of the

impulse response shows that the growth elasticity of employment on average in the three countries is extremely low and employment enhancing policies must be priorities. Employment growth will not occur in these three countries as a spontaneous consequence of growth in GDP. As rising formal sector unemployment especially of technical and professional manpower is becoming an increasingly important problem in all three countries.

Debaere et al. (2010) investigated the employment effect by using South Korea firm-level data. They conclude that that moving to less-advanced countries decrease company's employment growth rate especially in the short run. On the other hand, moving to more-advanced countries doesn't consistently affect employment growth in any significant way.

Vacaflares (2011), examines the effect of foreign direct investment (FDI) on employment generation for a group of Latin American countries in the period 1980-2006 and finds that FDI has a positive and significant effect on the employment generation in host countries, which is driven by its effect on male labor force. This positive effect is particularly important for less developed economies, periods with low inflation, and for the later period of the sample, but suggests that only countries with high level of informality and those attracting low average inflows of FDI accrue this benefit.

Shaari et al. (2012), examined the impact of foreign direct investment on unemployment rate and economic growth in Malaysia. They investigated that FDI helps to reduce unemployment rate and

enhances economic growth (GDP) in Malaysia.

Mucuk et al. (2013), explored the relationship between foreign direct investment and unemployment for seven developing countries . Results showed that foreign direct investment and unemployment move together in long run. FDI increases unemployment in Turkey and Argentina while reduces it in Thailand. They also suggested that negative effects of FDI on unemployment are due to brownfield investments which are composed of acquisitions and mergers, so policy makers should focus on Greenfield investments to create more job opportunities.

Habib and Sarwar (2013), analyzed the impact of foreign direct investment on employment level in Pakistan during the time period of 1970-2011. The study revealed that FDI has a positive significant effect on employment level in Pakistan

Fadaee and Kazemi (2013), analyze the effects of foreign direct investment (FDI) on job creation in Iran. By specifying an econometric model, the relations between the variables have been estimated by ARDL model. The results of research show that, foreign direct investment directly and meaningfully influences the economic growth to the extent that it improves the process of job creation opportunities in short run (0.1286) and long run (0.1261).

Brincikova and Darmo (2014) analyze the impact of FDI inflow on employment of V₄ countries by using panel data. Paper discusses implications of FDI analysis and tries to verify the positive effect of FDI inflow on employment in V₄ countries. Results show that there is no statistically significant impact of FDI inflow on employment.

Sayed Noorae and Mohamadpoor (2016) believe due to the importance of foreign direct investment and the expansion of the process of globalization, all countries try to attract foreign investment. Foreign direct investment has direct and indirect effects on employment. Since the FDI is a source for attracting capital, it can directly increase employment. Also FDI by transferring the new technology, management skills and knowledge and their spillovers, may lead to increasing the competitiveness, enhancing the labor knowledge and productivity, increasing production, improve the balance of payment, which indirectly increase the demand for labor and thus employment. They examined the effect of FDI on

employment for 49 countries (OECD and developing countries) during 1990-2013 by using panel data. The results show that FDI has a positive effect on employment in OECD countries and a negative effect on employment in the developing countries.

4. Model Specification

Based on the Cobb-Douglas production function, this paper investigates the impact of trade expansion and FDI on employment in the manufacturing sector in Iran using a system GMM estimator. The Cobb-Douglas production function shows physical output as a function of labor and capital inputs, that is:

$$GDP_{it} = A^\gamma K_{it}^\alpha L_{it}^\beta \quad (1)$$

where:

i denotes country

t denotes time

GDP represents gross domestic production

A represents total factor productivity (TFP).

K represents capital stock

L represents units of labor utilized

α and β denote factor share coefficients

γ allows for growth in efficiency in the production process

By profit-maximizing, the marginal productivity of labor equals the wage (w) and the marginal revenue product of capital equals its real cost (C). Solving this system simultaneously yields the following equation:

$$GDP_{it} = A^\gamma \left(\frac{\alpha L_{it}}{\beta} * \frac{W_{it}}{C_{it}} \right)^\alpha L_{it}^\beta \quad (2)$$

Taking logarithms to linearize and rearrange the equation (2) provides demand for labor as:

$$\ln L_{it} = b_0 + b_1 \ln \left(\frac{W_{it}}{C_{it}} \right) + b_2 \ln GDP_{it} + \varepsilon_{it} \quad (3)$$

Where

$$b_0 = -\frac{(\gamma \ln A + \alpha \ln \alpha - \alpha \ln \beta)}{(\alpha + \beta)}, b_1 = -\frac{\alpha}{(\alpha + \beta)_t}, b_2 = \frac{1}{(\alpha + \beta)}$$

and ε_{it} is a disturbance term.

Regarding the total factor productivity (TFP), A , one may expect that TFP of the production process increases over time and that the rate of technology adoption and the increases in efficiency would be correlated with trade expansion and FDI inflows via pressures of competition in the international markets and knowledge spillovers from FDI-funded imports and other foreign contacts. This can be partly explained by the fact that the FDI inflows are not only a source of capital, but also a supplier of technology transfer. Therefore, parameter A is hypothesized in the production function, which varies with time in the following manner:

$$A_{it} = e^{\delta_0 T_i} X_{it}^{\delta_1} M_{it}^{\delta_2} FDI_{it}^{\delta_3}, \quad \delta_0, \delta_1, \delta_2, \delta_3 > 0 \quad (4)$$

Where,

T is time trend

X is export intensity index of country i in year t (measured by export-output ratio)

M is import penetration index of country i in year t {measured as a share of apparent consumption (is measured as domestic production + imports – exports)}.

FDI is the inflows of foreign direct investment of country i in year t .

Therefore, the labor demand equation can be derived from the combination of (3) and (4) as follows:

$$\ln L_{it} = b_0^* - c_0 T - c_1 \ln M_{it} - c_2 \ln X_{it} - c_3 \ln FDI_{it} + b_1 \ln\left(\frac{W_{it}}{C_{it}}\right) + b_2 \ln GDP_{it} + \varepsilon_{it} \quad (5)$$

Where,

$$b_0^* = -\frac{\alpha(\ln \beta - \ln \alpha)}{(\alpha + \beta)}, c_0 = \gamma \delta_0, c_1 = \gamma \delta_1, c_2 = \gamma \delta_2, c_3 = \gamma \delta_3$$

5. Estimation Method and Data

In the light of the model specification and paper purpose, we consider model as follows:

$$L_{it} = F(GDP_{it}, (W/C)_{it}, EX_{ijt}, KOF_{it}, FDI_{it}) \quad (6)$$

Where GDP represents the gross domestic production,

W/C is the compensation per employee

EX: stands for the bilateral trade between Iran and its partner, and is used as a proxy for trade integration (Regarding the trade effects, to avoid multicollinearity problems we estimate the export effects alone).

KOF: stands for globalization index. This index is a criterion of globalizing economy, social, and political variables. Social globalization index had the highest weight of 38%. This index included 3 indices: the information about global communication, information flow, and cultural index. Economic globalization index had the next rank with 36%. This index includes capital and trade flow and limitations like different tariffs. Political globalization index had the third rank with 29%. Table 2 shows the indices and their weights in globalization index of KOF (%).

FDI: is foreign direct investment,

L :stands for manufacturing labor force.

The subscript t (= 1,...T) is the period of time (year).

The subscript i,j (=1,2,...) is countries that are main Iran trade partner. Since the origin or destination of trade, whether it is a low wage or high wage country with similar factor composition may affect the direction of the impact, we differentiate Iran trade partner from Asian countries and European countries. Selected countries are:

Table 2: Indices and Weights of KOF (%)

Economic globalization	36
Real flows	0.5
Trade (% of GDP)	16
Investor of direct foreign capital, flows (% of GDP)	21
Investor of direct foreign capital, share (% of GDP)	23
Portfolio investment (% of GDP)	19
Income payment to foreign governments (% of GDP)	22

Table 2: Indices and Weights of KOF (%)

limitations	50
Imports hidden barriers	24
Tariff rate mean	28
International trade tax (% of current income)	28
Capital deposit limitations	20
Social globalization	38
Personal communication statistics	29
Foreign Telephone rate	40
Transfers (% of GDP)	8
International tourism	27
Foreign population (% of total population)	25
International letters	27
Statistics of information flow	35
Internet host (for every 1000)	20
Internet users (for every 1000)	24
Cable TV (for every 1000)	20
Trade in newspaper (% of GDP)	14
Radios (for every 1000)	23
Cultural closeness Statistics	37
Number of Mc Donald restraints (for every capital)	40
Ikia agency number (for every capital)	40
Book trade (% of GDP)	20
Political globalization	26
Ambassy number	35
Membership in international organizations	36
Attending security counsel of UN	29

European partner: Austria, Bulgaria, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Poland, Portugal, Sweden, Spain and United Kingdom.

Asian partner: Azerbaijan, China, Indonesia, Japan, Kazakhstan, Korea, Malaysia, Pakistan, Philippines, Singapore, Tajikistan, Thailand, Turkmenistan, Turkey, Uzbekistan.

The main data were derived from the World Development

Indicators (WDI) and UNCTAD. UNCOM TRADE was used for bilateral trade data. All data for the period 1994–2015 were measured in current US dollars. Because of the lack of statistical data in Iran bilateral FDI with its partner, there used just net inflow of FDI.

6. Estimation Result

Many economic relationships are dynamic, and one of the advantages of panel data is that they allow researchers to understand the dynamics of adjustment (Baltagi, 2001). These dynamic relationships are characterized by the presence of lagged employment among regressors. To take adjustment processes into account, time lags are also introduced for the independent variables.

Tables 3 report the results of one-step GMM estimations of Equation (6) for Iran manufacturing sector. The estimations are made first for the Iran's Asian trade partner (Specification 1), and then for European trade partner (Specification 2). The purpose is to capture possible changes in the effect of trade and FDI on employment in manufacturing sector by different trade partner. In our GMM estimation, we treat all the regressors as endogenous variables.

Table 3: One-Step GMM Estimation Results

Independent Variables	Specification 1 (Iran+Asian partner)		Specification 2 (Iran+European partner)	
	Coefficient	t-ratio	Coefficient	t-ratio
$\Delta \ln L_{t-1}$	0.117	3.23	0.211	4.17
$\Delta \ln (W/C)_t$	-0.071	-1.96	-0.074	-1.02
$\Delta \ln (W/C)_{t-1}$	-0.035	-1.55	-0.032	-1.01
$\Delta \ln GDP_t$	0.235	3.02	0.311	3.84
$\Delta \ln GDP_{t-1}$	0.074	2.41	0.123	3.21
$\Delta \ln EX_t$	0.004	2.42	0.022	2.63
$\Delta \ln EX_{t-1}$	0.001	2.04	0.019	2.04
$\Delta \ln KOF_t$	0.003	0.32	0.022	0.41
$\Delta \ln KOF_{t-1}$	0.002	0.22	0.025	1.25
$\Delta \ln FDI_t$	0.011	2.34	0.032	2.34
$\Delta \ln FDI_{t-1}$	0.014	2.46	0.025	1.06

Independent Variables	Specification 1 (Iran+Asian partner)		Specification 2 (Iran+European partner)	
	Coefficient	t-ratio	Coefficient	t-ratio
Constant	0.145	3.12	-0.415	-4.54
AR (1) p-value	0.045		0.033	
AR (2) p-value	0.663		0.412	
Instrument validity test (Sargan)	0.22		0.27	
No. of groups	16		15	
Total observations	336		315	

The Sargan test of overidentifying restrictions and Arellona-Bond second order autocorrelation test is presented at the end of the table. The Sargan test of over-identifying restrictions cannot reject the validity of the instrumental variables. In addition, the Arellona-Bond test shows the evidence of first order autocorrelation, which is expected, but no evidence of second order autocorrelation.

In the first part of Table 3, estimated coefficients of Iran and its Asian partner were presented. It shows that GDP positively impacts employment at 1% significant level; whereas growth in current real wage has a negative effect on employment at 5% significant level. The estimated coefficient of the lagged dependent variable is positive and statistically significant, indicating the persistence both the wage and GDP affects on the level of employment.

According to the results of this specification, we can't find statistical significant relationship between KOF index (globalization index) and employment. However, foreign direct investment and bilateral export corresponds positively to country's employment. This result is consistent with the results of Lipsey etc. (2000) for the case of Japan and Masso etc. (2007) for Estonia. Lipsey etc. (2000) justified that the supervisory and ancillary employment at home to support foreign operations outweighs any allocation of labor-intensive production to developing countries. This fact also can be attributed to the demand stimulation by foreign subsidiaries for domestically-produced intermediate products.

Estimated results of, Iran and European trade partner presented in the second part of Table 3. As compared to the Specification 1, GDP

behave better in terms of statistical significance. Also, the magnitude of the impacts is stronger. It is essential to highlight in this case that exports are positively correlated with employment as well as KOF index that have statistically significant impacts on employment. It is widely accepted that globalization increases the scale of production in the country by enhancing competition with the outside world and the production quality, and it contributes to the expansion of the volume of employment. With globalization, while capital gain the freedom of labor worldwide, it keeps labor within national boundaries. The countries and sectors which rapidly developed and gained knowledge and information technology have always solved the employment problems much more easily.

Theory of foreign direct investment says about the positive impact of FDI inflow on unemployment, respectively on employment. Besides, FDI inflow boosts economic growth. Investments create new jobs and subsequently decline unemployment. This broadly accepted claim is part of many researches, however with different results. Most of them conclude that the impact of FDI inflow depends on the form of FDI entering host country. Impact of FDI inflow on employment is positive in case of Greenfield investment and negative in case of privatization. Estimated results in this paper show that FDI are positively correlated with employment at 5 percent significant level. However, lagged FDI are positive but statistically insignificant, indicating that the positive impact is weak in this case.

7. Conclusion

This study analyzes the impacts of trade expansion and foreign direct investment on employment in the case of Iran manufacturing sector.

The results show that GDP positively impacts employment; whereas growth in current real wage has a negative effect on employment. The impacts of GDP have been found to be stronger in compared to wage on employment. Foreign direct investment corresponds positively to employment which can be explained in a number of ways such as the supervisory and ancillary employment at home and the demand stimulation by foreign subsidiaries for domestically-produced intermediate products. The role of KOF index (globalization) in employment generation has been changed in that

globalization has been no longer a source a job creation. According to Robins and Kinsling (1999), globalization in developing countries decreases heavy and capital-intensive industries and employment but increases the labor- intensive and export-based industries and their employment.

Based on the findings of the analysis, it is suggested that there should be free trade and trade barriers should be removed. In result, the specialization will take place and employment will be increased. Quality and quantity of the exports should be promoted for cumulative effect on employment generation.

The main conclusion of the present study is that the globalization in Iran and Asian partner has no significant impact on employment. This reflects the weak performance of Iran and its major partner countries in the globalization index.

The results in the paper have some very important policy implications. Therefore, as the results suggest that the FDI inflow has a positive impact on employment, in view of the results, I would suggest that the Iran pursue the policy of attracting foreign firms aggressively and create all the conditions required for attracting foreign direct investment in order to create further employment opportunities.

FDI may be treated rather as complement than as substitute for employment creation The employment impact of FDI is not confined to their effects on direct employment. Foreign investors engage in a network of economic interlinkages with local units. They create jobs through forward and backward linkages or destroy them through displacement of existing firms. Both indirect and spillover effects do not necessarily and automatically appear in a host country. According to existing case studies there is expected effects in Iran manufacturing. It is important to create an appropriate climate and conditions to encourage foreign investors to get involved in economic activities in Iran. A good climate for foreign investors is essential for attracting FDI after completing privatization. One important policy objective is to encourage investing firms to upgrade their value-added activities and invest in activities that enhance the comparative advantage of indigenous resources.

References

- Apergis, N., Contentions, K. P., & Tabakis, N. M. (2006). Dynamic Linkages between FDI Inflows and Domestic Investment: A Panel Cointegration Approach. *Atlantic Economic Journal*, 34(4), 385-394.
- Baltagi, H. B. (2001). *Econometric Analysis of Panel Data* (2nd Ed.). New York: John Wiley and Sons.
- Barrell, R., & Pain, N. (1997). Foreign Direct Investment, Technological Change, and Economic Growth in Europe. *Economic Journal*, 107(445), 1770-1786.
- Borenztein, E., Gregorio, J., & Lee, J. (1998). How Does Foreign Direct Investment Affects Economic Growth. *Journal of International Economics*, 45, 115-135.
- Brincikova, Z., & Darmo, L. (2014). The Impact of FDI Inflow on Employment in Four Countries. Retrieved from <http://eujournal.org/index.php/esj/article/viewFile/2830/2661>.
- Debaere, P., Hongshik L., & Joonhyung, L. (2010). It Matters Where You Go: Outward Foreign Direct Investment and Multinational Employment Growth at Home. *Journal of Development Economics*, 91(2), 301-309.
- Mojtahed, A., & Hassanzadeh, A. (2003). Effect of FDI spillover effect on Manufacturing Industries Employment in Iran. *The 7th APEF International Conference on East and West Trade and Economic Relations: Opportunities, Challenges and Outcomes*. Retrieved from https://www.civilica.com/Paper-APEF07-APEF07_018.html.
- Habib, M. D., & Sarwar, S. (2013). Impact of Foreign Direct Investment on Employment Level in Pakistan: A Time Series Analysis. *Journal of Law, Policy and Globalization*, 10, 46-55.
- Jayaraman, T. K. (1998). Foreign Direct Investment as an Alternative to Foreign Aid to South Pacific Island Countries. *Journal of the South Pacific Society*, 21(3), 29-44.

Javorcik, B. S. (2004). Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers Through Backward Linkages. *American Economic Review*, 94(3), 605-627.

Jenkins, R. (2006). Globalization, Foreign Investment and Employment in Vietnam. *Transnational Corporations*, 15(1), 115-142.

KOF. (2015). Globalization Index Data base. Retrieved from <http://globalization.kof.ethz.ch/>.

Komijani, A., & Ghavidel, S. (2006). The Spillover Effect of FDI on Employment of Skilled and Unskilled Service Sector. *Economic Research Journal*, 76, 29-50.

Lipsey, R. E., Ramstetter, E., & Blomström, M. (2000). Outward FDI and Parent Exports and Employment: Japan, the United States, and Sweden. *Global Economic Quarterly*, 1(4), 285-302.

Mariotti, S., Mutinelli, M., & Piscitello, L. (2003). Home Country Employment and Foreign Direct Investment: Evidence from the Italian Case. *Cambridge Journal of Economics*, 27(3), 419-431.

Masso, J., Varblane, U., & Vahter, P. (2007). The Effect of Outward Foreign Direct Investment on Home-Country Employment in a Low-Cost Transition Economy. *Eastern European Economics*, 46(6), 25-59.

Melachroinos, K. A. (2002). European Integration and the Spatial Dynamics of Manufacturing-Employment Change. *Environment and Planning A*, 34, 2017-2036.

Mickiewicz, T., Radosevic, S., & Varblane, U. (2000). *The Value of Diversity: Foreign Direct Investment and Employment in Central Europe During Economic Recovery. ESRC One Europe or Several?* Retrieved from <ftp://ftp.repec.org/opt/ReDIF/RePEc/mtk/febpdf/febawb2.pdf>.

Mucuk, M., & Demirsil, M. T. (2013). The Effect of Foreign Direct Investment on Unemployment: Evidence from Panel Data for Seven Developing Countries. *Journal of Business, Economics and Finance*, 2(3), 53-66.

Rama, M. (2003). Globalization and Workers in Developing Countries. *World Bank Policy Research Working Paper*, 2958, Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/19177/multi0page.pdf?sequence=1>.

Rizvi, S. Z., & Nishat, M. (2009). The impact of Foreign Direct Investment on Employment Opportunities. *The Pakistan Development Review*, 48(4), 841-851.

Shaari, M. S., Hussain, N. E., & Halim, M. S. B. A. (2012). The Impact of Foreign Direct Investment on the Unemployment Rate and Economic Growth in Malaysia. *Journal of Applied Sciences Research*, 8(9), 4900-4906.

Soori, A. R., & Tashkini, A. (2012). Gravity Model: An Application to Trade between Iran and Regional Blocs. *Iranian Economic Review*, 16(31), 1-12.

Sun, H. (1996). Direct Foreign Investment and Linkage Effects: The Experience of China. *Asian Economies*, 25(1), 5-28.

Tayebi, S. K., & Eshraghi, F. (2010). R&D Spillovers, Trade Integration and Expansion of Trade Flows in East -West Asia and Pacific, *Iranian Economic Review*, 15(26), 1-15.

UNCTAD. (1994). *World Investment Report 1994: Transnational Corporations, Employment and the Workplace*. New York and Geneva: United Nations.

Vacaflares, D. E. (2011). Was Latin America Correct in Relying in Foreign Direct Investment to Improve Employment Rates? *Applied Econometrics and International Development*, 11(2), 101-122.

World Bank. (2012). *World Development Report 2013: Jobs*. Washington, DC: World Bank.

Young, S., & Tavares-Lehmann, A. T. (2008). Achieving a Balance in the Rights/Obligations of Companies/Countries. In J. H. Dunning, P. Gugler (Eds). *Foreign Direct Investment, Location and Competitiveness*. Oxford, UK: Lsevier JAI.

Yamashita, N., & Fukao, K. (2010). Expansion Abroad and Jobs at Home: Evidence from Japanese Multinational Enterprises. *Japan and the World Economy*, 22(2), 88-97.