The Effect of Foreign Direct Investment on Employment in Tourism Industry: A Case Study of Selected Countries

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Abstract

The purpose of the present research is to study the effect of foreign direct investment on employment in tourism. In this regard, the effect of foreign direct investment as well as gross domestic production (GDP), tax rate, and globalization index as explanatory variables are studied on tourism employment as dependent variable using panel data econometrics through statistical data of 48 selected countries including Iran within 2009-2013. The results indicate that foreign direct investment negatively influences employment in tourism among the selected countries. Regarding tourism as a user sector and since foreign direct investment is associated with technology transfer and as many labor services may not be substituted by technology, attracting foreign investment is less than other sectors. Therefore, the professions are created by foreign investment in more attracting industries. Thus, it concluded that foreign direct investment attracts tourism sector workforce and reduces employment through creating professions in other economic sectors. It can be stated that this significant effect is maintained. Moreover, the effect of GDP and tax rate is positive; whereas, the globalization index variable is negative, which is consistent with the experimental results of previous studies.

* The present paper is extracted from M.A. thesis of Mazandaran University entitled the effect of foreign direct investment on tourism employment: a case study of selected countries.

1 Corresponding author’s email: sebrahimzade@outlook.com
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Introduction

Foreign direct investment (FDI) is the effective factor of filling the gap between saving-investment, industrial evolution, technology transferring, technical knowledge, and developing export market in any countries. Hence, economic policies, today, is changing toward attracting more foreign investment.

Economists believe that the most effective solution to realize sustainable development and long-term economic growth is a strong economic structure with active and healthy financial markets and the most important, productive capital. Of these, the gap between saving-investment in developing countries is the remarkable issues that a part of the main solution may be sought in utilizing capital accumulated in foreign countries.

How foreign direct investment attracts and influences nations’ economy is largely influenced by economic and political conditions as well as the host country’s position. Therefore, various factors such as gross domestic production, saving to GDP ratio, economic security index, and globalization index (like index of economic freedom, Trade Openness Index (TOI), Import Penetration Ratio index, as well as trade intensity index) as well as other indicators like labor in the host country, host country regulations, the level of economic development and human capital of the host country, etc., influence foreign direct investment attraction (Najarzade and Maleki, 2005).

Following World War II, international tourism was interested by nations as a potential promising way to achieve economic growth and development. With increasingly growing of transportation and communications in developed societies, the demand for international tourism rapidly increased (Hickman, 2007).

Tourism is one of the significant and complex economic activities. Sometimes this question raises that whether developing this industry can be useful or not. However, the doubt is more about developing countries and the nations passing from tradition toward modern and industrial societies (Hickman, 2007).

Nowadays, tourism is a widely used notion in terms of economic, social and cultural dimensions such that it is even viewed as an industry. This industry provides proper foreign exchange revenue to nations; in addition, tourism expanding is also effective for growing and developing domestic industry according to natural areas and entertainment, holy centers. Since most visitors are considered as the most suitable and accessible exporters of domestic industry for each nation such that according to studies tourism placed the third high-income industry around the world, following oil and automobile industries that play a significant role in encouraging investment, generating state revenue and direct and indirect job creation throughout the world (Hickman, 2007).
The critical significance of tourism in achieving sustained growth and development made nations and communities to develop this industry and to make every effort allocating a greater share of global market (Qolipour soleimani and Rashidi, 2009).

Tourism main capabilities such as service expanding, creating job opportunities as well as developing infrastructures, creating interaction environment, and human, social development offer desired condition for attracting foreign investment; on the other hand, attracting foreign direct investment may be effective by developing infrastructures like highways, hotels and transferring modern technologies in developing tourism in addition to other industries (Behboudi and Bastan, 2010).

The present research tries to study the effect of foreign direct investment on employment in tourism using statistical data of 48 selected countries within 2009-2013. Thus, research hypothesis is introduced as “foreign direct investment influences employment in tourism”.

**Literature review**

**Theoretical basics**

Today, countries try to provide desired conditions for more employment and sustained economic growth by adopting proper economic policies through enhancing national and international investment. While, using national and international investment through optimized utilization of production sources is of the most critical progress factors in national and international economy.

Foreign investment as input or output of foreign investment has many different effects on countries’ economy. Such investment dramatically influences employment general level and leads to regional employment distribution, changes in wages and income distribution (Mirza, 1998).

Foreign direct investment is significant not only as a new employment source, but also as a factor to change employment structure (Mickiewicz and Bell, 2000).

The effect of foreign direct investment on employment in the host country is seen in three phases:

At the first phase, foreign direct investment concentrates on national markets. This process is mainly formed in the commercial, service sector and consumer goods as well as local markets through targeted investment. Though, institutional instability, market insecurity and occupational risks may possibly emerge in the very first steps; these phenomena may not avoid attracting foreign direct investment in host countries (especially, developing countries). However, if any imbalances seen between economic advantages with insecurity and economic risk; then, failure to attract new technology, low human capital and inefficient management may lead to non-significant effect of attracting foreign direct investment on the overall employment level (Mickiewicz and Bell, 2000).

At second phase, foreign investment provides the required condition for developing. Operating cost advantages are combined to skill and expertise so that the appropriate
position for developing national market is obtained. In such situation, time horizon develops in addition to increased investment projects such that it influences enhancing employment level and transferring new technology (Mickiewicz et al., 2000).

At third phase, effects of foreign investment on labor market are much stronger comparing the previous phase; since foreign investors apply the factors based on host economic advantages. Emerging (entrance) of innovative technology increased cooperation of enterprises and offered more access to global market networks, which improves productivity of domestic industry (Mickiewicz et al., 2000).

**Foreign direct investment and host labor market**

Along with economic globalization, the demand for unskilled labor and skilled labor in foreign investment exporting countries like US and Western Europe is decreasing and increasing, respectively. On the other hand, abundant unskilled labor in developing countries made active firms to transfer some activities to developing countries as foreign investment (Nesabiyian, 2006).

Foreign direct investment places a negative and positive effect on the employment of semiskilled labor and skilled labor, respectively in host country. However, it was expected to be reversed mainly due to skill gap between these two groups of countries. Anyway, increased demand of skilled labor due to entering foreign direct investment results from the two following reasons. First, multinational corporations usually own superior technology than national corporations; hence, they require greater skilled labor. And the second factor is the “overflow effect”. Overflow effect causes homogenization and coordination of national economy various sectors and finally leads to enhanced productivity of skilled labor in different national economy sectors; as a result, the demand for skilled labor will increase (Nesabiyian, 2006).

According to business theory, entering foreign direct investment improves source allocation and leads to increased employment potential in countries. The theory states that foreign direct investment directly and indirectly influences employment. In the first mode, employment is directly influenced by active foreign firms in host country. In indirect mode, foreign direct investment positively influences host country’s employment through improving production resource allocation (Williams, 1999).

Figure 1 represents direct and indirect effects of foreign direct investment on employment.
Figure 1: Direct and indirect effect of foreign direct investment (FDI) on employment

Source: Williams (1999)

Direct effect of foreign direct investment on employment results from the type of activity selected by foreign firms since these firms operate and invest on areas benefiting from local labor. Therefore, labor demand will increase and employment will improve. Whereas, once foreign direct investment is combined with production units, employment may reduce because of improved operations (Williams, 1999). It is also true where foreign direct investment trends lead to improving exportation in investors countries, which finally leads to reducing market ratio of national firms and employment (United Nations Conference ON Trade And Development (UNCTAD), 1994).

Despite indirect effects, foreign direct investment leads to accumulation of the capitals containing better technology and more advanced management systems. Furthermore, foreign direct investment may bring some benefits through transferring required knowledge and skills. The result of such process is improved productivity, optimum resource allocation through transferring the resources from inefficient operations to more efficient activities and finally improved employment in host countries (Mahdavi and Aziz mohammadlou, 2004).
The effect of foreign direct investment on tourism

Foreign direct investment is one of financial resources of tourism development, especially in developing countries. If these countries seek for developing tourism, they must take effective measures in attracting foreign direct investment. Foreign direct investment as filling the gap between investment and national deposit derive contribute in developing a country by increasing tax income, improving management and technology, as well as labor expertise in host country (Peric and Radic, 2011).

Oh believes that utilizing economic interests of developed tourism is the first reason of this industry’s importance; however, other reasons are also introduced. Tourism significantly influences increased employment, revenues from accommodations and hotels, developing various services and infrastructures.

Tourism, in developing countries (countries experiencing a transition period), is an appropriate approach to social and economic development. Tourism development, in these countries, requires attracting more foreign direct investment (FDI) (Hardin and Holmes, 1997).

World Tourism Organization (2009) reports that though tourism development is not mainly focused on employment; it creates a cycle enhancing employment capacity (potential) of national economy. Tourism is now considered a large employment industry around the world and plays a critical role in improving employment and reducing unemployment in developing countries.

Research history

In this section, related literatures of experimental studies are reviewed.

Lipsey (2002), in a study entitled “the effects of foreign direct investment on the host and guest countries”, discussed the effect of foreign direct investment on employment in host countries in terms of direct and indirect effects. He claims that direct effect of foreign direct investment on host countries’ employment often formed through the process of capital formation and commercial activities in the form of foreign direct investment projects. The results show that direct effect of foreign direct investment is more important in some particular countries and foreign direct investment indirectly influences employment of host countries.

Taylor and Driffield (2002), in a research named “foreign direct investment overflow effect and skill structure in host enterprises”, tested the effect of entering foreign direct investment on increasing skilled labor employment through using cross-sectional time series data among England manufacturing industries during 1983-1992. Moreover, overflow effect of foreign direct investment on host country is a function of the gap amount between national and international enterprises such that if no technological gap is seen between national and international firms, there would be no overflow; further, skilled and unskilled labor structure may not also change. Whereas, if there exists a productivity gap between national and international firms (and if the gap is fit), there
would be overflow effect and foreign direct investment causes changing in labor structure (in labor market). Hence, the relationship between overflow effect and the difference of national and international technology in any industry is not a linear relationship; thus, the research considered a critical value for productivity gap where the maximum overflow effect is considered and less or more than this effect is reduced. As a result, the effect on employment structure is also diminished.

Jude and Silaghi (2015), in a study entitled “employment effects of foreign direct investment: new evidences of Eastern and Central Europe”, show that foreign direct investment leads to a kind of destruction in Eastern and Central Europe labor market, which emerges as negative short-term effect of foreign direct investment on employment. In long-term, when foreign firms gradually communicate national firms and increase regional production, the effects get positive. However, the significance of both effects is relatively low comparing reconstruction of economic structure and production growth. The results indicate that foreign direct investment has a two-stage effect on employment in European countries and alone is not a perfect tool for creating employment.

Zarhagh (1996), studying Islamic Republic of Iran’s tourism and strategic model, expresses direct and indirect effect of tourism on employment as one of tourism distinctive characteristics. Since tourism is more a user service, it is regarded a proper factor of employment for simple, skill-less and semiskilled labors such that in some developing countries, over 50% of active labors engage in activities directly or indirectly related to tourism; while, less than 5% of the population are active in this sector.

Nesabiyan (2006), in a study “the role of foreign direct investment in Iran employment using combined data”, shows that the effect of foreign direct investment on overall employment is not significant; whereas, the effect on skilled labor employment in service sector is positive and is negative in industrial sector.

Bakhtiyari and Yazdani (2010), in a paper named “direct and indirect effects of tourism on employment”, using the results of data analysis demonstrated that tourism considerably influences economic growth and employment such that incoming of every 20 tourists directly creates one job and incoming of every 6 tourists directly and indirectly creates one new job. As tourism is a user industry; so, as an active economic sector, it employs greater labor than other factors and provides increased employment level as the required investment for a job in tourism is less comparing other industries. Since many tourism labor services may not be substituted by the innovative technology, tourism development provides employment and reduced unemployment rate.

Research model

According to research hypothesis, the hypothesis is tested by regression model:

\[
E_{it} = \alpha_0 + \alpha_1 FDI_{it} + \alpha_2 TaxRate_{it} + \alpha_3 Open_{it} + \alpha_4 GDP_{it} + U_{it}
\]

Where \(E_{it}\) is tourism employment, \(FDI_{it}\) represents net inflow of foreign direct investment, \(TaxRate_{it}\) is tax rate, \(Open_{it}\) is economy openness index, and \(GDP_{it}\) shows gross domestic production per capita. \(\alpha_0\) is model interception; and \(\alpha_1, \alpha_2, \alpha_3\) and \(\alpha_4\) are
slope coefficients representing change value in tourism employment (dependent variable) per a change in independent variables. \( U_i \) is model random term that shows employment difference of tourism from the estimated value in model; it is normally distributed with 0 mean and fixed variance. In addition, \( i \) is the ith sectional unit and \( t \) is the tth time period.

In the proposed model, the variables were analyzed and estimated based on information sites like the World Bank. Understudied panel included 48 countries (Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Iran, Ireland, Italy, Kazakhstan, Kyrgyzstan, Georgia, Latvia, Luxembourg, Lithuania, Montenegro, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Swiss, Macedonia, Turkey, Ukraine, the United Kingdom, Maldives) within 2009-2013. The variables and how they were measured are described as follows.

Tourism employment is the dependent variable in the model that includes the individuals working in tourism sector. Statistical data were extracted from national reports of WTTC\(^1\).

Net inflow of foreign direct investment in million dollars is introduced as explanatory variable. Statistical data of this variable are extracted from World Bank website.

Tax rate contains personal income tax, value added tax (VAT), sales tax and service tax obtained from World Bank website.

Economy openness index is measured as the relative share of goods and services’ total export and import in gross domestic production. Statistical data of this variable obtained from UNECE\(^2\). The data for Iran were also calculated according to statistical data of Central Bank and the variable definition.

Gross domestic production per capita value of overall goods and final delivered services in the country, in term of 1000$, is divided to the population; statistical data were extracted from World Bank website.

**Model estimation and analysis of results**

Prior to research model estimation, unit root test is conducted for all variables in order to ensure variables’ reliability and to prevent pseudo regression. Table 1 reports the results of unit root test for panel data using Dickey Fuller method. Research significance level is 0.05.

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1 World Travel & Tourism Organization(WTTC)

2 United Nations Economic Commission for Europe(UNECE)
Table 1: Variables’ unit root test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Test statistic</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism employment</td>
<td>161.089</td>
<td>0.0000</td>
</tr>
<tr>
<td>Foreign direct investment</td>
<td>180.415</td>
<td>0.0000</td>
</tr>
<tr>
<td>Tax rate</td>
<td>194.806</td>
<td>0.0000</td>
</tr>
<tr>
<td>Economy openness index</td>
<td>203.065</td>
<td>0.0000</td>
</tr>
<tr>
<td>Gross domestic production</td>
<td>124.726</td>
<td>0.0260</td>
</tr>
</tbody>
</table>

Credit: Measurements of the present research

As seen in Table 1, all model variables are reliable. Therefore, the variables can be used without concerning the pseudo regression problem.

Next, the type of model estimation is selected based on F Limer and Hausmen Tests. Individual effects of the difference between areas, in pooled data models, are shown by different interceptions ($\alpha_i$). If no significant difference seen, then aforementioned model will be estimated using ordinary pooled least squares method; otherwise, model is estimated by panel data model. Therefore, F Limer statistic is initially used to determine a separate interception for understudied countries. The result of F-Limer test in various modes including different subsets of explanatory variables rejects research null hypothesis indicating equal interception for all countries. Thus, model is estimated through panel data method (Zeranezhad and Anvari, 2005).

Hausmen test, with Chi square distribution statistic, is applied to decide on the fixed effect or random effect method. This test, indeed, tests lack of correlation between individual effects and explanatory variables; according to which, generalized least squares estimations are consistent under null hypothesis and inconsistent under alternative hypothesis. Table 2 illustrates the results of F-Limer and Hausmen Tests for both models.

Table 2: Research model F-Limer and Hausmen Test

<table>
<thead>
<tr>
<th></th>
<th>F statistic</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Limer test</td>
<td>1882.812797</td>
<td>0.0000</td>
</tr>
<tr>
<td>Hausmen test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi square statistic</td>
<td>21.378828</td>
<td>0.0003</td>
</tr>
<tr>
<td></td>
<td>122.372996</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Credit: The present research measurements

Therefore, according to the results, the model must be estimated by panel data with fixed effects.

In the following, model’s total regression significance test is discussed.
Research model estimation

Linear regression assumes equal variance of error terms in different periods. Rejecting this hypothesis leads to variance heterogeneity. There are different tests for variance heterogeneity like Godfrey test, which is used here. According to null hypothesis, the variance is homogenous. Since variance heterogeneity is confirmed; hence, generalized least squares method for panel data (Panel EGLS) is used for model estimation to remove heterogeneity. The results of model estimation are illustrated in Table 3.

Table 3: Research model total regression significance test

<table>
<thead>
<tr>
<th>Method</th>
<th>Fixed effects panel (Model estimation with generalized least squares)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tourism employment (E&lt;sub&gt;t&lt;/sub&gt;)</td>
</tr>
<tr>
<td>Dependent variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Foreign direct investment (FDI&lt;sub&gt;t&lt;/sub&gt;)</td>
<td>(-1.37E05)*</td>
</tr>
<tr>
<td>Tax rate (TaxRate&lt;sub&gt;t&lt;/sub&gt;)</td>
<td>45952.86</td>
</tr>
<tr>
<td>Economy openness index (Open&lt;sub&gt;t&lt;/sub&gt;)</td>
<td>-39608.52</td>
</tr>
<tr>
<td>Gross domestic production (GDP&lt;sub&gt;t&lt;/sub&gt;)</td>
<td>70.35000</td>
</tr>
<tr>
<td>Interception (c)</td>
<td>76971027</td>
</tr>
</tbody>
</table>

F statistic: 4585.209
Significance level: 0.0000
Durbin-Watson statistic: 1.576013
Coefficient of determination: 0.999201

Table 3 represents F statistic and significance level of certainty test of linear relationship (total regression significance test) between dependent and independent variables. Since test significance level for this model is smaller than 0.05, it can be stated that there is a linear relationship between dependent and independent variables. Thus, it concluded that the whole model is significant.

As observed in Table 3, significance level of all independent variables is less than error level 0.05 indicating that all variables significantly influences the dependent variable (tourism employment).

According to significant effect of independent variables on dependent variable, the coefficients and how these variables influence tourism employment are interpreted in the following.

* E shows the rounded figure (by software); and (-05) means the rounded five digits after decimal point
Foreign direct investment negatively influences relative share of tourism employment. Foreign direct investment by multinational corporations is mainly attracted in sectors requiring superior technologies comparing national firms; hence, labor demand may increase in such sectors. As tourism is a user industry and mainly embraces semiskilled labor and considering that many tourism labor services may not be replaced by technology, higher incoming of foreign investment to the host country is mostly attracted in other economic sectors; further, increased labor demand and creating new professions may lead to attracting existing tourism labor in these industries. So, foreign direct investment may not increase employment opportunities; as a result, the share reduced. This finding is consistent with the result of Nesabiyani showing that foreign direct investment negatively influences semiskilled labor employment.

Tax rate has a positive effect on tourism employment. It may result from supplying more revenue sources of tax to cover costs of constructing economic infrastructures, which positively influences tourism.

Economy openness index has a negative impact in tourism employment. In other word, more openness index more motivates foreign investment. In fact, open economy enhances foreign direct investment. Thus, it reversely influences tourism employment.

Gross domestic production per capita positively contributes in tourism employment. Since by increasing income, according to classic and neoclassic theory, individuals prefer less working and entertainment, due to lifestyle changes; as a result, by increasing tourists, the costs imposed for goods and services in hotels, restaurants, retail shops, as well as other tourist centers (which are merely created to export to the tourists) will increase and this causes more income, production, employment and state revenue by firms directly receive tourist expenses including accommodations, retail shops and transportations sector.

**Conclusion and recommendations**

Today, tourism development in all domains is interested by state planners and private corporations. Community awareness of the fact that tourism provides a perfect foreign exchange earning source to national economy made tourism as an industry. Considering that foreign direct investment plays a critical role in bridging the gap between saving-investment, technology transfer, technical knowledge, and new managerial techniques and in general in economic development, it creates a serious competition among nations around the world.

This research, focused on studying the effect of foreign direct investment on tourism employment in 48 countries within 2009-2013, used panel data test in a fixed effect framework.

According to the results of regression model for understudied countries, it is observed that foreign direct investment has a significant reverse effect on employment level in tourism. Further, economy openness index, which is of effective factors of attracting foreign investment, also has a significant, reverse effect on employment.
Since tourism is a user industry, it may use labor, as an active economic factor, more than other factors and enhances employment as the required investment for creating an employment is less comparing other industries. Since foreign direct investment of multinational corporations is along with technology transferring and as many labor services in tourism may not be replaced by technology, attracting foreign investment is less than other sectors. Therefore, the created employments are mainly in the industries that attract greater foreign investment. Thus, it concluded that foreign direct investment attracts tourism labor through job creation in other economic sectors and reduces employment in this sector.

Therefore, to enhance employment through tourism development, the following are recommended:

- Identify more fitted key and productive economic sectors to attract foreign direct investment and prioritize these sectors in allocating FDI
- Explain the role of tourism as employment source
- Investment on infrastructures such as constructing and developing hotels, airports, roads, and railroads, etc.,
- Give enough information of tourist attractions and effective promotions to explain global opinions by organizations, offices and entertainment information agencies

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