A study of the Relationship between Foreign Direct Investment and Tourism in Iran with Emphasis on Institutional Quality

Fatemeh Sadat Alavi
Ph.D. Student in Economics, Faculty of Management and Economics, University of Sistan and Baluchestan, Zahedan, Iran,
alavi_eghtesad@yahoo.com

Nazar Dahmardeh
Professor in Economics, Faculty of Management and Economics University of Sistan and Baluchestan, Zahedan, Iran,
nazar@hamoon.usb.ac.ir

ABSTRACT

The tourism industry has a great potential to generate foreign exchange income and stimulates employment. The industry plays an important role in the process of economic development of Iran. The capacity of an economy to benefit from tourism depends on its access to (foreign) capital to invest in its infrastructures. Given Iran's limited oil revenues and the low rate of fixed capital formation, attracting foreign tourists and foreign direct investment (FDI) are among the urgent needs. In this regard, an investigation of factors affecting these two variables are of particular importance for policymakers. The present study investigates the relationship between these two variables from 1995 to 2016 with regard to institutional quality. For this purpose, Time-Varying Parameter Vector Autoregressions was applied. The results show that foreign direct investment, institutional quality and tourism have positive correlations. With the decline of institutional quality in Iran's economy after 2000, the positive correlation between foreign direct investment and tourism has weakened. Therefore, institutional quality is one of the most important determinants of the correlation between FDI and tourism in the Iran's economy.

Keywords:

tourism, Foreign Direct Investment, Institutional Quality, Time-Varying Parameter Vector Auto regression.

1. Introduction

Nowadays, tourism industry is an important economic sector in both developed and developing countries. The World Tourism Organization (2016) emphasizes that tourism has become a leading sector. According to the World Travel and Tourism Council (2014), tourism is still one of the largest industries in the world and based on its annual analysis in 185 countries and 25 regions, this sector accounted for 10.4% of global GDP and 319 million jobs or 10% of employment in 2018. These numbers show that international tourism can be considered as a potential strategic factor for economic growth, because it increases national income, employment, domestic and foreign investment, economic stability and ensures the continuation of economic activities.

Another economic factor that affects economic growth is the flow of foreign direct investment (FDI). A variety of benefits for FDI, including job creation, acquisition of new knowledge and technology, human resource development, international trade integration, competitive business environment, development of local and regional companies, formation of ideas and best practices towards a host country can be mentioned (Klein, 2001). Today, developing countries, in a competitive environment seeking to attract foreign investment, have provided a broad political, economic, legal, and cultural context. The trend of FDI absorption into the infrastructure sector is gaining steam in both developed and developing countries. The FDI helps meet the growing demand for goods and services in tourism industry by providing the necessary infrastructure.

According to UNESCO criteria, Iran has a very important position in terms of tourist attractions, but in reality, due to challenges and crises in the macro dimension, it lacks a clear and defined strategy and a unified and systematic policy-making and in the organizational dimension, it suffers from structural weakness and management inefficiency, the root of which can be traced to the quality of related institutions (Lotfi et al., 2008). On the other hand, attracting FDI in countries is not only done through the free flow of foreign capital and financial incentives, but also other components such as security, political risk, degree of economic freedom and business environment and bureaucracy play important role. In other words, institutional factors are among the most important factors affecting the FDI absorption. (Johnny, 1397).

The relationship between FDI inflows and tourism revenues is of great importance for the development of sustainable economic policies. At the same time, paying attention to the institutional structure affects the potentiality of attracting tourists and FDI. Some studies have examined the relationship between FDI and tourism, but few studies have addressed the role of institutional quality in this regard. Also, changes in this relationship over time have not been considered. This is especially important for economies such as Iran, where institutional and political conditions are changing dramatically. In this regard, the present study investigates the relationship between FDI, tourism and institutional quality in Iran using the Time-Varying Parameter Vector Autoregressions (TVPVAR) during the years of 1995-16.

2. Literature review
2.1.Theorical framework
2.1.1. The relationship between tourism and foreign direct investment

As defined by United Nations Conference on Trade and Development (UNCTAD, 2007), tourism is not a single activity, but a set of separate and related activities that include transportation, housing, food and beverage services, entertainment, culture, conferences, trade fairs, sports and entertainment. Many governments consider tourism development as necessary. This is especially noticeable in developing countries where tourism is expected to lead to foreign direct investment and economic growth.

Recently, the rapid growth in the tourism industry is partly due to the participation of newly developed tourist destinations, especially developing countries, which are seriously expanding their tourism industry. However, the inflows and incomes of international tourists are still monopolized by traditional markets, mainly European and American markets. But, in terms of growth, new markets are emerging, especially in Asia-Pacific. The rapid increase in the entry of international tourists into new markets, especially the markets of Asia and the Pacific, is mainly due to various factors. For example, tourists are interested in exploring new destinations with new tourism products such as environmental heritage and historical heritage. In addition, cheaper tourism costs also lead to more

tourist arrivals (Saleh et al., 2009). In this respect, the governments of most countries in these regions are taking initiatives to develop their tourism sector. They have provide various strategies and incentives to service providers (operators), especially the private sector, to stimulate the growth of their country's tourism industry (Redzan and Norlida, 2006).

With the increase of tourism revenues in the country, important macroeconomic variables, including foreign direct investment, which is the most effective and real type of investment, are affected. Also, increased tourism revenues improves the rate of economic growth and reduces capital outflows. To attract FDI and achieve sustainable economic growth, governments must make the necessary changes to promote the tourism industry (Mohantifar, 2016). One of the ways to improve the tourism industry is to increase the quality of services, improve hotels and further educate tourism managers and educate citizens of host countries about the importance of tourism industry and their important role in increasing tourists' emotional attachments to some places. (Satroick and Maslija, 2018). This industry helps attract FDI by expanding various services, creating job opportunities and developing infrastructure (Behboodi and Bastan, 2010). The effects of tourism development on the economy are significant and as a multidisciplinary activity that includes several different industries and skills, the benefits of tourism, compared to other economic sectors, in a wider segment of society. (Teles and Scern, 2006). Previous studies have highlighted its potential effects on promoting economic growth, job creation, and revenue generation for the government (Lee, 1988; Sinclair, 1998). Tourism can be affected by capital, infrastructure, knowledge and information, culture exchange and access to global markets and distribution chains. Therefore, in addition to the fact that the foreign exchange earnings from this industry are part of the GDP of the host country, increasing the number of tourists, managers and founders of companies in different countries that are looking for a safe place to invest can increase FDI (Solvantan et al., 2009). In addition, the amount of foreign direct investment inflow has a significant impact on the growth of the tourism industry.

UNCTAD has defined foreign direct investment in its reports as follows: It is a type of investment that involves long-term relationships and its profitability is stable and it controls an entity in another economy.

The capacity of an economy to benefit from tourism depends on access to (international) capital to invest in infrastructure development, in particular the development of transport and housing services (Pronka and Sokazis, 2008). The data show that the inflow of foreign direct investment into the tourism sector of developing countries is only 10% of global FDIs. This shows that the tourism sector lags far behind other sectors of the economy, including services, manufacturing, agriculture and others. Countries that want to expand their tourism should increase their FDI to accelerate the growth of this sector (UNCTAD, 2007). Foreign direct investment can be a catalyst to accelerate the development of the tourism industry in developing countries.

The positive effects of FDI through providing credit and creating positive effects for different parts of the host country, such as the tourism sector, introducing new management skills in the tourism industry and thus stimulating economic growth by employing a significant part of the workforce and the increase in government tourism revenues and the financing of the current budget deficit are evident. Foreign investors can help a country attract tourists by improving its tourist attractions and transportation and accommodation facilities such as airports and hotels. (Kragol and Moore, 2007 and Tong et al., 2007). There is also a direct relationship between the level of FDI and the number of managers and entrepreneurs seeking investment opportunities as business tourists in host countries (Solvantan et al., 2009). Sanford and Dong (2000) also showed that FDI has a positive impact on tourism development and one of the most important indicators of tourism development is international investment in the hotel industry. FDI also provides access to markets and global distribution networks (Baroclaw, 2007).

In addition to the benefits of tourism and FDI, some authors have addressed its negative environmental, socio-cultural, and economic effects (Milne, 1990; Lang et al., 1990; Liu and Ware, 1986). Copeland (1991) argues that excessive FDI may lead to overconfidence and high risk to the host country. In addition, Broman (1996) argues that although FDI stimulates tourism expansion, many developing countries face enormous challenges in overcoming poverty and inequality. In many cases, unequal

economic and social relations increase due to economic dominance by multinational corporations. In addition, the consumption of non-durable goods is more affected by tourism and can change the patterns of domestic consumption through the effect of pretense and lead to increased inflation. As a result, the negative effect of rising domestic prices on the general welfare of the country is greater than the positive effects of tourism (Hazari, 1993).

Iran's economy is a single-product economy that relies on oil revenues. Such dependence increases the level of the vulnerability of the country's economy. Today oil prices are fluctuating due to constant political issues. When the oil price rises, the foreign exchange earnings from oil exports in the country will be more favorable, but such an increase in income is not very useful for us, because it is cross-sectional and unpredictable and therefore the necessary planning has not been done on how to use such revenues. The tourism industry is one of the sectors that can play a role in destroying the single product economy (Mamipour and Nazari, 2014). According to UNESCO, Iran is one of the top 10 tourism countries in the world and with its rich cultural facilities and pristine natural environment, this industry can be used as a basis for economic, social and cultural development.

2.1.2. Institutional quality, tourism and foreign direct investment

Institutions, as defined by North (1991), are the constraints imposed by individuals on the interactions among them, including: 1. Formal rules including constitution, subject laws, ordinary laws and by-laws 2. Informal restrictions, including norms, customs, and rules of conduct 3. The nature of the application of these restrictions. By distinguishing between organizations and institutions, North likens organizations to actors and institutions to the rules of the game. Accordingly, the institutional framework means a framework that determines how institutions are established, without any special judgment as to whether the institutions are efficient or distorted, Institutional quality refers to the way institutions act in creating economic growth. In recent years, good governance (a good indicator to quantify the quality of governance) has become a measurement of the quality of institutions in countries. Using the findings of various international organizations, such as the EIU,

the ICRG, Heritage Foundation, and Freedom House, Daniel Kaufman integrated the political, economic andsocial aspexts of countries (Baradaran Shoraka, 1387). The indicators are: the right to comment and accountability, political stability, the effectiveness of government, the quality of laws and regulations, the rule of law, control of corruption.

Political, economic and social stability of a country is seen as a factor for attracting FDI (Danelpo, 2003). Studies conducted in recent years, mainly based on the concept of institutions, have proven the relationship between security and investment (Hosseinzadeh Bahreini, 2004). The relationship between governance and the FDI was first proposed by Lucas (1990). He argued that the existence of some non-economic relations, including economic risks, colonial relations, unstable and unreliable laws and regulations, bribery and corruption, has increased the risks of investing in poor countries and therefore the return of capital in these countries, relative to rich countries, is not at a higher level. Accordingly, capital flow from rich to poor countries cannot be expected. Institutionalist economists such as Murrow (1995), Nek and Kiefer (1997, 1995), Barrow (1999), Hall and Jones (1999) emphasized the idea that institutional change is an important determinant of economic development and investment growth. (Shaptilo, 2006). Poor countries are unable to raise capital due to inefficient institutions. (Nick and Kiefer, 1997). Recently, Selzman et al. (2015) presented strong evidence that the inflow of foreign capital, including FDI, has a positive effect on economic growth in countries with high-quality institutions, while in countries with below thresholds institutional quality have negative or statistically insignificant effects. In addition to being a source of funding, FDI can be a source of new technology transfer, management and organization skills, and marketing networks, so it is important to provide the right platform for FDI acquisition. In this regard, the development of financial market, constructive, active and effective interaction with the world, improving infrastructure, skilled manpower, improving the functioning of institutions are important to attract FDI (Amini et al., 2011). An efficient judicial system and protection of the rights of individuals are effective in increasing investment and slow down the growth rate of investment in the face of cumbersome laws and regulations, administrative fraud and increasing

corruption. Corruption is equivalent to imposing a tax on foreign capital in a way that reduces foreign direct investment in countries. (Wie, 2000) The intense concentration of political power and authority, the ideological commitment of political leaders, the domination of state property, the organizational centralization of government, the wide range of controls, the suppression of political freedoms and the denial of social pluralism, and finally bureaucratic structures are the charactristics of centralized economies (Hritich Foundation, 2006). One of the most likely consequences of such situation in developing countries is the marginalization of the private sector at home and the reduction of foreign investment in the infrastructures of the tourism industry. A review of FDI statistics on tourism shows that developed countries allocate more than 90% of foreign investment to sectors required by the tourism industry, such as the construction of hotels, restaurants and water transfer, while the share of developing countries in this foreign investment has been less than 1%. A noteworthy point in the foreign direct investment of developed countries is the absolute 99% share of these countries in FDI absorption in the aviation sector (Tucson, 2001). Institutionalists believe that institutional components, especially the institutional index of governance, affect the economic development and tourism attraction of countries in various fields. Some experts such as Witt (1995), Lim (1997) and Lim and McAller (2002) state that institutions and the level of development in the destination country are the most important determinants of tourist arrival. Political stability, personal security, marketing efforts, and available infrastructure are important factors in the flow of tourism (Kadaro and Stana, 2007). Political risk also has a significant impact on tourism demand in developed and developing countries (Eilat and Inoue, 2003). In Iran, policies in the field of tourism rarely arise from its nature and reason for existence and are mostly influenced by cultural, economic, social and especially political conditions. Therefore, reform and change in the functions of institutions, especially government institutions in Iran, seems vital. In this regard, political economists believe in the spread of democracy as a factor to control government,s behavior (Lotfi et al., 2008). From the above, it is clear that the institutional quality in the host country can play an effective role in attracting FDI and foreign

tourists. Therefore, the present study tries to clarify the relationship between tourism and foreign direct investment, considering the importance of institutional quality.

2.2. Research background

By using the error correction method (ECM) from 1978 to 2005 Tang et al. (2007), examined the causal relationships between FDI, economic growth and tourism in China. In other words, the growth of China's tourism industry is due to attracting foreign direct investment.

Solvanatan et al. (2009) examined the causal relationship between FDI and the tourism industry in India in the context of VAR, using quarterly statistics from 1995 to 1997. The results showed a one-way causality from FDI to tourism. This explains the rapid growth of international tourism due to greater absorption of FDI in the Indian economy over the past decade.

Satroev and Moselija (2018) used a panel data regression model to examine the relationship between FDI and tourism in 113 countries during the period 1995-2015. In addition, they examined the causal relationship between the tourism industry and FDI by controlling indicators such as consumption, trade openness, and human capital. The results indicate a significant positive impact of tourism on FDI. In addition, the three control variables have an important effect on FDI. A one-way causal relationship of tourism was reported to the FDI. Consumption, trade openness, and human capital also have a one-way causal relationship with FDI.

Saleh et al. (2011) investigated the relationship between tourism industry development and foreign direct investment in selected Asian countries such as Malaysia, Singapore, Thailand, China and Hong Kong, using a model autoregressive distributed lag. The result shows that there is a long-term correlation among all the studied variables. However, the development of tourism industry is more important than FDI in influencing dependent variables. Meanwhile it is more resilient. In the short term, it becomes clear that there is a two-way relationship between the development of the tourism industry and FDI in Hong Kong. In the case of Malaysia and Thailand, there is a one-way relationship between the development of the tourism industry and FDI. For

Singapore and China, however, there is no relationship between the two variables.

Yazdi et al. (2017) used panel data on the short-term and long-term effects of exchange rates, trade openness, and foreign direct investment on tourism revenues of EU member states for the period 1995-2014. Autoregressive econometric techniques with distributed lag, unit root test, cointegration and causality were used. The results showed no causal relationship between tourism and FDI. The real exchange rate and trade openness have a two-way causal relationship with tourism activities, explaining that FDI plays an important role in expanding the tourism sector in EU countries. In order to achieve increasing tourism revenues, appropriate policies must be considered to explore tourism resources and programs that develop new tourist sites and facilities.

Nodeh and Simon (2004), by using cross-sectional and panel data for the period 2000-2006 and panel data regression, examined the factors affecting incoming tourists to 43 African countries. The results show that political stability, tourism infrastructure, marketing and information and the level of development at the destination are the main factors for travelling to Africa. Also, the level of income in the country of origin, relative prices and travel costs are not very significant in explaining the demand for Africa as a tourist destination.

By using cross-sectional data in 80 countries with advanced economies, emerging markets, and developing countries and using a threshold regression model for the period 1975-2005, Selzman et al. (2015) argued that better quality institutions representing the rule of law, corruption control, and democracy not only influence the inflow of foreign capital but also facilitate the effects of that capital on innovative companies and economies.

Shahabadi and Taliabi (2016) examined the impact of the governace index on the tourism income of selected developing countries during the period 2000-2012. Findings indicate a positive and significant effect of the governance index on tourism income of developing countries under study. Also, the development of infrastructures, communication technology, information, and the level of public education have a positive effect on international tourism revenue. Based on the results, the estimated coefficiency of the health expenditure index is meaningless. The results also show that in addition to increasing real per capita income and population of countries and exchange rates, transportation infrastructure is very important in attracting tourists.

Behboodi and Bastan (2010) examined the causal relationship between the number of foreign tourists and the amount of foreign direct investment for low- and middle-income countries during the period 1995-1997, using the autoregression panel model. Granger-Hsiao causality tests, Toda and Yamamoto causality tests have been used to examine the existence and non-existence of a causal relationship. The results indicate that according to both test statistics, there is a one-way causal relationship from tourism to FDI in this group of countries.

Mehnatfar (2016) examined the effect of tourism revenues and other variables affecting FDI for 23 countries during the period 2014-2008 using the panel data method. The results of model estimation showed that the effect of tourism income on FDI is positive and significant. Also, the degree of openness of the economy and GDP per capita has a positive and significant effect on the FDI rate, but the inflation rate has a negative and significant effect on the FDI.

Mehrara and Asadian (2009) estimated the impact of good governance on foreign direct investment for 15 middle-income countries (including Iran) between 1996-2005. In this study, using panel data and Granger test, it was found that good governance, GDP and infrastructure have a positive and significant effect and inflation has a negative and significant effect on FDI.

The present study examines the interactions of foreign direct investment, tourism and institutional quality during the years 2016-1995. For this purpose, the vector autoregression method with variable parameters over time has been used. Previous studies have usually examined the relationship between tourism and FDI.

Here, institutional quality can reveal the relationship between these two variables more than before. Also, previous studies did not consider the changes and signs of this relationship over time. In this study, we try to clarify the changes and signs of the relationship over time through impulse response function.

3. Methodology

3.1. TVP-VAR model

The model used in this study, which is based on the TVP-VAR method, has many advantages over other models used in domestic and foreign studies.

Primiceri (2005) and Nakajima (2011) provide a comprehensive overview of the empirical methodology for the time-varying parameter VAR approach with a stochastic volatility (TVPVAR). The structural VAR representation of a multivariate time series model wit coefficients and errors of time-varying structural innovations is defined as follows:

$$B_t Y_t = d_t + C_{1,t} Y_{t-1} + \cdots + C_{p,t} Y_{t-p} + \Sigma_t \upsilon_t$$
(1-3)

With :

Y_t : is a vector of 4 endogenous variables (exchange rate, import price, producer price, consumer price)

d_t : is a constant time varying vector

$C_{i,t}$: is a 4*4 matrix of the time varying coefficients of the delayed endogenous variables

B_t : is the matrix of contemporary coefficients varying in time. B_t is lower triangular with a value of 1 on the elements of the diagonal, whereas the matrix of the standard error Σ_t, which is varying in time, is diagonal

v_t: is a vector of structural innovations Σ_t, which are assumed to follow a multivariate standard normal distribution

(2-3)

$$\beta_t = \begin{pmatrix} 1 & 0 & \cdots & 0 \\ b_{21},t & 1 & \ddots & \vdots \\ b_{31},t & b_{32},t & 1 & 0 \\ b_{41},t & b_{42},t & b_{43},t & 1 \end{pmatrix} and \Sigma t = \begin{pmatrix} \sigma_1,t & 0 & \cdots & 0 \\ 0 & \sigma_2,t & \ddots & \vdots \\ \vdots & \ddots & \sigma_3,t & 0 \\ 0 & \cdots & 0 & \sigma_4,t \end{pmatrix}$$

The representation of the reduced form of the structural model (1) is defined as follows:

(3-3)

$$Y_t = C_t + A_{1,t} Y_{t-1} + \cdots + A_{p,t} Y_{t-p} + \varepsilon_t$$

With :

$A_t = B_t^{-1} C_t$ is a matrix of the time varying delayed coefficients, $C_t = B_t^{-1} dt$ the vector of the time varying of the constant and $\varepsilon_t = B_t^{-1} \Sigma_t v_t$ is the vector of the reduced form of the residuals. Depending on the structure of the matrix of the contemporary coefficients B_t and the standard errors of the structural

matrix of the innovations Σ_t. we can assume that the reduced form of the residues ε_t follows a normal multivariate distribution:

$$\varepsilon_t \rightarrow N(0, \Omega_t)$$
(4-3)

Ω_t is a symmetric and positive matrix of time-varying variances-covariances which satisfies the following equality:

$$B_t \Omega_t B_t' = \Sigma_t \Sigma_t'$$
(5-3)

Allowing this heteroskedasticity to vary over time in innovations is important for our purpose since it allows for changes in the size of shocks and their immediate impact.

We denote by the column vector which contains the stacked columns of the matrix A_t of the delayed coefficients $a_t = (c_t A_{1t} \dots \dots A_{pt})'$, $b_t = (b_{21t} b_{31t} b_{32t} b_{41t})'$ the column vector which groups together the elements of the matrix of the contemporary coefficients B_t, and ht as the column vector which contains the diagonal elements of the matrix of standard errors Σ_t, such that $h_t = \ln(\sigma_t)$, $\sigma_t = (\sigma_{1,t} \dots \sigma_{4,t})'$

The parameters a_t , bt and h_t evolve as follows:

$$a_t = a_{t-1} + \omega_t$$
$$b_t = b_{t-1} + \varsigma_t$$
(6-3)
$$h_t = h_{t-1} + \eta_t$$

This random walk specification has two main advantages. First, it allows to model sudden breaks in the evolution of the parameters that could occur during the estimation period.

Second, it also allows to model gradual changes in the relationship between variables.

Innovations in the reduced form model are assumed to be normally distributed jointly:

$$\begin{pmatrix} \upsilon t \\ \omega t \\ \varsigma t \\ \eta t \end{pmatrix} \approx N(0, V) \, with \, V = \begin{pmatrix} I_4 & 0 & 0 & 0 \\ 0 & Q & 0 & 0 \\ 0 & 0 & S & 0 \\ 0 & 0 & 0 & W \end{pmatrix}$$
(7-3)

Where the matrix V is diagonal with I4, Q, S and W the elements on the diagonal
corresponding to the matrix covariance of structural innovations v_t, innovations of delayed

coefficients ω_t, innovations of contemporary coefficients ζ_t and innovations of standards errors ($h_t = \log\sigma_t$) η_t, respectively.

3.2. Introduction of variables and unit root test

In this study, three variables of foreign direct investment, institutional quality and number of tourists have been used. All variables are entered logarithmically. Institutional quality was quantified with three indicators of democracy, law and order and corruption control. The variables, except for the institutional quality extracted from the ICRG, are taken from the World Bank website. It's necessary to check the stationarity of the series before running the model, because according to Brooks (2014) it is likely to get spurious results by employing non-stationary data. Therefore, an Augmented Dickey-Fuller test is employed and the results are summarized in Table (1).

Table 1: The result of the stationary test on the level of variables

inference	probability	statistic	variable	
non-stationary	0.24	2.11-	With intercept and no trend	LIQ
	0.54	-2.02	With intercept and trend	
stationary	0.51	-1.5	With intercept and no trend	LFDI
	0.04	-3.69	With intercept and trend	
non-stationary	0.45	-1.62	With intercept and no trend	LT
	0.11	-3.22	With intercept and trend	

According to the results of the generalized Dickey-Fuller test, apart from the foreign direct investment logarithm, the other two variables are not stationarity. Since the existence of structural break causes non-stationarity of time series, then the unit root test in terms of structural break for the logarithm variables of institutional quality and logarithm of number of tourists is performed. Table (2) shows a summary of the test.

Table 2: The result of the stationary test in terms of structural break

inference	Tyoe of break	Year of berak	Critical value	Statestic test	varaible
stationary	intercept	2010	-4.44	-4.49	**LIQ**
stationary	intercept	2005	-4.86	-5/6	**LT**

since the test statistic is larger than the critical values for both variables, it can be concluded that both variables are stationarity. Therefore, there is no need to check the stationarity of the variables in the first difference mode and cointegration.

4. TVP-VAR pattern estimation and result

In this section, the relationship between variables is analyzed by using impulse response functions. Figure (1) illustrates how tourism is affected by the shock of institutional quality.

According to Figure (1), the shock of institutional quality[i] (as much as a standard deviation) has a positive effect on tourism in Iran. In this sense, with the improvement of institutional quality, the number of tourists entering Iran will increase. The results show that since 2001, the impact of institutional quality has decreased. This can be attributed to the decline in the institutional quality index since 2001. In the years 1997-2000 in Iran, with a change in attitudes towards the central economy and changes in the infrastructure entering the country, the display of security and peace, bureaucratic measures, a significant increase in tourist arrivals to Iran was provided. As Kadaro and Stana (2007) noted, political stability, personal security, marketing efforts, and available infrastructure are important factors in the flow of tourism. Eilat et al. (2003) also stated that political risk has a significant impact on tourism demand in developed and developing countries.
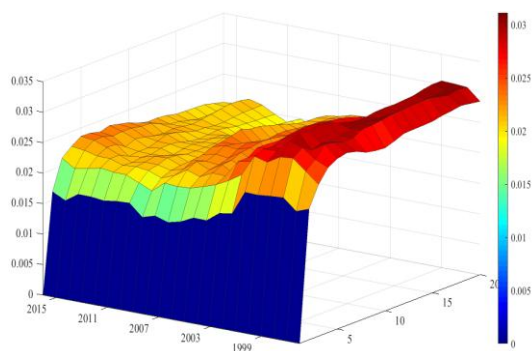
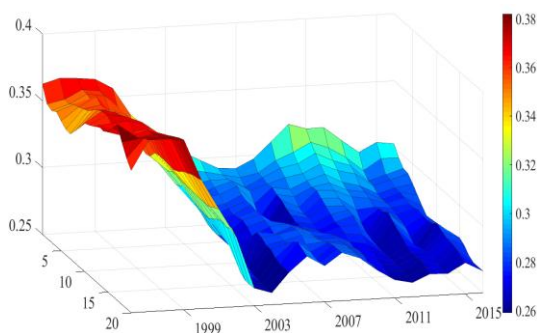**Figure (1): Impulse response function of tourism to the institutional quality shock**

Figure (2): Impulse response function of FDI to the institutional quality shock

this period, compliance with bureaucratic rules has taken place. As Selzman (2017) demonstrated, better quality institutions representing the rule of law, corruption control, and democracy not only influence the inflow of foreign capital but also facilitate the effects of that capital on innovative companies and economies.
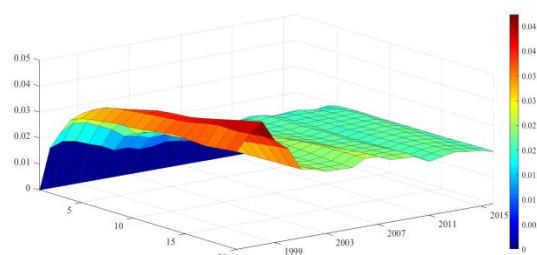

Figure (3): Impulse response function of institutional quality to the tourism shock

According to Figure (3), since the impact of institutional quality on tourism during the research period is positive, with the arrival of more tourists to Iran, we can expect institutional quality to improve. This relationship has been weak since 2001, as the impact of tourism on institutional quality declined since then.
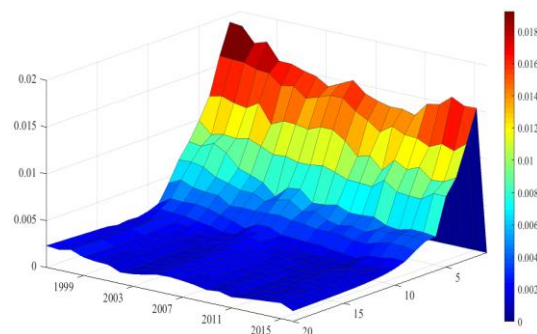

Figure (4): Impulse response function of FDI to the tourism shock

Figure 2 shows that institutional quality has had a positive effect on foreign direct investment during the research period, explaining that since 2000, this impact has been declining. The strong relationship between these two variables during 1995 to 2000 coincided with the beginning of the construction period and the country's need for investment, and following the passage of the Second Development Plan bill, foreign investment was again welcomed by policymakers and officials. During the four years from 1995 to 1999, it led to attracting nearly $ 870 million in foreign capital to the country (Iran Investment and Economic and Technical Assistance Organization, 2016). Also, the economic and political policies of that time in Iran were not ineffective, including: detente in Foreign policy, decriminalization of economic activities, support for foreign investment and capital security, emphasis on civic institutions and legalism. Also during the reformist government, Iran has the best rank in the index of corruption. In fact, it can be said that in

The figure above shows that with the increase of tourists visiting Iran, foreign direct investment increases. This effect is maintained throughout the research period. This influence peaked in 1998. As stated by Bastan and Behboodi (2008), the tourism industry helps attract FDI by expanding services, creating job opportunities, and developing infrastructure.
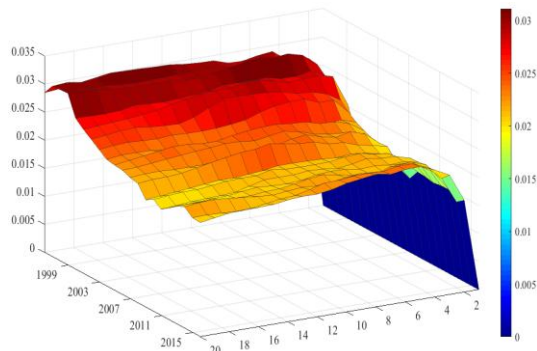
Figure (5): Impulse response function of tourism to the FDI shock

Figure (5) shows that the impact of foreign direct investment on tourism has varied over time. Since 2001, the positive impact of foreign direct investment on tourism has diminished. As Tong et al have shown, foreign investors can help a country attract tourists by improving its tourist attractions and transportation and accommodation facilities such as airports and hotels. Solvantan (2009) also stated that there is a direct relationship between the level of FDI and the number of managers and entrepreneurs looking for investment opportunities as business tourists in host countries.

As can be seen, with the improvement of institutional quality in Iran, the relationship between tourism and FDI increases and decreases with the quality of the relationship between these two variables.

From 1995 to 2000, it helped to expand the tourism industry and attract foreign investment, along with improving institutional quality, The number of tourists in Iran increased from 86000 in 1986 to 764000 in 1997 and 1321000 in 1999, and the average growth rate of incoming tourists to Iran from -9.81 in 1979-1978 to 83 / 28 in the years 1994-89 and 29/81 in the years 1999-1995 and then decreased in the years 2004-2000 and reached 4.74. Also, from 1995 to 1999, the volume of direct investment in the country reached $ 870 million.

5. Discussion and conclusion

The growth of foreign investment as a tool for creating new economic opportunities, clearly reveals the need to develop mechanisms to regulate some of the most important issues related to foreign investment. Especially recently, there has been a growing interest in foreign investment in the economy

and tourism destinations. Providing a suitable platform in developing countries, including Iran requires institutional quality improvement. In other words, if there is more political stability in these countries, corruption, control of the rule of law and wider democracy, more effective government and deregulations, there woulb be a spatial advantage in attracting foreign capital and tourism.

Attracting tourism and foreign investment is related to several factors in the host country, the most important of which is the institutional quality. In this regard, this study examines the relationship between these two variables in Iran during the yearsof 1995-2016 with regard to institutional quality. For this purpose, the vector autoregression method with variable parameters over time has been used.

First, the reliability of the variables was checked, the results showed that all variables were stationary at the level. Then, impulse response functions were used to achieve the purpose of the research. Functional analysis over time has shown that the relationship between foreign direct investment and tourism depends on the state of institutional quality. So that after the decline of institutional quality, the positive relationship between variables has been weakened. In this study, we tried to determine the changes in the relationship of variables over time and the sign of the relationship by analyzing the impulse response functions, which was the distinguishing point of the present article.

Improving institutional quality is both effective in attracting more global tourists and foreign direct investment, as well as promoting a positive relationship between the two variables. The following suggestions for paving the way for FDI and tourists to enter the country can be helpful:

1) Deregulation in the sense of reviewing all regulations and removing various and complex regulations that are related to foreign investment and tourist arrivals, such as trade laws, exports, imports, foreign ownership, consular rights, insurance rights and visa laws and eliminating the security view of foreign tourists.

2) Establishing political stability in the country and the region and gaining public trust to governments within the framework of laws is a serious necessity in order to be able to attract

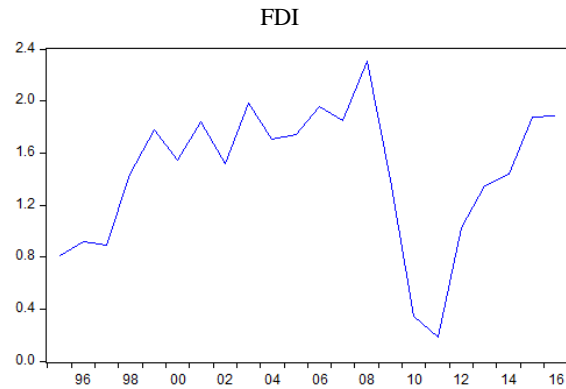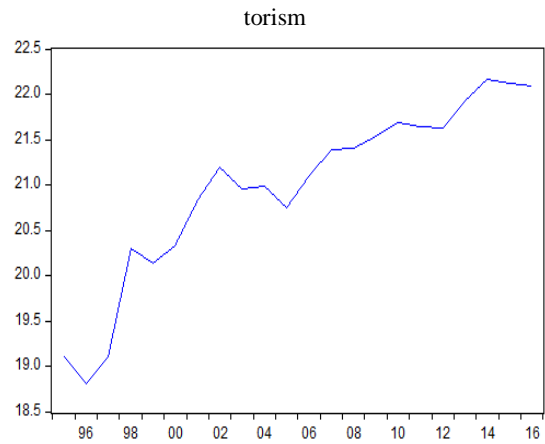FDI and tourism in the country by establishing peace.

3) Simplifying the conditions for attracting FDI and tourism and the elements involved in this process by creating a single service window where FDI activists and tourists can get all the services they need on demand from one center. Developing and implementing assurance mechanisms to ensure the primary and secondary security of FDI product firms.

4) Improving the quality of information and education on the part of the investor and the investee through training workshops. Familiarization of the investee with the ecosystem and atmosphere of FDI in other countries to try to surpass those countries in the process of optimizing the investment environment, as well as engineered training of channels accepted by the parties to the opportunity to get acquainted with the reality of the cultural, social and legal framework of the country, as well as the latent and potentially rich cultural, natural, geo-economic and geo-strategic benefits of the country and the elimination of the ill-effects of Islamophobic propaganda.

5) Using and activating intermediary institutions or brokers and accelerators to provide FDI applicants and economic actors of the country and restructure and innovative measures in related institutions.

6) Permanent activation of the virtual version of the institutions serving FDI and tourists in different languages and cultures.

7) Utilizing the benchmarking method or the successful international achievements and improving the quality of human resources by empowering them by sending them to countries and associations with new and successful experiences.

8) Simplification and improvement of FDI and tourism incentives in such a way that it is designed to be simpler and more motivating compared to other countries in the region.

9) Empowering and updating human resources through skill-based courses in accordance with the required fields in attracting technical knowledge obtained from FDI and dealing with foreign tourists.

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Note

[1]. see annexes.

Annexes

institutional quality