Journal of Economic Growth and Entrepreneurship JEGE
Spatial and entrepreneurial development studies laboratory
Year : 2022 Vol.5 No.3 pp:44-52

A Vector Autoregressive (VAR) Model Analysis in the Determinants of Foreign Direct Investment (FDI) Inflows into India: Pull Factors Effects

Bakdi Malika [1]

[1] *Assistant professor, Faculty of Economics and Management, Laboratory of Entrepreneurship and Local Development in Ain Defla, Djilali Bounaama University of Khemis Miliana, Algeria., malika.bakdi@univ-dbkm.dz.*

ARTICLE INFO

Article history:
Received:20/11/2021
Accepted:03/10/2022
Online:08/10/2022

Keywords:
infrastructure
Inde
Foreign ivestors
market size
pull factor
JEL Code: C3, C32, E2, F2, F21, F23

ABSTRACT

The objective of this paper is to confirm the "pull factor" to determine the variables that explain the location of foreign investors in the case of India, through an estimation using the VAR model. The result shows that Market size, and Trade Openness are key determinants of foreign direct investment in India. Thus, infrastructure does not cause FDI in the long term.
This paper is structured around two initial parts. In the first part, we propose a literature review of the determinants of FDI as the starting point of our analysis. In the second part, we will present our empirical study to demonstrate the link between infrastructure and the attractiveness of foreign investors.

1. Introduction

For the third successive year since 2016, global foreign direct investment flows declined by 13% in 2018, from $1.5 trillion in 2017 to $1.3 trillion in 2018, (UNACTAD, 2018) and this is reflected in the tax reforms introduced in late 2017 by the United States.

In 2018, India ranks 9th among the recipients of FDI, it is among the top 20 FDI host economies. Out of $512 billion of FDI flows to Asia, India attracted $42 billion in 2018, then, it was a 5% upside in FDI inflows associated with 2017, historically, the country accounts for 70 to 80% of inflows in the region. It was the world's largest recipient of FDI, as well. (UNACTED, 2019) .

In line with the latest UNCTAD report on foreign direct investment, India keeps up growth sustained by strong FDI inflows, with a GDP of $2846 billion in 2018. India has become the fifth-largest economy in the world (CEBR, 2020), it is expected for exceeding Germany to acquire the fourth-largest in the year 2027, and Japan to become the third-largest in the year 2030.

If we need to explain how an increase in international direct investment flows affects growth, we will go back to the explanatory theories of economic growth, it's revealed the direct link between these two macroeconomic aggregates, further, investment is a part of aggregate demand, therefore the foreign direct investment is a flow of currency, consequently, if a country does not have a convertible currency, it is important financing to fill the outflow of foreign currency.

India is ranked 77th (WB, 2019)around the world in the doing business report, then is included the countries that are improving the most in 2019. With the fifth-largest improvement in score of all countries during the year. Reforms in 14 fields of business regulation were pivotal to this improvement (CEBR, World Economic League Table 2020, 2019).

India's economy has experienced a remarkable boom, so India is relying on an efficient strategy to attract

* Corresponding Author :*Bakdi Malika.*

(cc) BY-NC

international capital, economic diversification, and to fill the gap in its industrial strategy. In terms of statistics, India's aggregates are positive, such as the doing business ranking, the corruption index, there are encouraging signals then, there is a stong challenge of global attractiveness. Instead, **What are the major determinants that explain the attractiveness of FDI in India?** Our main interest is to identify the impact of pull factors on FDI movement in India.

Several researchers proved that international firms are more powerful in developing new products and technologies than local firms. On the positive side, it is argued that multinational firms involved the transfer of a package of resources, for example, technology, management skills, and not just that of finance capital, that group theorists such as Iversen (1935) had sought to explain (Stephen, 1966). thus, in this research, we attempt to explain the key determinants for India's FDI flows. A priori, we assume that FDI_INFL in India would be captured by macroeconomic factors, that is, internal factors such as market size, investment in transport infrastructure, and trade openness. In this work, to achieve the objective we use theoretical and empirical hypotheses formulated by different authors on the determinants of FDI_INFL

2. Literature review:

2.1. Theoretical literature :

Choosing a country for realizing an investment, does not mean an easy choice, so multinational firms to locate their projects outside the country depends only on their strategic objectives, well as, on the combination of different factors (internal and external).

The determinants of FDI are difficult to measure, all the studies that exist have not been able to conclude a unified result on this subject (Dunning, 1988) one of the first economists to explain the factors that push multinationals to delocalize through the OLI paradigm.

However, in neoclassical theory, the explanation of the location of MNFs is determined by a country's factor abundance of capital, labor, and natural resources.

The advanced theories that explain the determinants of FDI, show that transportation costs, market size, and geographical proximity can be a boosting factor for the decision of investment. (Paul, 1991).

To be sure, many studies have made an effort to develop a wide literature that focuses on the determinants for firms that relocating abroad. A new paradigm complements previous studies, namely the "push-pull" theory. This theory identifies that foreign capital flows are determined by external "push" (PS) and internal "pull" variables (PL) (CYPRIAN , 2020). Thus, the explanatory variables of FDI "pull" are linked to the location (Dunning), as well as external factors "push". These new explanatory variables can be written as follows:

$$IDE_t = C + PL_t + PS_t \quad (1)$$

$$IDE = f(PL, PS) \quad (2)$$

2.2. Empirical literature:

2.2.1. "Pull factors" approach :

The "pull-factor" approach examines the link between the specific conditions in host countries and the FDI flows received. Furthermore, it provides several socio-economic and political factors: socio-economic infrastructure, market size, the level of human capital development, the distance between the country and the main international markets, labor costs, openness to international trade, the exchange rate, fiscal and non-fiscal incentives, political stability, monetary policy, and the degree of liberalization of the financial system.

(Oluyele , 2003) this paper applied a panel regression model to check the factors that can explain the volume of FDI in developing countries. The main finding shows that the combination of high GDP per capita, trade openness, high level of infrastructure development, and high rate of return on investment are the main decision parameters in the overall analyses of investor behavior.

(Rudra , Neville, Yuosre , & Bele , 2013) this paper illustrates the long-term relationship between transport infrastructure (TI), foreign direct investment (FDI), and economic growth in India. Using an autoregressive distributed lag model (ARDL), plus a vector error correction model (VECM), the results show that transport infrastructure is co-integrated with foreign direct investment (FDI) and economic growth. Indeed, the causality test confirms the presence of bi-directional causality between TI and FDI, TI and GDP, also FDI and GDP.

(Rudra P. P., 2008) The paper examines the determinants of foreign direct investment (FDI) in India, from 1970 to 2004, the empirical survey confirmed that infrastructure has a negative impact on India's FDI inflows. Instead, trade openness has a positive impact on FDI inflows.

(Ch. , Muhammad , Hassan , & Muhammad , 2011) This paper is based on the ARDL approach for the period 1975-2008 Pakistan is the case study. The results reveals a strong positive impact of infrastructure on attracting foreign direct investment, in the short and long term.

(Nor'Aznin , Siti , & Mukaramah, 2012) in Malaysia over the period of 1970-2010. As expected, market size, trade openness, and human capital, still play an important role in determining Malaysia's FDI flows.

(Normaz , 2009)This paper used a semi-gravity model to identify the determinants of FDI in ASEAN countries. The results revealed that in addition to market size, other criteria such as shortest distance, language, and common border also attract more foreign investors. Other macroeconomic factors such as the manageable inflation rate and the slightly higher exchange rate are among the main factors attracting more FDI.

(Sebastian, 2015) The paper employs a Panel Data analysis of BRICS contries from 1992-2012. The results indicate that the most significant determinants of FDI Inflows are Trade Openness, GDP per capita and Exchange Rate.

(Reenu & Anil , 2017) Using (market size, trade openness, infrastructure, inflation, interest rate, research and development and human capital) as explanatory variables, Fixed effect estimation indicates that market size is the most significant determinant of FDI inflow.

(Javeria & Ashok, 2020) This paper tests the role of macro-economic variables in determining FDI inflows in the context of BRICS countries. Using the Pooled Mean Group (PMG) Auto-Regressive Distributive Lag (ARDL) method over the period 1994 to 2018. The findings of the study indicate that GDP, trade openness, exchange rate, gross capital formation and availability of infrastructure facilities are significant in long run.

In the light of the literature review, it appears that not all studies agree on the significance of the various determinants of FDI. The majority of research shows that macroeconomic factors are the main determinants, while others focus on political (institutional) risk variables. For our part, we will take into account internal "pull-factors" variables to explain FDI in India.

3. Methodology :

To realize our paper, we will use VAR model, as well as an application of pull-factor theory, to identify the specific factors for India that affect the investment decisions of multinational companies.

3.1. Data and Estimation Results :

Table 1: Presentation of variables

Variable	Variable Name	Unit of Measure	Sign Expected	Source
Variable Explained				
FDI	Foreign Direct Investment Inflows	US Dollars	+	UNACTAD
Explanatory Variables				
Interns				
MS	Market Size	US Dollars	+	IMF
TO	Trade Openness	US Dollars	+	IMF
IT	Investment in Transport Infrastructure	Dollars US	-	OECD

Source: Researcher Own Calculation From previous study

3.1.1. Study Period and Methodology :

We will use data from 1990 to 2018. The collection of data will be from various sources such as UNCTAD, IMF, OECD. Before any time series analysis, it is interesting to verify the stationarity property of the variables. To do this, the Augmented Dickey Fuller (ADF) test is applied to verify the level of integration of the variables, as well, the VAR modeling technique can be applied. The equation of our model to be estimated is as follows:

$$IDE = f(TO, MS, IT) \quad (3)$$

$$DFDI_t = C_0 + \sum_{i=1}^{p=2} \varphi_i L^i DFDI_t + \sum_{i=1}^{p=2} \gamma_i L^i DTO_t + \sum_{i=1}^{p=2} \theta_i L^i DMS_t + \sum_{i=1}^{p=2} \vartheta_i L^i DIT_t + \varepsilon_t \quad (4)$$

Where:

- DFDI: represents differentiated first-order foreign direct investment flows.
- DTO: first-order differentiated Trade Openness is calculated by the formula:
- $TO = \frac{mean(export + import)}{GDP} * 100$
- DMS: first-order differentiated market size, is given by the formula:
- $MS = prod + (import - export)$

3.2. Empirical Analysis:

3.2.1. Unit root test :

Before any estimation, it is necessary to ensure that all variables selected are stationary to avoid spurious results, using an augmented dickey fuller test (ADF) the results in a table (2) indicate that our variables used in the modeling are stationary in first difference.

Table 2: Unit Root Test Results (ADF)

Null Hypothesis: the variable has a unit root					
With Constant	**At Level**				
		IDE	IT	TO	MS
	t-Statistic	-1.5969	-2.5766	-0.8831	2.8773
	Prob.	***0.4709***	***0.1096***	***0.7786***	***1.0000***
With Constant & Trend	t-Statistic	-1.7960	-2.5625	-1.1327	-2.4335
	Prob.	***0.6796***	***0.2985***	***0.9050***	***0.3558***
Without Constant & Trend	t-Statistic	1.6696	1.5005	1.4530	13.1869
	Prob.	***0.9739***	***0.9636***	***0.9601***	***1.0000***
	At First Difference				
With Constant		d(IDE)	d(IT)	d(TO)	d(TM)
	t-Statistic	-6.1256	-5.4325	-4.3886	-4.8789
	Prob.	***0.0000***	***0.0001***	***0.0019***	***0.0006***
		***	***	***	***
With Constant & Trend	t-Statistic	-7.1811	-5.8070	-4.4040	-5.4444
	Prob.	***0.0000***	***0.0003***	***0.0086***	***0.0008***
		***	***	***	***
Without Constant & Trend	t-Statistic	-5.0340	-4.9579	-4.0216	-0.0020
	Prob.	***0.0000***	***0.0000***	***0.0003***	***0.6725***
		***	***	***	n0
Notes: a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant					

Source**:** Researcher Own Calculation From Eviews Software Program

3.2.2. The determination of the optimal Lag of the VAR model :

The specification of the optimal lags is a basic step to perform the VAR model. In our study, we retain the number of lags 2, i.e. we will estimate a two-order autoregressive VAR(2) model.

Table 3: Selection of the Appropriate Lag Length

VAR Lag Order Selection Criteria			
Lag	AIC	SC	HQ
0	-11.26724	-10.97471	-11.18611
1	-15.91510	-13.86739	-15.34716
2	-27.86680*	-22.30873*	-26.32523*
* indicates lag order selected by the criterion			
AIC: Akaike information criterion			
SC: Schwarz information criterion			
HQ: Hannan-Quinn information criterion			

Source**:** Researcher Own Calculation From Eviews Software Program

According to Akaike and Schwarz's criterion, the optimal lags selection is p=2, so our model is a VAR(2).

3.2.3. Variance decomposition Results:

Table 4: Variance Decomposition of FDI Inflows

Variance Decomposition of DIDE:				
Period	DFDI	DIT	DMS	DTO
1	100.0000	0.000000	0.000000	0.000000
2	73.11832	1.493703	19.68212	5.705855
3	66.06066	9.337908	19.34361	5.257817
4	66.85630	9.119926	18.82314	5.200628
5	66.87052	9.076670	18.75900	5.293803
6	66.64310	9.475241	18.62482	5.256837
7	66.71297	9.451474	18.58275	5.252813
8	66.72054	9.457316	18.57080	5.251339
9	66.72395	9.464987	18.56237	5.248691
10	66.72909	9.463571	18.55902	5.248316

Source: Researcher Own Calculation From Eviews Software Program

According to the results from table 4, in the first year, the variance of the FDI is 100% due to its own innovations and 0% due to other variables. However, this source of variation decreases to 66.72% after 10 years. Thus, with an average value of 17% over 10 years, a variation in FDI comes from variation in MS, on average, 7% comes from the IT variable, and 5% comes from the TO variable. It is concluded that the contribution of investment in transport infrastructure to the FDI variation is relatively small, about 7% of the variation in FDI is explained by infrastructure investment, while the market size variable is the strongest in explaining FDI, so 17% variation in FDI comes from market size.

3.2.4. Impulse Response Function Results :

A shock to the n-th variable not only directly affects the latter, but is also transmitted to all other endogenous variables through the dynamic structure of the VAR. A shock response function allows us to trace the effect of a point shock to one of the innovations on the current and future values of the endogenous variables.

Table 5: Analyzing the Impact of the Response Function

Response of DIDE:				
Period	DIDE	DIT	DMS	DTO
1	0.141414	0.000000	0.000000	0.000000
2	0.023820	-0.020497	0.074403	0.040060

3	0.012573	0.050092	0.023072	-0.006675
4	0.033295	- 0.006985	0.008864	0.006991
5	0.011199	- 0.001506	0.003597	0.006324
6	0.009266	0.012397	0.000896	-0.000724
7	0.009139	0.000835	0.001706	0.001851
8	0.004099	- 0.001991	0.000123	0.000797
9	0.003524	- 0.002037	0.000585	9.64E-05
10	0.002432	- 0.000356	0.000245	0.000454

Source: Researcher Own Calculation From Eviews Software Program

Based on the results, we see that the increase of MS, and TO will affect the direction of FDI growth from the second year, then the rhythm decreases gradually. In particular, a 1% increase in MS can bring the effect of 0.07% of FDI growth in the second year and an increase of 0.0002% in the tenth year. However, a 1% increase in TO can bring the effect of 0.04% of FDI growth in the second year and an increase of 0.0004% in the tenth year. Rather, investment in transport infrastructure (IT) has a negative impact on FDI in the second year. Specifically, a 1% decrease in IT can decrease 0.02% FDI in the second year, even negative in the tenth year. As a result, market size, and trade openness have a positive impact on attracting FDI in India.

3.2.5. Long-Term Causality :

Two major tests have been devised, that of (Granger, 1969) and that of (Sims, 1972). Recall that Granger's test applies only to stationary series.

To analyze the long-term relationship between the foreign direct investment variable and the explanatory variables, we will use the approach of (Toda & Yamamotob, 1995) which is based on the augmented VAR model $(p + dmax)$, that is, with additional lags determined by the maximum order of integration of the series under consideration, then a level VAR process must be estimated. This approach does not require a limited order of integration. The procedure is done in two steps: in the first step, we determine the maximum degree of integration of the series $(dmax)$ and the optimal number of lags (p) of the VAR process. In a second step, we estimate a VAR model of order $(p + dmax)$.

$$FDI_t = C_0 + \sum_{i=1}^{p+d_{max}} \varphi_i L^i FDI_t + \sum_{i=1}^{p+d_{max}} \gamma_i L^i DTO_t + \sum_{i=1}^{p+d_{max}} \theta_i L^i MS_t + \sum_{i=1}^{p+d_{max}} \vartheta_i L^i IT_t + \varepsilon_t \qquad (5)$$

With :C_0 the constant ; γ_i , $\varphi_i, \vartheta_i, \theta_i$ are the parameters of the model ;

p is the optimal delay order;

$dmax$ is the maximum order of integration of the series in the system ;

the estimation results are presented in the following table:

Table 6: Toda-Yamamoto Causality Result

Pairwise Granger Causality Tests		
Sample: 1990 2018		
Null Hypothesis:	F-Statistic	Prob.
$TO \Rightarrow IDE$	4.04191	0.0082
IDE ⇏TO	1.64838	0.2152
$MS \Rightarrow IDE$	3.93228	0.0347
$IDE \nRightarrow MS$	0.02037	0.9799
$IT \nRightarrow IDE$	0.99645	0.3852
$IDE \nRightarrow IT$	1.36400	0.2764
$MS \nRightarrow TO$	3.42506	0.0507

$TO \nRightarrow MS$	0.10332	0.9023
$IT \nRightarrow TO$	2.04371	0.1534
$TO \nRightarrow IT$	1.61405	0.2218
$IT \nRightarrow MS$	0.13811	0.8718
$MS \nRightarrow IT$	0.90727	0.4182

Source: Author's computation using Eviews 9 econometric software

The results in the table above proved that infrastructure does not cause FDI in the long term. These findings are in line with similar research of (Pradhan & Rudra Prakash, 2008) that shows that infrastructure has a negative impact on India's FDI inflows. Instead, market size, trade openness to be key drivers of foreign direct investment.

To improve the quality of infrastructure and to exert a spillover effect on business investment, the authorities have increased public investment, giving priority to energy and transport infrastructure. The number of contracts awarded for road projects has increased steadily since 2014, and several rail projects have been approved after years of low public investment (OECD, 2017).

3.2.6. Model Validation :

To confirm the various results of the VAR(2) model, its econometric robustness needs to be tested. Several tests are used to study the validity of the VAR model.

3.2.6.1. Stationary test of the VAR model :

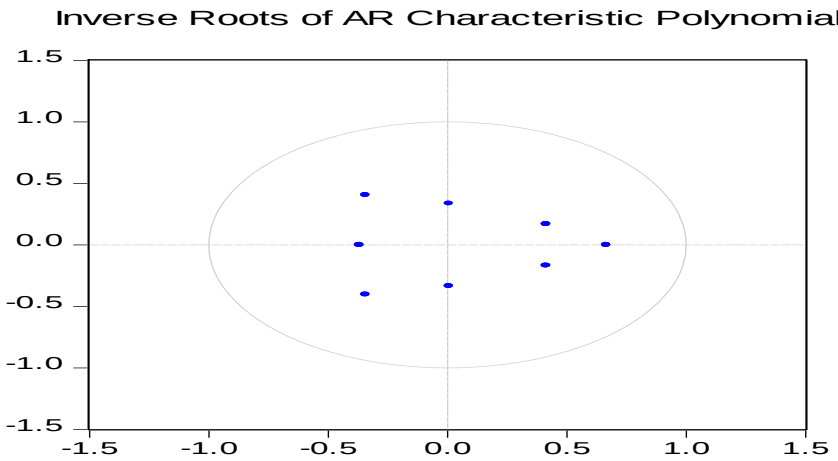

Figure 1: VAR(2) stationary test

A VAR(p) process is stationary if all eigenvalues are inside the unit circle, then the following figure shows that the VAR(2) model is stationary.

3.2.6.2. Jrque-Bera normality test :

This test allows us to know if the variables of the model are normally distributed or not, this test is performed using the Jarque-Bera statistic and follows a chi-square law with two degrees of freedom at the 5% threshold equal to 5.99. If the Jarque-Bera statistic is greater than 5.99, the null hypothesis of normality of the residuals is rejected. The table below presents the result of the test.

Table 7: Normality Test

Component	Jarque-Bera	Df	Prob.
1	1.091250	2	0.5795
2	0.526522	2	0.7685
3	2.737685	2	0.2544

4	1.439780	2	0.4868
Joint	**5.795237**	**8**	**0.6702**

Source**:** Researcher Own Calculation From Eviews Software Program

The results obtained from this test show that the probability (P-value) is equal to 0.6702 (a probability that is greater than 5%). This means that the variables of our model are normaly distributed.

3.2.6.3. LM test of error autocorrelation

In order to detect the autocorrelation of errors, we use the LM test whose null hypothesis is the absence of autocorrelation. If the probability associated with the test is less than 5%, then we reject H0.

Table 8: Error Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.463478	Prob. F(3,3)	0.7281
Obs*R-squared	7.917410	Prob. Chi-Square(3)	0.0477

Source: Researcher Own Calculation From Eviews Software Program

According to the above table, for a lags number of 1, the LM-Stat probability is equal to 0.05< 0.7281, these residues are not-auto-correlated.

3.2.6.4. Heteroskedasticity test :

Heteroskedasticity qualifies that the errors do not have constant variance over time. However, the series must be homoscedastic to present the best estimators. We will study here the ARCH test : the null hypothesis is the absence of heteroskedasticity, the rule of decision is to reject H0 if the probability is less than 5%.

Table 9: Heteroskedasticity test

Heteroskedasticity Test: ARCH			
F-statistic	0.458580	Prob. F(3,18)	0.7146
Obs*R-squared	1.562071	Prob. Chi-Square(3)	0.6680

Source: Researcher Own Calculation From Eviews Software Program

The tests carried out show that the VAR model (2) is stationary and stable and thus a normal distribution of the variables. In summary, our VAR(2) model is valid.

4. Result summary and conclusion :

In this research entitled "Transport Infrastructure as a Lever to Attract Foreign Investment (FDI) in India", we analyze the determinants of foreign direct investment in India. Using the autoregressive vector, it is concluded that the variables respectively market size (MS), investment in transport infrastructure (IT), openness rate (TO), are the ultimate determinants influencing inward FDI.

5. Conclusion :

Economic theory expects that foreign investment boosts the economic growth of nations. The positive impact of foreign direct investment on economic development is widely disseminated in the literature, so attracting private capital, especially foreign direct investment (FDI), is a major challenge for India. India's economy has experienced a remarkable boom, so India is relying on an efficient strategy to attract international capital, economic diversification, and to fill the gap in its industrial strategy.

The paper suggests for increasing FDI inflows, and benefits of foreign direct investment, India should be based on the policy of globalization and infrastructure development. Thus, the government must pay more attention to the development of tangible and intangible infrastructure. The availability of infrastructure in a country can certainly attract FDI and further accelerate the pace of economic development. If India needs to generate additional FDI and economic growth, there is an urgent need to promote the development of transport infrastructure as a precondition for

faster economic growth. Similarly, sustaining high economic growth can accelerate both FDI inflows and the rapid development of India's transport infrastructure.

References :.

[1] Dunning, J. (1988). The theory of international production. *The International Trade Journal*, 21-66.
[2] Granger, C. (1969). Investigating Causal Relations by Econometric Models and Cross-spectral Methods. *Econometrica*, 424-438.
[3] Barry , E., & Poonam, G. (2016). Managing Sudden Stops. *Policy Research Working Paper* , 1-35.
[4] CEBR. (2019). *World Economic League Table 2019.* UK.
[5] CEBR. (2019). *World Economic League Table 2020.* UK.
[6] CEBR. (2020). *World Economic League Table 2021*. UK: CEBR.
[7] Ch. , A., Muhammad , I., Hassan , M. A., & Muhammad , A. (2011). The Impact of Infrastructure on Foreign Direct Investment: The Case of Pakistan. *International Journal of Business and Management*, 268-276.
[8] CYPRIAN , C. (2020). Outpouring of Foreign Direct Investment In: Push or Pull? *Journal of Global Economics, Management and Business*, 1-11.
[9] Fratzscher, M. (2011). Capital flows, push versus pull factors and the global financial crisis. *WORKING PAPER SERIES*, 1-52.
[10] Javeria , M., & Ashok, M. (2020). Foreign direct investment into BRICS: an empirical analysis. *Transnational Corporations Review*, 1-10.
[11] Kristin , J., & Francis, E. (2012). Capital flow waves: Surges, stops, flight, and retrenchment. *Journal of International Economics*, 235-251.
[12] Nor'Aznin , A., Siti , H. C., & Mukaramah, H. (2012). The Impact of Infrastructure on Foreign Direct Investment: The Case of Malaysia. *Social and Behavioral Sciences*, 205-211.
[13] Normaz , I. (2009). "The Determinant of Foreign Direct Investment in ASEAN: A Semi-Gravity Approach. *Springer*, 710-722.
[14] OECD. (2017). *Études économiques de l'OCDE :Inde.*
[15] Oluyele , A. (2003). Flow of Foreign Direct Investment to Hitherto Neglected Developing. *World Institute for Development Economics Research* , 1-26.
[16] Paul R., K. (1991). *Geography and Trade.* France: The MIT Press.
[17] Reenu , K., & Anil , K. S. (2017). Determinants of foreign direct investment in developing countries: a panel data study. *International Journal of Emerging Markets*, 1-26.
[18] Rudra , P. P. (2008). Does Infrastructure Play a Role in Foreign Direct Investment? *Journal of Financial Economics*, 48-60.
[19] Rudra , P., Neville, R., Yuosre , B., & Bele , S. (2013). Transport Infrastructure, Foreign Direct Investment and Economic Growth Interactions in India: The ARDL Bounds. *Social and Behavioral Sciences*, 914-921.
[20] Sebastian, A. L. (2015). FDI Determinants in BRICS. *CES Working Papers*, 1-14.
[21] Sims, C. (1972). Money, Income, and Causality. *The American Economic Review*, 540-552.
[22] Stephen, H. (1966). The Impact of the Multinational Firm. *Economic Growth Center*, 1-38.
[23] Toda , H., & Yamamotob, T. (1995). Statistical inference in vector autoregressions with possibly integrated processes. *Journal of Econometrics* , 225-250.
[24] UNACTAD. (2018). L'investissement et les Nouvelles Politiques Industrielles. nations unies.
[25] UNACTED. (2019). Special Economic Zones. United Nations: UNACTED.
[26] WB. (2019). Training for Reform. Washington.