



Foreign Direct Investment and Economic Growth: Literature from 1980 to 2018

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ABSTRACT

Foreign direct investment (FDI) is argued to play a pivotal role in accelerating economic growth (EG) of a host country especially in developing and Organization for Economic Co-operation and Development countries. The papers reviewed have a good representation of diverse empirical works of over three decades. It examines the relationship between FDI and EG from 1980 up to 2018. The result is mixed but heavily skewed towards significantly positive effect, but in some cases it is negative or even null of FDI on EG. We also find market size, economic freedom, availability of internet as very important determinants for FDI location and for it to create positive impact on overall EG.

Keywords: Economic Growth, Foreign Direct Investment, Literature Review

JEL Classifications: O40, O47

1. INTRODUCTION

Development economists' know that rapid growth requires a high level of investment, which in the absence of foreign direct investment (FDI) and aids, must derive from high saving rates. Although rapid gross national product gains are possible through such 'inward looking' policies (as savings), they are historically rare especially in less developed countries (LDCs). "Often, the most rapidly growing economies have been driven by an external engine" (Moon and Dixon, 1993). Globalization and global communication has made it easier to mobilize funds and capital across borders and that is why a lot of interest and focus is on FDI. FDI is an investment that involves a long term relationship, reflecting a lasting interest and is less volatile than portfolio. FDI is about a resident in one country investing in another economy

other than where he or she resides. FDI is generally seen as a composite bundle of capital stock and technology that can boast economic growth (EG) directly or indirectly through channels and spillovers (Almfraji and Almsafir, 2014; De Mello 1999). That FDI is the engine of growth has gone viral among development economists (Adeniyi et al., 2015; Nwaogu and Michael, 2015; Chowdhury, 2016; Soleimani et al., 2016; Pradhan et al., 2016; Simionescu, 2016, Faisal et al., 2016; Alzaidy et al., 2017; Begum et al., 2018; Caesar et al., 2018).

However, this seeming consensus (Ozturk, 2007) that FDI is a 'growth enabler' is being questioned by mixed result in the literature. In view of the differences observed in empirical findings, substantial interest is weighed towards investigating the

fundamental factors that drive FDI. It is important therefore to make an aggregation of these findings to underpin the divergence. This literature review concentrates on the impact of foreign capital inflows on a host country's domestic investment and growth, especially in LDCs and organization for economic co-operation and development (OECD) countries. The developing countries are our major target in this circumstance based on the "catch-up effect" hypothesis of growth rate. It is assumed that the growth rate of developing countries will be higher; an example is China, until it reaches a threshold. In this review, we are giving attention to developing economies based on the expected marginal gains. Notwithstanding, literature on other economies would be partially treated. We are also concentrating only on empirical work so as to determine the statistical method used in the analysis.

We shall present a literature review of empirical studies drawn from findings in developing countries and some OECD countries published from 1980 up to 2018. The rest of the paper is as follows: In point 2, we have the literature review and other sub titles, point 3, brief discussions, and point 4, the conclusion.

2. LITERATURE REVIEW

2.1. Definition of FDI

FDI is viewed as how an investing country exercises de facto or de jure control of at least 10 per cent or more interest in an enterprise's voting rights (Jhingan, 2012). While "Farrell (2008), defines FDI as a package of capital, technology, management and entrepreneurship, which allows a firm operate and provide goods and services in a foreign market." Such companies or concerns are known as transnational corporations or multinational corporations (MNCs). Another type of foreign capital flow is indirect investment, often called "portfolio" or "rentier" investment, which consist mainly of holdings or transferable securities that do not amount to right of control of the investment or company. When starting up a foreign affiliate, MNCs are not likely to give the source of their competitive advantage away for free. FDI may come in the form of vertical (inter-industry), with vertical spillovers through forward and backward linkages with domestic companies. It can also take the form of horizontal (intra-industry) with horizontal spillovers. Horizontal FDI access advances to competing domestic firms that operate in the same market and seeks to take advantage of a new large market, which is considered as the pivot on which globalization policy revolves (Maskus, 2002; Bótríc and Škuflić, 2006). According to Bótríc and Škuflić (2006), horizontal FDI replicates the whole product process of the home country in a foreign country."

2.2. Definitions of EG

EG has been defined by Todaro and Stephen (2011) as the steady process by which the productive capacity of the economy is increased overtime to bring about rising levels of national income. Growth depends to a large extent on availability of resources and how they are harnessed by that country. The better the quality and quantity of the resources the more potential a country grows. In neoclassical theory, EG is brought about by increases in the quantity of factors of production and the efficiency of their allocation. In economics, "EG" or EG theory typically refers to

the growth of potential output i.e., production at full employment which is caused by growth in aggregate demand. It is usually calculated in real terms i.e., inflation - adjusted terms, in order to get rid of the negative effects of inflation (Almfraji and Almsafir, 2014). A growth model therefore, is a functional economic relationship in which the growth rate of gross domestic product (g) depends directly on the national net savings rate (s) and inversely on the national capital-output ratio (c) (Domar, 1939; 1946).

2.3. Relation between FDI and EG

Theoretically, the literature seems to suggest that FDI increases EG through capital accumulation, and the incorporation of new inputs and foreign technologies that leads to productivity and efficiency gains by local firms. However, empirically the evidence on this notion is not unanimous. The often-mentioned benefits from FDI such as transfers of technology and management know-how, introduction of new processes, and employee training, tend to relate to the manufacturing sector rather than the agriculture or mining sectors (Findlay, 1978). It is obvious that in the absence of linkages, foreign investments could have limited effect in spurring growth in the host economy. The grudge against what has become known as the "enclave" type of development is due to this ability of primary products from mines, wells, and plantations to slip out of a country without leaving much of the trace in the rest of the economy (Hirschman, 1958). Other reasons adduced for diverse outcomes include: Sample selection differences, estimation techniques (e.g., OLS, granger causality, co-integration, VAR), time period differences, estimation methodology (i.e., time series verses cross-section) etc. Table 1 presents researches on the impact of FDI on EG for the period 1980–2000 and a preliminary analysis.

2.4. Aggregation of Researches on FDI-EG Relation (1980–2000)

The idea that FDI plays a positive role in EG of a country actually grew out of the simple Keynesian Harrod-Domar growth model and its later extensions into the various two-gap models Chenery and Allen (1966). Harrod-Domar growth theories in advanced economies are associated with saving function, autonomous and induced investment. From Table 1, Feldstein (1983) applied OLS to investigate the relationship between domestic savings and foreign capital flows in 17 countries during 1960–1979. Their findings show that consistent increase in domestic savings leads to a simultaneous increase in domestic investment rates. Beginning with the first period in our review (1980–2000) an OLS regression for Nigeria in the period 1970–2000, Osaghale and Amonhienan (1987) found that FDI is positively related to EG. Also, Osaghale and Amonhienan (1987) in an applied stepwise analysis for Puerto Rico, show that low cost of labour (perhaps Arthur Lewis kind of surplus labour) does not influence FDI attraction. Usually, low labour has been an attraction for FDI location in LDCs.

Fatehi and Safizadeh (1994) applied multiple analyses to examine the relation between FDI political and social change in 15 LDCs during the period 190–1982. Their findings show that unstable political order creates unstable FDI fluctuations. Bosworth and Collins (1999) examined EG experiences of 88 less developed and industrial economies during the period 1960–1992 using both approaches of growth accounting and regression methods.

Table 1: Researches on the general FDI-EG relation (1980–2000)

FDI effects on EG	Sources	Data span	Variables used	Empirical approach	Objectives	Remarks
Positive	Feldstein (1983)	17 countries 1960–1979	Net FDI, GDP and domestic savings	OLS regression	Investigate the relationship between domestic savings and capital movements	Increase in domestic savings causes increase in domestic investment rates
Positive	Oseghale and Amonkhenan (1987)	Nigeria 1970–2000	GDP, FDI in sectors- manufacturing communication and transport	OLS regressions	Investigate between oil export, FDI in Nigeria and foreign borrowing	FDI is positively related to EG
Positive	Santiago (1987)	Puerto Rico (1979)	FDI, firm size, capital intensity of production, market concentration	Applied stepwise regression	Investigate the impact of FDI on exports and employment	Low labour cost is not an important factor to attract FDI
Positive	Savvides (1990)	47 LDCs (1980–86)	Commercial inflows and FDI	OLS and 2 stage Regression	To investigate the interdependence between credit worthiness and FDI	Capital inflows affects credit worthiness but foreign commercial inflow does not
Positive	Smits (1988)	30 countries 1978	Value of exports, import, GDP, total pop and FDI stock	2 SLS (two stage least squares)	Investigate the relationship between export and import and FDI	Strong correlation among exports, GDP, FDI for low population areas
Ambiguous	Fatehi and Satizade (1994)	15 LDCs 1950–1982	FDI in manufacturing, mining and petroleum, GDP and population	Multiple regression analysis	To investigate impact of social and political change on FDI	No stable pattern of FDI because of unstable polity
Mixed	Bosworth and Collins (1995)	88 LDCS 1960–1992	Gross domestic product, FDI	OLS regressions	Investigate the relationship between FDI and EG	TFP is small in LDCs while human capital and physical capital accounts more
Positive	Aitken et al. (1996)	3 countries 1987–1990	Wages, the share of employees in foreign ownership enterprise, royalty payments and capital stock	2 SLS	Relationship between wages and foreign ownership	FDI is found to be positively related to higher wages
Positive	Balasubramanyan (1996)	46 Countries 1970–1985	GDP, FDI, openness	OLS regressions	Interactions of FDI and trade openness	Positive
Positive with human capital	Borensztein et al. (1998)	69 countries 1970–1989	FDI, human capital, GDP, Govt expenditure, Pol instability, Pol rights, inflation, exch rates and quality of institutions	2 SLS, 3 SLS (three stage least squares)	Impact of FDI on 69 countries	FDI positively related to transfer of technology, to EG especially where human capital is sufficient
Negative	Kentor (1996)	79 countries DC and LDCs	GDP, trade openness, FDI	OLS regressions	Interactions between FDI and GDP	Adverse

FDI: Foreign direct investment, TFP: Total factor productivity, EG: Economic growth, LDCs: Less developed countries

The findings of the research shows that increase in total factor productivity is small in LDCs and the accumulation of physical and human capital account for most growth per worker. Balasubramanyam et al. (1996), using a cross-sectional data of 46 LDCs on the relations between FDI and EG found that the growth effect of FDI is positive on the export promoting country and negative in import substituting economies. A further support is on a study by Borensztein et al. (1998) based on 69 developing economies, that examines the role of FDI in the process of technology diffusion and EG. The paper concludes that FDI has a positive effect on EG especially when that economy has crossed a certain level of human capital threshold. A contrary result of Kentor (1998) may not suffice for the positive effect of FDI. In a study of 46 developing countries 1970–1985, found that the role of FDI on EG is negative.

2.5. Aggregation of Researches on FDI-EG Relation (2001–2018)

In the second period of our review (2001–2018) as contained in Table 2, we have 20 empirical findings. Beginning with Choe (2003), who applied a granger causality test based on a data 1971–1995 of 80 developed and developing countries, to determine the causality between FDI and EG. The findings show that FDI granger causes EG. However, having established a positive impact on most of the papers presented in the first segment (1980–2000), we may cluster the rest of our reviews in the following way. Eleven papers beginning with (Bongoa and Sanchez-Robles, 2003; Khaliq and Noy, 2007; Ayanwale, 2007; Antwi, 2013; and Anochiwa, 2013) to mention but a few found positive relationship between FDI and EG. Bayer and Ozturk (2016) and Bayer and Marius (2018) examined the causal relationship between financial development and FDI inflows in Turkey over the period 1974–2015, using a bootstrap Granger causality test and 1996–2015 for European countries using panel co-integration causality tests, respectively. They found a one-way causality from development of financial sectors to FDI inflows. It is important to mention Sunde (2017), who investigated the impact of FDI on EG in South Africa. It adopted Bound estimation technique and the sample period 1990–2014. The findings show that both FDI inflows and exports lead to EG. Again, another research by Abdul et al. (2017) employed autoregressive distributed lag (ARDL) with sample size 1970–2013 to investigate the impact of FDI on EG in Singapore. The estimated long-run elasticity indicated that FDI inflows lead to higher EG in Singapore. They applied diverse empirical approaches from OLS regression to 2 SLS, GMM and ECM.

Conversely, Agosin and Machado (2005), using generalized method of moment (GMM) for 12 countries with data 1971–2000 investigated the impact of FDI on EG and the result was negative. Another negative result is Adams (2009) for 42 LDCs countries 1990–2003 using OLS regression and Jilenga et al. (2016) for Tanzania. Jilenga data spanned 1971–2011 and they applied ARDL model and Bounds test approach. Other papers include Feeny et al. (2014), applying OLS and GMM approach on Pacific Island 1971–2010 data. Investigating the relationship between FDI and EG found a weak impact. Acaravci and Ozturk (2012) using ARDL bounds testing approach for 10 OECD countries and data 1994–2008, did a causality test and found mixed result. Schneider

(2005) for 47 countries 1970–1990 using OLS regression and Jyun (2008) for 62 countries 1975–2000, using threshold regression technique, both got ambiguous result between FDI and EG.

2.6. Factors that Determine/Influence FDI Locations

Table 3, gives us a glimpse of some of the empirical findings on the factors that determine FDI location. We have earlier posited in this paper that FDI is an investment that involves a long term relationship. FDI is not “helicopter money” but rather an investment with lasting interest. The fact that we have different outcomes in terms of impact of FDI on host country, presupposes that there are divers influences on FDI attraction, it is therefore equally important to review what drives FDI or influences its location. The factors to attract foreign investors to relocate to a country may vary by location index or type of industry (primary, secondary, and tertiary) or other factors. Beginning with the findings of Erbe (1970) who investigated the causes and effects of the private capitals movement in Germany during 1955 – 1969, and Branson and Hill (1971) on capital movements among 6 OECD countries during 1960 – 1969; others are (Bayar and Ozel, 2014; Enison, 2017 and Neha and Monica, 2018) all show that some factors truly influence FDI location.

For example, Culem (1988) used OLS and GLS to investigate the location determinant of FDI in 6 EU countries during the period 1969–1982. The variables considered include GDP growth rate, tariff barriers, labour costs and nominal interest rate. It found market size and tariff barriers important location barriers of FDI. Bevan et al. (2004) used random effect (RE) to study what drives FDI in 11 EU transition economies during 1994–2000. The variables used include trade openness; country’s trading size, institutional legal and political conditions of the country. It found labour cost, market size as determinants of FDI. Again, Farrell et al. (2004) applied pooled regression technique to investigate what influences Japanese investment in 15 countries during the period 1984–1998. It used variables such as Japanese export and import, labour cost, market size. It also found that market size is a key factor in attracting FDI.

Furthermore, similar to (Borensztein et al., 1998; De Mello, 1999) by utilizing a sample of OECD and non-OECD countries over the period 1970–90, concludes that the long-term growth in host countries is determined by the spillovers of technology and knowledge from the investing countries to host countries, and its extent is determined by the complementary and substitution between FDI and domestic investment. In the non-OECD sample, they demonstrated no causation from FDI to growth based on fixed effects regressions and a negative short run impact of FDI on GDP, indicating that growth benefits may be restricted to higher income countries. In a panel data framework for a sample of 18 Latin American countries for the period 1970–99, Bengoa and Sanchez-Robles (2003) stated that in order for a positive effect from FDI to be achieved, the country must have an adequate level of economic stability, and liberalized capital markets, as well as human capital. Li and Liu (2005) in a panel data analysis for 84 countries over the period 1970–99 found that FDI affects growth directly and also indirectly through its interaction with human capital.

Table 2: Researches on the general FDI-EG relation (2001–2018)

FDI effects on EG	Sources	Data span	Variables used	Empirical approach	Objectives	Remarks
Positive	Choe (2003)	80 DCs and LDCs 1971–1995	FDI, GDP and other control variables	Granger causality test of holtzeakin Panel data	Causality test between FDI and EG	FDI granger causes EG
Positive	Bengoa and Sanchez (2003)	18 Latin American states 1970-1999	FDI, Mkt size, economic freedom, human capital and host country's economic condition		Investigate interactions among FDI, EG and economic freedom	There is a positive correlation between economic freedom and FDI, and FDI to EG
Mixed	Alfaro (2003)	47 countries 1981–1999	GDP, FDI into Primary, manufacturing and services	OLS	Impact of FDI on some Sectors	FDI has negative effect on primary sector, in Manufacturing positive and in growth ambiguous
Negative	Agosin and Machado (2005)	12 countries 1971–2000	Private investment, FDI, GDP	GMM	Impact of FDI on domestic investment	FDI do not influence domestic investment
Ambiguous	Schneider (2005)	47 countries 1970-1990	Human capital, FDI, infrastructure, R&D expenditure, IPR index, physical capital stock, imports and innovative rate	OLS regression	Interactions between international trade, EG and IPR	Influence between FDI and EG is ambiguous
Positive	Khaliq and Noy (2007)	Indonesia 1997–2006	GDP, FDI in oil, mining and primary sector	OLS, 2 SLS	Impact of foreign investment on EG	FDI positively related to EG but negative with mining, and primary sector
Positive	Ayanwale (2007)	Nigeria 1970–2002	GDP, OilFDI, trade and commerce FDI, communication FDI, manufacturing FDI	OLS 2 SLS	Impact of FDI on EG	FDI is related to EG and oil but negative with manufacturing
Ambiguous	Jyun (2008)	62 countries 1975–2000	Human capital, FDI, initial GDP	Threshold regression technique	Relationship between FDI and EG	FDI plays ambiguous role in EG
Negative	Adams (2009)	42 LDCs 1990–2003	FDI, human capital, GDP, inflation, openness, government consumption	OLS regression	Interaction among FDI, private investment and EG	FDI is negatively related to investment and also causes crowding out effect
Positive	Shaikh (2010)	Malaysia 1970–2005	FDI, GDP and other control variables	OLS regression	Impact of FDI on EG	There is significant relationship between EG and FDI in Malaysia
Mixed	Acaravci and Ozturk (2012)	10 OECD 1994–2008	FDI, export and EG (GDP)	ARDL bounds testing approach	Causality relationship	The result is mixed. Four countries positive and six negative
Positive	Omoju and Adesanya (2012)	Nigeria 1980–2010	Trade Openness, FDI, government exp., exchange rate, GDP	OLS regression	Relationship between FDI and the variables	Trade, FDI, Govt expenditure are positive to EG

(Contd...)

Table 2: (Continued)

FDI effects on EG	Sources	Data span	Variables used	Empirical approach	Objectives	Remarks
Positive	Antwi (2013)	Ghana 1980–2010	GDP growth rate, GNI, Manufacturing value added, external debt stock, inflation, FDI	OLS	Impact of FDI to EG	The relationship between FDI and EG is positive
Positive	Anochiwa (2013)	Nigeria 1970–2010	GDP, FDI, human capital, inflation rate, infrastructure and domestic investment	OLS ECM	Impact of FDI on EG	FDI is positively related to growth and human capital
Weak	Feeny et al. (2014)	Pacific Island 1971–2010	GDP, FDI, the literacy ratio, inflation rate, imports, domestic investment and trade openness	OLS GMM	Investigate the impact of FDI on EG	Impact of FDI on EG is weak
Positive	Salin and Ege (2015)	Turkey, Greece, and others 1996–2012	Financial Dev., FDI, GDP	Bootstrap causality test	Causal interaction between FDI and financial., dev	Unilateral causality from FDI inflows to financial development in Bulgaria and Greece but two-way causality in Turkey
Negative	Jilenga et al. (2016)	Tanzania 1971–2011	External debt, GDP, FDI, inflation	ARDL model and bounds test approach	Investigate the relations between FDI, debt and EG	FDI exhibits negative impact on growth. No directional causality in the short run.
One way causality	Bayer and Ozturk (2016)	Turkey 1974–2015	FDI, GDP	Bootstrap granger causality tests	Examined causal relationship between financial Dev. and FDI	One way causality from development of financial sectors to FDI inflows
Positive	Fauzel (2016)	Developing country 1990–2013	Financial development, FDI, GDP	Panel of VAR model	Relationship between FDI and Fin. Dev.	FDI contributes to Fin. development
FDI depends on EG	Naqeeb (2016)	1970-2012	GDP, FDI, exports	VECM	Relationship between human capital, FDI, and growth	Low human capital affects EG, FDI depends on EG
Positive	Seiko (2016)	14 Eastern Africa countries. (1980-2013)	GDP, FDI	Dynamic GMM estimators	Impact of FDI to EG	The relationship between FDI and EG is positive
Positive	Sunde (2017)	South Africa 1990–2014	GDP, FDI, export	Bound estimation	Investigate the impact of FDI on EG	FDI exhibits positive influence
Positive	Abdul et al. (2017)	Singapore 1970–2013	GDP, trade openness, financial development, FDI	ARDL estimation technique	Investigate the impact of FDI on EG	FDI exhibits positive impact
Positive	Bayer and Marius (2018)	Central and Eastern European countries 1996–2015	FDI, portfolio invest., domestic invest., GDP	A panel co-integration and causality test	Interaction between FDI inflows and fin., development	One way causality from dev of Fin to FDI inflows in the short run

FDI: Foreign direct investment, EG: Economic growth, LDCs: Less developed countries, GMM: Generalized method of moments

Table 3: Researches on the factors that determine FDI-EG relation (1988–2018)

Factors	Effects on FDI-EG	Sources	Data span/region	Empirical approach	Remarks
Market size	Positive	Culem (1988)	6 countries 1969–1982	OLS, GLS (generalized least squares)	Market size, growth rate and tariff barriers influence FDI
Open trade regime	Positive	Balasupramanyam et al. (1996)	46 developing countries 1970–9185	Cross sectional data on fixed effect model	FDI positive in exporting promoting country and negative in import substituting country
Human capital threshold	Positive	Borensztein et al. (1998)	69 countries, 1970–1989	Panel regression	FDI exerts a positive impact on a certain human capital threshold.
Economic Freedom attracts FDI	Positive	Bengoa and Sanchez-Robles (2003)	18 Latin American countries 1970–1999	Panel estimation methodology; Fraser and institute index of economic freedom	Economic freedom attracts more FDI and higher growth
The growth of Internet	Positive	Choi (2003)	53 countries 1994–1996	Weighted least square Tobit regression	Growth in internet use contributes to FDI location
Financial market development	Positive	Alfaro et al. (2004)	71 DCs and LDCs, 1975–1995	OLS regression and IV technique	FDI depends on growth of local financial market
Labour cost and good institutions	Positive	Bevan et al. (2004)	11 European Countries, 1994-2000	RE	FDI is attracted by low labour cost and good institutions
Market size		Farrell et al. (2004)	15 countries 1984–1998	Pooled regression	Market size, macroeconomic condition
Technological gap	Negative	Li and Liu (2005)	21 DCs, 63 LDCs, 1970-1999	OLS with random effects, and 3 SLS	FDI is influenced by Human capital
Infrastructure, currency value, gross fixed capital	Positive	Vijayakumar et al. (2010)	1975–2007, BRICS (Brazil, Russia, India, China and South Africa	Panel analysis	FDI is determined by Infrastructure, GFCF, currency value
Market size, economic freedom	Positive	Pourshahabi et al. (2011)	OECD countries, 1997-2007	Panel data method	Market size, political stability and human capital
Labor cost, export growth, discount rate and country risk indexes	Positive	Bilgili et al. (2012)	Turkey 1988–2010	Markov regime-switching models (MSMs)	Export growth, labor cost, discount rate and country risk index
Institutions and political factors	Positive	Akdogan (2013)	11 OECD 1995–2008	Dynamic panel data model and GMM estimator	Political and institutional factors influences FDI attraction
Economic freedom, size of government	Positive	Ajide (2014)	Nigeria 1980–2010	A multivariate regression approach	Disaggregated components of economic freedom, size of Govt, openness

(Contd...)

Table 3: (Continued)

Factors	Effects on FDI-EG	Sources	Data span/region	Empirical approach	Remarks
Turn over indices and new investment incentives	Negative	Burcak and Payashoglu (2014)	Turkey 2007-2012	Used panel data	Taxes, country risk index, and coal price have –ve influence
FDI, Fin development, trade openness, Mkt size, natural resource	Positive	Phung (2016)	10 African countries and 45 countries. 1980-2014, 1990–2014	OLS fixed effects and Random effects	FDI is influenced by labour, macro-stability, infrastructure
Human capital, Mkt size, lagged FDI,	Positive	Sherif and Dailia (2016)	MENA Region 2006-2013	Panel data analysis and random effects	Human capital, infrastructure, mkt size are determinants
Market size	Positive	Reenu and Kumar (2017)	20 Developing countries (1990-2012)	Unbalanced panel data	Mkt size, Trade openness, HC
Gross fixed capital, efficiency variables		Neha and Monica (2018)	11 developed & 9 Developing countries	GMM dynamic model	Policy related variable influences FDI in developed; Efficiency variables influences in LDCs

FDI: Foreign direct investment, GFCF: Gross fixed capital formation, EG: Economic growth, LDCs: Less developed countries, RE: Random effects

In another investigation, Bengoa and Sanchez-Robles (2003) explored the connection between economic freedom, FDI and EG using panel estimation methodology on the sample of 18 Latin-America countries over the period 1970–1999. They used Fraser and Institute index of economic freedom. The results show that countries with higher index have more inflows of FDI and thus have greater growth rates. Pourshahabi et al. (2011) also investigated the relationship between FDI, economic freedom and growth in OECD countries during 1997–2007. Panel data Method is used to estimate two models. The first model was applied to investigate the factors that stimulate FDI and the second one was applied to find the growth factors in OECD members. The results of first model indicated that Human Capital, Market Size, Political Stability and Inflation have positive and significant impact on FDI in these set of countries. Following after (Bengoa and Sanchez-Robles, 2003) in the use of Fraser and Institute index of economic freedom, Ajide (2014) investigated the FDI - growth relationship over the period spanning 1980–2010 in Nigeria, applying a multivariate approach to estimate augmented growth models. The results show that the same set of variables like labour, life expectancy, degree of openness and economic freedom are factors affecting the level of EG. However, the estimates of disaggregated components of economic freedom data show that the size of government (negative effects) and freedom to trade internationally (positive effects) are significant.

In another type of analysis, Choi (2003) applied OLS weighed least squares and Tobit regression to investigate the use of internet as a determining factor of FDI in 53 countries during the period 1994–1996. The variables used include the population, the common language, trading distance, FDI stock, the characteristics of the host country, and the number of internet users. The finding shows that FDI is significantly attracted to the internet availability in a country. Finally, Neha and Monica (2018), employed a panel data using GMM static and dynamic modeling for 20 countries (11 developed and 9 developing) 2004–2013. The findings show that FDI is attracted to policy related determinants in developed countries - GDP growth,

trade openness, and freedom index; and in developing countries, what attracts FDI according to their findings is gross fixed capital formation, trade openness, and efficiency variables.

3. DISCUSSIONS

We have presented 55 empirical papers on FDI as shown in Tables 1-3. The papers are categorized into two uneven groups based on the publication dates. The first period (1980–2000) includes 11 empirical papers. It is observed that majority of the studies in this pack applied the OLS statistical method while a few used 2 SLS and 3 SLS. Again, most of the data in this period are panel and focused on interactions between FDI and EG with great number of the researches indicating positive results.

The second period (2001–2018) includes 25 empirical papers. Unlike the former where most of statistical method used OLS, in this package we have a fairly distribution of different types of statistical method that includes OLS, bound estimation, ARDL and GMM etc. Most of the studies are country specific, for example Indonesia, Nigeria, Malaysia, Ghana, South Africa, Singapore and some OECD countries. It is worthy to note that there are advantages of selecting case studies or country specific studies. One of its advantages is that its empirical sources are most probing and detail, is often richer. However, it also suffers from multiple defects - one of which is we cannot use the findings of country specific study to generalize. In other words research findings based on case studies are often referred as “anecdotal.” We are therefore not surprised that the literature on FDI as reviewed during this period, reported mixed result, ranging from weak to ambiguous and null.

From the findings on Table 3, we can deduce that FDI is driven by some fundamental factors such as, technology capacity, human capital level of threshold, labour cost, trade openness,

infrastructure, some policy related issues, and good institutions and economic freedom which depends on how inclusive is the administration.

4. CONCLUSIONS

As a way of conclusion, we can say that most of the studies on the interaction of FDI and EG included in this review prove that FDI exerts positive influence on the host country's economy. The positive result no doubt is a function of the absorptive capacity of the host country, the availability of quality of human and physical capital and importantly economic freedom of the host country. We have equally noted the variants of negative and null effects which are not many but they stand as a major reason for the review. It is what has informed the collection of papers to find the determinants of FDI. It is found that human capital, market size, financial development, economic freedom and political stability are some of the factors that influence the location and impact of FDI in the host country.

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