

Home Country Determinants of Foreign Direct Investment from India

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FDI has been one of the most preferred means of Internationalisation for firms in the developing economies. The significant emergence of MNEs from the developing economies has attracted academicians' interest across the globe. Inward FDI signals country's attractiveness to the foreign investors whereas outward FDI signals country's competence to venture beyond domestic boundary. OFDI from India has increased sharply since the beginning of the 2000s. An attempt is made of identify country-specific push factors encouraging Indian overseas investments for the period 1991-2014 using time series data. The study considers the eclectic paradigm of Dunning framework and four main FDI motivations.

JEL Codes: F21, F23

1. Introduction

In the recent years, foreign direct investment (FDI) has been one of the most preferred means of Internationalisation for firms in the developing economies. The significant emergence of Multinational Enterprises (MNEs) from the developing economies has attracted academicians' interest across the globe. The liberalisation reforms in 1991 facilitated the outward foreign direct investment (OFDI) by Indian multinationals which further gained momentum during early 2000s due to progressive liberalisation of economic and investment policies; accelerating the rate of Indian firms expanding their businesses overseas.

Inward FDI signals country's attractiveness to the foreign investors whereas outward FDI signals country's competence to venture beyond domestic boundary. Exports have been by and large the major means of internationalisation for Indian firms but over the last two decades overseas expansion and increasing outward investment by of Indian firm have been fairly perceptible. Indian firms have realised the importance of attaining global market share for future growth by establishing physical presence overseas either through cross border acquisitions and mergers or Greenfield investments compared to exports. Indian firm accounted for 1084 cross border purchases (net) and 13,389 green field investments in 2014 (UNCTAD, 2016). Prior to 1990s, the overseas direct investments (ODI) were driven by few family-owned large conglomerates like TATA and Birla's via establishing overseas subsidiaries and acquiring productive entities especially in the neighbouring developing countries.

Such 'south- south' investments were cooperative in nature corroborating the development of the host southern countries in mutually beneficial ways but post liberalisation overseas investments beyond neighbouring countries were considered as a tool to global

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competitiveness for the Indian firms (Pradhan, 2005). The world OFDI stock has increased from (USD) \$3,992,701 million in 2005-07 to \$25,044,916 million in 2015 (UNCTAD, 2016).

India has come a long way from a meagre \$495 million share in 1995 to \$138,967 million in 2015, reflecting the increasing competitiveness of the firms. The surge in export revenues from manufactured products and natural resources have also partially fuelled the overseas investments. FDI and international production activities of MNEs influence the economic growth, industrial structure and competitiveness of countries by transferring across nations financial and technological resources (UNCTAD, 1993; Aminullah et al., 2013). Globally nations aim to maximise the benefits of inward FDI by foreign MNEs and outward FDI activity by their own MNEs (Narula, 1994). Many Indian firms view OFDI as an important dimension of their corporate strategies.

Previous studies have largely qualitatively examined the drivers of OFDI based on Dunning's framework, while this paper, in contrast, empirically evaluates the push factors responsible for Indian overseas investment. This paper attempts to identify the significant push factor determinants of Indian OFDI for the period 1991-2014 using time series data. These macroeconomic factors also help in evaluating the significance of government policies supporting overseas investment. The study considers OLI model or the eclectic paradigm of Dunning framework (1977) and the four main motivations of FDI namely market-seeking, resource-seeking, and efficiency-seeking and strategic-asset seeking. The study partially considers the framework suggested by Banga (2005) to explain outward FDI from the developing economies. Rest of the paper is structured as follow: Section 2 comprises of the overview of Indian outward FDI. Section 3 presents the discussion on FDI theories and theoretical determinants of FDI. Section 4 presents the hypothesis on Indian OFDI. Section 5, presents model specification and interpretation of empirical results and section 6 conclude with practical policy implication.

2. Overview of Indian Outward FDI

Traditionally, Indian firms focused on organic growth as opposed to inorganic growth of venturing out for mergers and acquisitions. Nevertheless, long back in 1960s, few Indian conglomerates like Birla group and Shriram group ventured out to set up their plants in Ethiopia(textile plant) and Srilanka (sewing machine plant) respectively. Prior to the liberalisation in 1990s, the Indian policy makers were in favour of promoting south-south OFDI but post liberalisation the policy aimed to penetrate the international markets across continents and gain prominence as global market leaders through inorganic growth. The Globalisation and liberalisation reforms in 1991 gradually led to the openness of the Indian economy.

Indian OFDI path is broadly distinguished into three phases (Pradhan, 2005; Hansen, 2008). The 'early phase' include the period from mid- 1970s till the liberalisation in 1991, when few 'south-south' overseas investment were made in joint ventures by large conglomerates. The second 'start-up phase' from 1991 to early 2000s, witnessed higher ODI on account of liberal government stance on FDI whereas the third 'take-off phase' began in mid-2000s , accounted for exponential ODI growth (Hansen, 2008) . During 2000-2008, the gap between inwards and outward FDI narrowed with more than 30 times growth in OFDI compared to seven times growth in inward FDI (UNCTAD, 2010).

During the 1990s investment policy emphasised more on attracting FDI whereas Indian firms relied on export for venturing off-shores. Over the decade, the FDI policies have been constantly focusing on OFDI provisions and have facilitated competitive Indian firms to

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influence the world market by even acquiring overseas assets. India has witnessed substantial rise in the OFDI stock from 0.1 percent in 1995 to 6.6 percent of GDP in 2015 (UNCTAD, 2016). Manufacturing sector dominated the ‘early phase’ of overseas investments whereas the service sector dominated the ‘start-up phase’ possibly due to significant mergers and acquisitions (M&A). The recent data suggest that that the ‘take-off phase’ is dominated by both manufacturing and service sector (Table 1).

Table 1: India’s ODI: Sector wise 2003-04 to 2011-12 (US \$millions)

Sectors	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Manufacturing	935.5	1324.1	6062.6	3659.5	4691.4	9892	4969.4	4868.4	9720.4	48027
Financial, Insurance, Business Services & Real Estate	197.3	330.1	930.7	8467.6	9521.6	3513.9	3594.2	6410.7	6083.6	39736.4
Wholesale ,Retail Trade, Restaurants & Hotels	157.8	162.7	363.8	521.1	1076.3	1079.6	933.7	1812.7	3519.6	9755.9
Transport, Storage & Communication	215.5	12.4	192.8	112	1238.7	306.8	373.6	721.2	4470.9	7673.4
Agriculture, Forestry & Fishing	21.2	40	53.5	217.5	557.8	543.8	936.3	1185.7	2767.1	6399
Construction	1.2	35.5	36.9	101.1	695	341.4	361.4	371	3362.2	5312.4
Community, Social & Personal Services	31.8	64	123.1	88.2	193.2	386.4	177.6	697.1	461.1	2296.1
Electricity ,Gas & water	1	1.7	5.3	16.9	37.3	142.3	838.9	97	316.5	1458.9
Miscellaneous	2.8	0.7	26	52.8	435.6	121.6	118.8	239	161.6	1158.9
Total	1564.1	1971.2	7794.7	13236.7	18446.9	16327.8	12303.9	16402.8	30863	121818

Source: EXIM Bank Of India, Occasional Paper No. 165, May 2014.

Many Indian firms have engaged in overseas mergers, acquisitions and strategic alliances to gain competitive advantage in terms of technology, brand, goodwill or intellectual property rights. Indian knowledge based industries like- pharmaceuticals, information technology, telecommunications, software and automobiles witnessed upsurge in OFDI as they managed to position themselves in the new competitive market-setting by upgrading quality and improving productivity (EXIM 2014; Pradhan and Sauvart, 2010).

3. Theoretical Background

It is imperative to review the main FDI theories to formulate the theoretical framework for the analysis of India’s OFDI. Several studies have suggested the positive relationship between FDI and economic growth, especially in the developing countries where FDI has resulted in higher exports and access to international markets. Technology transferred via FDI contributes to productivity and economic growth in host countries (Balasubramanyam et al. 1996; Romer, 1994) through technology spillovers, human capital development, enhancement of competitive business environment and international trade integration (Kurtishi, 2013; Khachoo and Sharma, 2016). DI can establish a niche for domestic firms to export by providing the export distribution networks and information to enter foreign markets (Markusen and Venables, 1999).

Internalisation theory was conceptualised by Buckley and Cason (1976) based on the transaction cost initiated by Coarse in national context in 1937 and Hymer in an international context in 1976. Internalisation theory explains that MNEs overcome market imperfections restraining efficient trade and investments between nations by internalising foreign market through OFDI. Market failures could result from the legal restrictions, government interventions and asymmetric flow of information among others. Hymer (1976) identified that FDI is a firm-level strategic decision and takes place only when the firm-specific advantages outweigh the relative cost of the overseas operations. Buckley and Cason demonstrate that

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transnational enterprises internalise to develop and exploit specific advantages and overcome market imperfections or failures. Hence, the firms choose locations with particular specifications to fulfil their own business objectives, for instance favourable transfer pricing regulations for FDI stakeholders (Macelaru, 2013).

The Eclectic Paradigm, also known as OLI framework constructed by John H. Dunning in 1980 is the most popular FDI theory. It is based on developed country's perspective of exploiting monopolistic advantage that outweighs cost arising from overseas business operations. Buckley and Cason's Internalization theory was used by Dunning as one of the components of his eclectic paradigm or OLI framework. O-advantage suggests that firms with certain firm-specific advantages diversify in various countries to gain experience and knowledge about different business environments and further co-develop O- advantage by co-ordinating and collaborating with the world. It enables organizations to exploit their core competencies to expand internationally and compete with local firms in the host countries. O-advantage evolves from economic to managerial asset and static to dynamic capabilities (Moon, 2015).

Gorg and Greenaway (2004) proposed three types of firm specific O- advantages that assist MNEs in accessing foreign markets. Monopoly advantages arise through the ownership of limited natural resources, patents and trademarks. Technology and knowledge expertise arise through innovation, skilled human capital and research activities whereas economies of large size arise through economies of learning, economies of scale and scope etc. O-advantage is one of the most fundamental constitute of OLI paradigm that strengthens the case for firms overseas investment.

Pradhan (2004, 2008 and 2011) suggests that high labour productivity, research and development expenditure and managerial skills are the major factors that have motivated internationalisation of Indian firms, especially in the manufacturing sector. Balasubramanyam and Forsans (2014) also suggest that most sub groups in Indian manufacturing are more capital intensive than comparable industry groups in China accounting for O- advantage as proposed by OLI framework. Different kind of O- advantages allows firm to outperform their rivals in the host country.

Traditional Location-specific (L) advantages generally refers to assets such as natural resources, cheap and large labour pool and large market size which are subject to exhaustion over time. In the recent years, focus has been shifted from inherited tangible assets to created intangible assets that are bounded by clusters of firms (Porter, 1988; Moon, 2015). Hence in the recent times, MNEs also give considerable weight age to the immobile and created intangible assets to exploit their O-advantage while targeting location for ODI.

Internalisation (I) advantage refers to MNEs ability to transfer and exploit its O-advantage in the cross-border market. OLI paradigm suggest that the MNEs are more likely to engage in foreign production compared to joint venture, licensing or franchising operations provided they incur greater net benefits from cross border internalisation. Internalising benefits arise on account of reduced transaction cost and increased efficiency through intra-firm transactions (Dunning, 2000) In a nut-shell, Dunning proposed that MNEs aim to utilise their firm-specific advantages (O-advantage) in association with host country's location bound assets (L-advantage) through OFDI to benefit from the hierarchies as opposed to market mechanisms (I-advantage).

Dunning's OLI paradigm is an amalgamation of many theories in economics and business field but believing that no single theory can satisfactorily explain the reasons behind firms

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going global; Dunning specified four value-added activities to capture firms motivations of investing overseas. Market seeking, resource seeking and efficiency seeking motives are asset-exploiting in nature whereas Strategic asset-seeking motive is asset augmenting in nature.

Market-seeking FDI aims to protect the existing market or promote new market which was largely serviced by exports earlier and is now being replaced by ODI. The firms benefit by entering early in the foreign market and establishing monopolistic position (Lieberman and Montgomery, 1998). Resource-seeking FDI aims at gaining access to natural resources like mineral, ores, fuel etc with the motivation of minimising transportation cost and securing the supply of resources. Efficiency-seeking FDI promotes more efficient division of labour or specialisation of an existing portfolio of foreign and domestic asset to overcome inefficiencies. Such investments aim to rationalise the structure of established resource-based or market-seeking investments to gain from the governance of geographically dispersed activities. Strategic-asset seeking FDI aims at acquiring the assets of foreign companies to augment the firm's global portfolio of physical assets and human competencies either to sustain or strengthen their O-advantages. It reciprocates well with the firms long-term strategic objective of sustaining and promoting global competitiveness (Dunning and Lundan, 2008).

4. Hypothesis

The study aims to determine country specific push factors that influences Indian MNEs OFDI based on Dunning's OLI and motivation theory. These macroeconomic factors also help in evaluating the significance of government policies supporting overseas investment. The country-specific significant push factors included in the study are trade-related factor (Export), capability-related factor (education, patents, inward FDI) and domestic factors (Gross domestic product, corporate tax, natural resources).

Hypothesis 1: Indian OFDI is positively related to home country's Export level.

Several studies suggest that FDI contributes to the export performance of the country (Szkorupova, 2014; Grosse & Trevino, 1996). The studies by Conconia et al., 2015; Eaton et al., 2008; Padilla-Perez, et al., 2016) suggest that most firms serve foreign market via exports before investing there. OFDI followed by exports reduces uncertainties and risks associated with the investment hence are considered as an important driver of OFDI.

Hypothesis 2: Indian OFDI is positively related to home country's Education level.

For a country to attain O-advantage it is crucial to promote initial level of development (Blomstrom et al., 1992), education (Borensztein et al., 1998) and favourable trade policies (Balasubramanyam et al., 1999). The liberalisation measures of 1991 provided impetus to India's managerial and entrepreneurial talents which were nurtured in the pre-liberalisation era based on Nehruvian strategy (the first prime minister of independent India) of prompting engineering and managerial skills through highly subsidised Indian Institutes of Management (IIMs) and Indian Institute of Technology (IITs) (Balasubramanyam & Forhans, 2013). Over the years, number of IIMs and IITs have increased and substantially subsidized to promote human and technological skills known as O-advantage. Secondary enrolment ratio is used as a proxy for education level in India.

Hypothesis 3: Indian OFDI is positively related to the number of patents registered in the home country.

During the post-liberalisation era, Indian firms successfully adapted and restructured the imported technologies to further enhance their O-advantage. Patents, as a significant outcome of inward internationalisation of technology inputs has promoted overseas investments especially in pharmaceutical and software sector (Kathuria, 2010). Post liberalization Indian firms accelerated their in-house R&D activities along with external technology acquisitions, as Indian government encouraged domestic investment in pharmaceuticals (Pradhan and Alakshendra, 2006; Athreye and Godley, 2009) and automobile sector through dynamic industrial policy and liberal patent system. Pradhan and Singh (2008) analyzed that asset-seeking OFDI by the Indian automobile industry is associated with higher R&D activity by the Indian parent company. Stronger levels of patent enforcement have a significant positive effect on the economic growth of both developed and developing countries (Constantinos et al., 2016). Patent application by residents is used as a proxy for the intensity of patenting in the host country for technological advancement leading to O-advantage.

Hypothesis 4: Indian OFDI is positively related to the inward FDI.

FDI for long has been viewed an engine of growth provided the host country has required absorptive capacity to capture potential benefits from FDI (Aitken et al, 1997; Girma, 2003). Absorptive capacity is an ability to internalize technology created by foreign firms and “modifying it to fit their own specific applications, processes, and routines” (Narula and Marin, 2003). Inward FDI influences the capability of domestic firms to invest overseas through productivity spillovers (Bolstrom et al., 1999; Caves, 1996; Rugraff et al., 2011; Hansen, 2014) also known as indirect effects of multinationals on host countries in the form of relatively advance technology, know-how and skills. Indian technicians and managers are able to reap synergies from the wider pool of technology and knowhow resulting in overseas investments especially in human skill intensive sectors such as pharmaceutical, automobile and software (Balasubramanyam and Forhans, 2010).

Hypothesis 5: Indian OFDI is negatively related to the level of natural resources in the home country.

Several studies have examined the effect of relative abundance or scarcity of natural resources on the extent of inward and outward FDI (Swedenborg, 1979; Rugman, 1987). The lack of natural resources will push the outward investment by firms to acquire supplies of necessary inputs for its production process. India being a developing country is increasingly consuming energy and natural resources available within the country. However, with growing consumption and increasing population, there is need to import natural resources to sustain the production growth. This study uses net energy imports as a percentage of total energy usage as a proxy to the availability of natural resources within the country. Increasing imports signals depleting levels of natural resources in the nation and is assumed to correspond with the higher resource-seeking overseas investment.

Hypothesis 6: Indian OFDI is positively related to the home country's tax regulations influencing cost of investment.

Domestic tax regulations can influence the cost of investment across economies. Tax on income, profits and capital gains as a percentage of revenue is used as a proxy for taxes on profit in this study. Higher tax implications motivate firms to look for foreign destinations that provide tax-benefits. According to the EXIM report (2014), 4 percent of the total global FDI

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flows are re-directed through tax-haven countries like Singapore, Mauritius and Netherlands among others.

Hypothesis 7: Indian OFDI is positively related to the home country's GDP level.

The home country's macroeconomic factor such as GDP is an important variable to determine OFDI. According to Kalotay and Sulstarova (2010) GDP level represents O-advantage for the nation which may arise from the economies of large size through economies of learning, economies of scale and scope etc promoting country's overseas investments. GDP at market price (constant 2010 US\$) is used as a proxy for market size and is expected to have positive relationship with OFDI.

5. Model Specification and Results

The empirical model comprises of variables based on theories and previous researches. India is one of the major contributors to the world FDI stock from the Asian region. The time period for analysis is 1991-2014, as liberation reforms were initiated in 1991. The data has been sourced from World Bank.

The determinants of Indian OFDI is broadly categorised into three set:

1. Trade –related factors
 - a. Export

2. Capability-related factors
 - a. Education
 - b. Patents
 - c. FDI

3. Domestic factors
 - a. Energy (natural resources)
 - b. Taxes on income, profits and capital gains
 - c. GDP

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Table: 2 Summary of variables

Variable	Abbreviation	Description	Theoretical Justification	Expected Sign	Source
OFDI	OFDI	Log of FDI outflow (US millions)	Dependent variable		World Bank Data
EXPORT	EXPORT	Log of Exports of goods and services (% of GDP)	(access to international market) L-advantage	+	World Bank Data
EDUCATION	EDU	Log of Gross enrolment ratio, secondary, both sexes (%)	(Highly skilled & knowledge intensive workforce) O-advantage	+	World Bank Data
PATENTS	PATENTS	Log of Patent applications, residents	Technological expertise(O-advantage)	+	World Bank Data
FDI	FDI	Log of FDI inflow (US millions)	(absorption and spillover effects) O-advantage	+	World Bank Data
ENERGY	RESOURCES	Log of net energy imports (% of energy use)	(look for natural resources in the location/Resources seeking investment)) L-advantage	-	World Bank Data
TAX ON INCOME	TAX	Log of Taxes on income, profits and capital gains (% of revenue)	(Invest in countries providing tax benefits) L-advantage	+	World Bank Data
GDP	GDP	Log of GDP at market prices (constant 2010 US\$)	(advantage of economies of large size) O-advantage	+	World Bank Data

The study applies ordinary least square (OLS) regression method to analyse the impact of key 'push factors' on Indian OFDI. After thorough analysis of the different combination of the variables, the present study includes the following OLS framework. The models have been tested for auto-correlation and heteroscedasticity. The factors are lagged by one year to overcome the problem of simultaneity between the explanatory variables and the dependent variable (Log OFDI).

$$OFDI_t = \alpha_t + \beta_1 Exports_t + \beta_2 Edu_t + \beta_3 Patents_t + \beta_4 FDI_t + \beta_5 Resources_t + \beta_6 Tax_t + \beta_7 GDP_t + \epsilon_t$$

Table: 3 Empirical Results

Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Exports	0.386482** (2.1262)				
Edu		12.08186*** (0.234)			
Pa				11.77136*** (2.452778)	
IFDI					2.38625*** (5.10649)
Resources	5.408623* (1.8434)	3.0570* (2.66065)	5.731369** (2.4893)	2.037523* (1.80085)	3.198873* (0.890157)
Tax			-4.42227* (3.5311)		
GDP	7.242437 *** (4.1650)	6.5620*** (7.3180)	7.00549*** (3.5311)	7.1922552*** (4.83912)	14.84319 (0.42976)
R ²	0.777434	0.814065	0.783072	0.85185	0.792772
Adjusted R ²	0.707882	0.783076	0.715282	0.805553	0.728013
F-statistics	11.17773	26.26938	11.55144	18.39966	12.24193
DW	2.000193	1.896165	1.996817	1.93713	1.848546

- Notes:
1. Figures in parenthesis are t-statistics
 2. Results are corrected for autocorrelation and heteroscedasticity.
 3. ***, ** and * denotes significance at 1%, 5% and 10% respectively.

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The estimates are presented in Table 3, using variables that are not highly correlated. The empirical results suggest that exports as a percent of GDP is a significant driver of OFDI at 5 percent significance level. As proposed, export can positively influence OFDI as most firms serve overseas market via exports before investing there. It facilitates access to international market through L-advantage factor.

The education level of the country (secondary enrolment ratio) is also a significant driver of overseas investments. The impact of education level is robust at 1 percent significance level. Majority of Indian OFDI is from manufacturing and service sector, being skill and knowledge intensive requires higher levels of education and the result too corroborate the hypothesis. Highly skilled and knowledge intensive workforce leads to O-advantage for the firms seeking overseas investment.

Technological expertise is considered as O-advantage for firms and the results confirm that patents significantly drive overseas investments at 1 percent significance level. They significantly impact the outward investment especially in the case of asset-seeking Indian investments from pharmaceutical, software and automotive sector to the developed countries. The parent companies in emerging markets need sufficient absorptive capacity to make use of superior technology for asset-seeking FDI to play a prominent role.

The net import of energy as a percentage to total energy usage is used as a proxy for natural resources available in the country. Increasing imports signals depleting natural reserves and makes a possible case for resource-seeking OFDI. Results are found to be significant at 10 percent level across different models. L-advantage corresponds well with the investments targeting access to natural resources in the host country.

Inward FDI is found to be highly significant at 1 percent level supporting the argument that FDI brings with it latest technical know-how, skills and information. Productivity spill-over's from FDI significantly enhances local firms' capability to undertake overseas investments. The taxes on income, profits and capital gains as a percentage of revenue is used as a proxy for corporate tax levied on corporate and firms. The results indicate negative impact of tax on OFDI which is found to be significant at 10 percent level. The impact of GDP is highly significant at 1 percent level across most of the models, indicating O-advantage of the large size economies and a high correlation between the size of the domestic market and overseas investment.

6. Conclusion and Policy Implication

OFDI from developing countries is relatively a new phenomenon. The aim of the study is to identify the push factors that drive Indian overseas investment during the period 1991-2014. The OLS regression model was applied on annual data sourced from World Bank. The results confirm that there is a significant impact of 'push factors' on Indian overseas investments. The positive correlation, as was expected, is observed between Indian OFDI and following push factors: home country GDP, education level, patents, export level and inward FDI. Negative correlation was found between OFDI and availability of natural resources in the home country, as hypothesized. The finding that surprised the author was negative correlation between OFDI and taxes, which is also contradictory to the earlier studies. As was hypothesized, higher tax implications promote more overseas investment by firms but the empirical results indicate that higher tax implications are dampening firms' ability to invest overseas perhaps by reducing their profitability after tax. It indicates that the higher tax rate is not contributing to the increase in Indian overseas investment but the differences in

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corporate taxation standards are increasingly channelizing the existing ODI through tax-haven countries. This study raises concern for the government regarding high domestic corporate tax norms which is going against their policy objective of encouraging overseas investments.

A FDI policy aims to promote international competitiveness of firms. Removal of trade barriers and capital controls help achieve the objectives of outward FDI: most developed economies have lifted capital controls; but many developing economies are yet to do so for various reasons. Many countries like Singapore, Malaysia, China and Thailand are offering incentives for outward FDI. Education is fundamental to India's economic growth and social transformation. Secondary education prepares workforce for semi-skilled jobs whereas tertiary or higher education contributes to skilled workforce leading to higher-order knowledge creation for future. Skill India initiative aims at improving employability of Indian youth that comprise of more than 50 per cent of India's population. Government has already set up many more IITs and IIMs but it is imperative to bring them at par with the international standards and provide world-class research and development infrastructure. Taiwan, a very small Asian country, has excelled its expertise in semi-conductors and electronics by extensively training local talent and setting up science parks to provide world-class infrastructure. Semi-conductors and electronics accounted for \$116-billion worth of exports compared to \$108 billion worth of information technology and business process management exports from India (Economic Times, 2017)¹. Taiwan spends 3 percent of its GDP on research compared to 0.5 percent in the early 1980s. India currently spends only 0.8 percent of its GDP on research which needs to be increased to at-least 2 percent. Though India has been working in this direction ever since independence but now in order to compete globally India needs to allocate more funds for education and research and development. Government has also taken appropriate measures to attract inward FDI. Globally, India ranks 10th among countries attracting highest FDI inflows and sixth most preferred investment destination in 2015 (UNCTAD, 2016). India needs to enhance the absorptive power to efficiently reap synergies from the wider pool of technology and knowhow and ease the global rise of Indian MNEs. Government should also aim at reducing high corporate tax as high rates encourage MNEs to retain their foreign earnings abroad instead of investing it into expansion and employment in the home country. At the same time, as the empirical results suggest it discourages overseas investment especially from small and relatively young firms by adversely impacting their profits earning after tax. Unlike earlier studies that suggested high corporate tax as a reason for round-tripping through tax-haven countries, the present study argues that this is also the main reason for slow pace of Indian overseas investments especially by the young upcoming firms compared to age-old family businesses.

To conclude therefore, the opportunities for promoters to undertake overseas investments from developing economies, largely depends on the extent of governments support and the enabling business environments and the results confirm that there is a significant impact of 'push factors' on Indian overseas investments. Due to the limited data availability, few other macroeconomic indicators suggested by the previous studies could not be used, however based on this research, the author believes that there is a future scope to examine public policies and other incentives that enable outward FDI and propose suitable future policy implications. The results of this paper are specifically related to India and cannot be generalized to other countries.

Endnotes

1. <http://economictimes.indiatimes.com/small-biz/security-tech/technology/india-needs-to-budget-for-research-funding/articleshow/56904031.cms>

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