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INDIA’S OUTWARD FOREIGN DIRECT INVESTMENT: GROWTH DRIVERS

Abstract:
Robust inward and outward flow of direct investments signals ever-increasing integration of an economy with the global world. The emergence of outward foreign direct investment from the developing countries has gathered significant interest from research scholars. Overseas investments encourage economic co-operation between home and the host countries. Over the past two decades India has been in the limelight for its ever rising overseas investments and integration with global world. The study aims to identify country-specific macroeconomic growth drivers that encouraged Indian overseas investments since 1991 till 2015 using Dunning’s OLI framework. The results substantiate significant impact of country-specific growth drivers on Indian overseas investments.

Keywords:
Overseas investment, foreign direct investment (FDI), India, Growth, Drivers

JEL Classification: F40, F23
1. Introduction

Robust inward and outward flow of direct investments signals ever-increasing integration of an economy with the global world. Inward foreign direct investment on one hand, indicate nation’s attractiveness for foreign investors whereas outward foreign direct investment displays nation’s enthusiasm and competence to venture beyond the domestic shores. India, a developing country has attracted global attention in both the cases, it not only ranks among the top countries attracting foreign direct investment (FDI) but has also gained global presence through its overseas investments.

Over the last two decades India has transformed from an agricultural economy to one of the largest and fastest growing economies in the world. Liberalization of FDI regime since 1991 has played a momentous role in transforming Indian economy and strengthening its position in the international arena, particularly the inward FDI. The Indian outward foreign direct investment (OFDI) policy reforms since the early 20s, significantly resulted in momentous overseas investments, mergers and acquisitions (Buckley, Forsans and Munjal, 2009). Several Indian firms like software giant- Infosys, TCS and Wipro; pharmaceutical and biotechnology powerhouses- Ranbaxy, Biocon, and Dr. Reddy's Labs are effectively competing in the international arena with the best MNCs from Europe, the United States, and European Union etc.

Foreign direct investment has been one of the most preferred means of Internationalisation for firms in the developing economies. Over the years, export had been the most dominant choice of internationalisation for Indian firms, however, 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 through cross border mergers & acquisitions (M&A) and green field investments compared to exports. Indian firm accounted for net 8581 cross border M&A purchases. The value of announced Indian Greenfield FDI projects ranges from $8630.75 million in 2003 to $18 221 million in 2016 (UNCTAD, 2017).

The world OFDI stock has increased from $7409629.9 million in 2000 to $30837927 million in 2017 (UNCTAD, 2018). India has come a long way from a meagre $495 million share in 1995 to $ 1 733 million in 2000 to 155341.2 million in 2017, reflecting the increasing competitiveness of the firms. The surge in export revenues from manufactured products and natural resources are also partly stimulated by the overseas investments.

This paper attempts to identify the significant growth drivers of Indian overseas investment for the period 1991-2015 using time series data. The study also assist in drawing inferences about government policies supporting overseas investment or otherwise. Dunning’s OLI framework (1977) and the four main motivations of FDI
namely market-seeking, resource-seeking, and efficiency-seeking and strategic-asset seeking besides Banga’s (2005) OFDI framework, which is partially considered, forms the basis of this study to explicate OFDI from the developing economies. Rest of the paper is structured as follow: Section 2 comprises of the synopsis of Indian overseas investment. Section 3 presents the theoretical background of FDI theories. Section 4 presents the hypothesis on Indian overseas investment. Section 5 presents model specification and interpretation of empirical results and section 6 conclude with practical policy implication.

2. Synopsis of Indian Overseas Investment

FDI both inward and outward is the reflection of countries’ growing competence. India is among the world top 10 recipients of FDI inflow and fourth in the developing Asia. Being the fastest growing economy in the world it offers huge potential for foreign investors, accounting for $39,916.08 million of FDI inflow in 2017 compared to $75 million in 1991 (UNCTAD, 2018). In the current context, the surge in outward FDI from India in terms of magnitude and cross-border acquisition deals have brought it to the limelight especially among developing nations. The globalization and liberalisation of trade and investment policies have gradually led to the openness of the Indian economy. During the 1990s, India being at the developmental phase was more reliant on export for venturing off-shores and the investment policy then too focused on attracting inward FDI. Today the Indian firms are competitive enough to influence the world market by even acquiring overseas assets (Gammeltoft, Filatotchev, & Hobdari, 2012; Sun et al., 2012).

As opposed to inorganic growth, Indian firms for years together concentrated on organic growth, nevertheless, in early 1960s few Indian corporations like Birla and Shriram ventured overseas. Birla group established textile plant in Ethiopia whereas Shriram group concentrated on sewing machine plant. Prior to the liberalisation in 1990s, policy makers favoured south-south OFDI however; post liberalisation the policy intended to break through the international markets across continents with more emphasis on inorganic growth. The Globalisation and liberalisation reforms in 1991 progressively led to the openness of the Indian economy.

Indian OFDI path is largely distinguished into three phases (Pradhan, 2005; Hansen, 2008). The period during mid-1970s till the liberalisation in 1991 is termed as ‘early phase’ which represents few ‘south-south’ OFDI through joint ventures by big corporations. The period during 1991 to early 20s is termed as the ‘start-up phase’. It accounts for significant overseas investment owing to liberal government stance on OFDI. The third ‘take-off phase’ started in mid 20s resulting in exponential OFDI growth (Hansen, 2008). During 2000-2008, Indian OFDI growth surpassed Inward FDI by more than 30 times (UNCTAD, 2010).

During the 1990s, investment policy favoured inward FDI whereas Indian firms preferred more exports business. However, in the recent past, FDI policies have been
constantly focusing on overseas investment provisions facilitating overseas acquisitions by the Indian firms. India recorded sizeable increase in the OFDI stock from 0.1 percent in 1995 to 6.7 percent of GDP in 2016 (UNCTAD, 2017). The ‘early phase’ of overseas investments was dominated by manufacturing sector whereas the ‘start-up phase’ was driven by service sector due to substantial overseas mergers and acquisitions (M&A). The ‘take-off phase’ is equally dominated by both manufacturing and service sector.

Several 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, on account of advance quality and superior productivity positioned themselves in the new competitive global market-setting (EXIM 2014; Pradhan and Sauvant, 2010).

3. Theoretical Background

It is important to review the significant theories of FDI to formulate theoretical framework for the analysis of Indian overseas investment. Several studies suggest a positive relation between FDI and economic growth, especially in the developing countries where FDI has resulted in higher exports and access to overseas markets. Technology transmitted through FDI facilitates productivity and economic growth in host countries (Balasubramanyam et al. 1996; Romer, 1994) through human capital development, technology spill-overs, augmentation of competitive business environment and international trade integration (Kurtishi, 2013; Khachoo & Sharma, 2016). FDI supports domestic firms to expand export business through export distribution networks and information to enter foreign markets (Markusen & Venables, 1999).

Internalisation theory by Buckley and Cason (1976) is based on the transaction cost hypothesis prompted by Coase in 1937 and Hymer 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 exhibit that internalisation of transnational enterprises is a result of their efforts to develop and exploit specific advantages and overcome market imperfections or failures. Therefore, the firms prefer locations with certain specifications to realize 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 (Hwi-ch’ang & Moon, 2015).

Monopoly advantages, technology and knowledge expertise and economies of large size are the three types of firm specific O-advantages that assist MNEs in accessing foreign markets (Gorg and Greenaway, 2004). 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.

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 (Pradhan, 2008, 2011). Balasubramanyam and Forsans (2013) 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 commonly 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 (Hwi-ch’ang & 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 eclectic framework is a combination of various economic and business theories as no single theory can suitably explicate the reasons behind firms 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 shield the existing market or promote new market which was mainly serviced by exports earlier and is now being replaced by overseas investment. The firms benefit by entering early in the foreign market and establishing monopolistic position (Lieberman and Montgomery, 1998). Resource-seeking FDI intend to gain access to natural resources like mineral, ores, fuel etc with the motivation of minimise transportation cost and secure supply of resources. Efficiency-seeking FDI supports 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 seeks to acquire assets of foreign companies to enhance firm’s global portfolio of physical assets and human competencies either to sustain or strengthen their O-advantages. It responds well with the firms long-term strategic objective of sustaining and promoting global competitiveness (Dunning & Lundan, 2008).

4. Hypothesis

The study aims to identify country specific factors that influences Indian overseas investment based on Dunning’s eclectic paradigm and motivation theory. These macroeconomic factors also assist in drawing inferences about government policies supporting overseas investment or otherwise. The country-specific significant macro-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.

OFDI and its relationship with home country exports is a significant aspect of internationalization having implications for both policymakers and multinational enterprises (Szkorupova, 2014; Bhasin et.al, 2016). The studies by Conconi et al., 2016; Padilla-Perez, et al., 2016) advocate that most firms serve foreign market via exports before investing there. OFDI followed by exports lessen uncertainties and
risks associated with the investment therefore considered as an important driver of OFDI. The research findings of Conconi et al., (2016) suggest that majority of firms serve a foreign market via exports before establishing affiliates in that market, thus export entry almost always precedes FDI entry.

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

For a country to attain O Advantage it is essential to promote initial level of development (Blomstrom et al., 1992) and education (Borensztein et al., 1998; Andreff, 2014). 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 & 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 is generally treated as flow of capital, technology and know-how from one nation to another, which in turn leads to economic growth in a recipient economy. Government device policies to attract more inward FDI by minimising or eliminating FDI restrictions, enhancing domestic economic policies, promoting financial sector reforms (Sothan, 2017) or in a nutshell we can say, providing ease of doing business. Though FDI for long has been viewed an engine of growth but the potential benefits from FDI can only be captured through strengthened absorptive capacity of the nation.
Nunnemkamp (2004) believes that nations should achieve a minimum level of economic development before exploiting the benefits from FDI and in absence of it, they should not expect too much from FDI.

Absorption in the context of FDI relates to the assimilation of FDI in the host economy. Kalotay (2000) defines absorptive capacity of a host nation as its ability to assimilate or integrate FDI into the economy in a meaningful manner. 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 & Marin, 2003). Inward FDI influence the capability of domestic firms to invest overseas through productivity spillovers (Bolstrom et al., 1999; 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 (Narula, 1994; Asghari et.al., 2014). The lack of natural resources will motivate firms’ outward investment 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 naturals 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 flows are re-directed through tax-haven countries like Singapore, Mauritius and Netherlands among others.

Hypothesis 6: 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.

Gao (2008) suggests that GDP is a significant determinant of OFDI by mere common sense. His study also empirically proves that it as an important determinant for Chinese 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 $) 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 1991-2015, 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

Table: 1 Summary of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Abbreviation</th>
<th>Description</th>
<th>Theoretical Justification</th>
<th>Expected Sign</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFDI</td>
<td>OFDI</td>
<td>Log of FDI outflow (US millions)</td>
<td>Dependent variable</td>
<td></td>
<td>World Bank Data</td>
</tr>
<tr>
<td>EXPORT</td>
<td>EXPORT</td>
<td>Log of Exports of goods and services (% of GDP)</td>
<td>(access to international market) L-advantage</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>EDU</td>
<td>Log of Gross enrolment ratio, secondary, both sexes (%)</td>
<td>(Highly skilled &amp; knowledge intensive workforce) O-advantage</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>PATENTS</td>
<td>PATENTS</td>
<td>Log of Patent applications, residents</td>
<td>Technological expertise(O-advantage)</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>FDI</td>
<td>FDI</td>
<td>Log of FDI inflow (US millions)</td>
<td>(absorption and spill over effects) O-advantage</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>ENERGY</td>
<td>RESOURCES</td>
<td>Log of net energy imports (% of energy use)</td>
<td>(look for natural resources in the location/Resources seeking investment) L-advantage</td>
<td>-</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>TAX ON INCOME</td>
<td>TAX</td>
<td>Log of Taxes on income, profits and capital gains (% of revenue)</td>
<td>(Invest in countries providing tax benefits) L-advantage</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
<tr>
<td>GDP</td>
<td>GDP</td>
<td>Log of GDP at market prices (constant 2010 US$)</td>
<td>(advantage of economies of large size) O-advantage</td>
<td>+</td>
<td>World Bank Data</td>
</tr>
</tbody>
</table>
The study considers ordinary least square (OLS) regression method to investigate the impact of selected factors in driving Indian OFDI. After methodical analysis of the different combination of the variables, the study includes the following OLS framework. The models have been tested for autocorrelation 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).

$$\text{OFDI}_t = \alpha_t + \beta_1 \text{Exports}_t + \beta_2 \text{Edu}_t + \beta_3 \text{Patents}_t + \beta_4 \text{FDI}_t + \beta_5 \text{Resources}_t + \beta_6 \text{Tax}_t + \beta_7 \text{GDP}_t + \epsilon_t$$

Table: 2 Empirical Results

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports</td>
<td>0.406541**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.3211)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edu</td>
<td></td>
<td>11.08186***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.213)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pa</td>
<td></td>
<td></td>
<td>11.3431***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2.37453)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td></td>
<td></td>
<td></td>
<td>2.22987***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5.2193)</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>5.519243*</td>
<td>2.9034*</td>
<td>5.62631***</td>
<td>2.037523*</td>
<td>3.88862*</td>
</tr>
<tr>
<td></td>
<td>(1.7424)</td>
<td>(2.57603)</td>
<td>(2.69295)</td>
<td>(1.80985)</td>
<td>(0.90017)</td>
</tr>
<tr>
<td>Tax</td>
<td></td>
<td></td>
<td>-4.3577*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3.4531)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>7.4317***</td>
<td>6.6511***</td>
<td>6.80832***</td>
<td>7.26221***</td>
<td>15.1329</td>
</tr>
<tr>
<td></td>
<td>(4.027)</td>
<td>(7.2210)</td>
<td>(3.4921)</td>
<td>(4.7903)</td>
<td>(0.44211)</td>
</tr>
<tr>
<td>R²</td>
<td>0.7637</td>
<td>0.834021</td>
<td>0.79224</td>
<td>0.84164</td>
<td>0.78751</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.69784</td>
<td>0.783076</td>
<td>0.695181</td>
<td>0.79245</td>
<td>0.72915</td>
</tr>
<tr>
<td>DW</td>
<td>2.00123</td>
<td>1.88978</td>
<td>1.952917</td>
<td>1.94361</td>
<td>1.86382</td>
</tr>
</tbody>
</table>

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.

The estimates are presented in Table 2, 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 & 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

The results corroborate that the country-specific macroeconomic factors significantly impact Indian overseas investments. The positive correlation, as was expected, is observed between Indian OFDI and following factors: home country GDP, education level, patents, export level and inward FDI. OFDI is the result of increasing GDP which in turn could be the result of technology enhancement. Indian economy is consistently growing at 7-8 percent annually. There has been a significant year-on –year rise in the middle income group contributing significantly to the growth rate. It can be also inferred that export is a prerequisite for Indian firms to carry out overseas FDI operations. Exports from India has also witnessed substantial rise over the past few years. Education level relates to the skill advancement or absorption which leads to ownership advantage. 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. However, education being fundamental to India’s economic growth and social transformation is being given considerable weight age by the current Indian government. Skill India initiative intends to improve employability of Indian youth; the country with more than 50 per cent of youth population below 35 years of age. Secondary education provides semi-skilled workers whereas tertiary or higher education supplies skilled contributing to higher-order knowledge creation for future.
Government is also increasing the number of IITs and IIMs the premier higher education institutions in India.

Patents relate to more expenditure on R&D activities, which again translates into ownership advantage but OFDI could also result from technology seeking motive of the firms. Inward FDI leading to productivity spill-over significantly enhances local firms’ capability to undertake overseas investments. Indian government has opened up majority of their sectors for 100 percent FDI. We have gained dominance in automobile manufacturing by opening this sector for foreign investors’ long back. Now the onus has been shifted to defence sector, we are inviting Original Equipment Manufacturers (OEMs) across the globe to invest in India and boost manufacturing. India aims to boost its domestic manufacturing through FDI and technology spill over. Negative correlation was found between OFDI and availability of natural resources in the home country, as hypothesized. Indian energy sector is actively looking for foreign overseas investment opportunities. To highlight a few, ONGC Videsh and Indian Oil has recently acquired 11 percent and 23.9 percent stake respectively in Russian oil company JSC Vankorneft from Rosneft Oil Co. for US$ 930 million. Indian Oil has built a sizeable portfolio of oil & gas assets, with participating interest in nine domestic and 10 overseas blocks. The overseas blocks are located in USA, Canada, Venezuela, Libya, Gabon, Iran, UAE, Nigeria and Russia. In February 2018, an Indian consortium comprising Indian Oil, ONGC Videsh and BPRL acquired a 10 percent stake in ADNOC's Lower Zakum Concession, Offshore Abu Dhabi (IBEF, 2018).

The negative correlation between OFDI and taxes was intriguing. As was hypothesized, higher tax implications promote more overseas investment by firms but the empirical results point out that higher tax implications are diminishing firms’ ability to invest overseas possibly 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 corporate taxation standards are increasingly channelizing the existing ODI though tax-haven countries. Indian Government should also plan to reduce high corporate tax as high rates persuade 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. The government has recently reduced corporate tax from 30 percent to 25 percent for firms with revenue of Rs 2.5 billion and below. The opportunities for promoters to undertake overseas investments from developing economies, largely depends on the extent of governments support and the enabling business environments.

Based on this research, we believe that there is future scope to examine public policies and other incentives that enable outward FDI and propose suitable future policy implications.
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