

# **The Influence of Host-Source Country Linkages in Explaining Foreign Acquisitions by Indian Firms**

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## **Abstract**

The approach to internationalisation dominated by the Eclectic Paradigm has constantly faced challenges in gaining acceptance as a holistic framework in explaining outward foreign direct investment (OFDI). In 2006 John Dunning acknowledged that the role of networks and linkages is not explicitly covered or is beyond the boundaries of the Eclectic Paradigm (Dunning, 2006). In this paper we explore the view that the role of linkages should be included in the Eclectic Paradigm to add to its richness and improve its explanatory power. This paper examines the complementarity of country-specific linkages with country-specific advantages in explaining the foreign acquisitions by Indian MNEs by testing and extending further the Eclectic Paradigm. Linkage variables are shown to be an adjunct to the electric paradigm, not an alternative to it.

**Keywords:** Multinational Enterprises (MNEs); Emerging-country Multinationals (EMNEs); India; Foreign Direct Investment (FDI) Determinants; Mergers & Acquisitions (M&As); Eclectic Paradigm; Linkages; Country Specific Advantages (CSAs).

## 1. Introduction

This paper extends and tests the Eclectic Paradigm of international expansion by multinational enterprises (MNEs) (Dunning, 1977, 1980, and 1985). It concentrates on country specific factors and extends these explanatory elements by including host-source country linkages. To do this, it examines the foreign acquisition behaviour of Indian MNEs.

Rugman (1981, 1985, and 2005) divides the ownership, location, internalisation (OLI) configuration of the Eclectic Paradigm into firm-specific advantages (FSAs) and country specific advantages (CSAs). Our paper tests the explanatory power of CSAs in the Indian case and goes on to examine the extra degrees of explanatory power given by linkage variables.

The Eclectic Paradigm does not explicitly include networks and linkages. However, in a globalising world, networking and linkages are becoming critical for multinational firms (MNEs). Dunning (2006, p.140) acknowledged that globalisation “*is opening up a whole new set of opportunities for all types and sizes of firms, (...) cross border linkages (...) can be an important raison d’etre for outbound MNE related activity*”. Using network and linkage strategies emerging multinationals are integrating into global value chains (Mathews, 2006) and emerging economies are “flexing their muscles” at international forums such as the G20 (Mathews, 2009, p. 7). Thus, linkages and networks not only benefit firms, but also countries, as country level strategic partnerships can enable countries to benefit from mutual cooperation.

This paper tests the role of home-host country linkages along with both home and host location advantages in explaining the pattern of India’s mergers and acquisitions (M&As) abroad over the period 2000 to 2007. India is particularly a good case to conduct this test for a number of reasons. First, Indian MNEs possess unique CSAs stemming from a number of home country characteristics and at the same time India has both south-south and north-south linkages (country

specific linkages or CSLs) through her membership of international fora. Second, from a theoretical perspective, the Eclectic Paradigm has been challenged on its applicability to developing countries of which India is a leading exemplar (Matthews, 2006). Third, over the past decade India has become a trillion dollar economy and the second fastest growing economy in the world (Goldman Sachs, 2008). India's stocks of FDI, both inward and outward, are rising considerably. Despite her growing economic significance, India has remained under-researched as a result of the paucity of data<sup>1</sup>. Using a panel dataset on foreign acquisitions this study attempts to fill an empirical gap by improving our understanding of the drivers of OFDI from India and a theoretical gap by improving the specification of commonly-used models of the determinants of outward FDI.

The reminder of this paper is organised as follows. In the next section we briefly review the literature on country-specific advantages, linkages between home- host countries, and host country location advantages. Then the following section presents the methodological framework and finally the empirical results are discussed.

## **2. Theory and Hypotheses**

In this section we review the literature and formulate hypotheses on home country specific advantages, host country specific location variables and home-host country linkages.

### **2.1 Home country-specific ownership advantages (CSAs)**

There is a long tradition dating back to Ricardo (1973) of differentiating the world into nation states and examining the global economy by reference to interaction between sovereign nations.

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<sup>1</sup> Official data on Indian OFDI is seldom available and is of very poor quality. Some authors such as Pradhan and Kumar have compiled data from unpublished sources, newspapers, business magazines, but the quality of data is always a consideration.

Theories of the competitive advantage of nations (Porter, 1990) imply that firms in specific countries can benefit from unique locational advantages. A country's institutions and its macro-economic environment (Kojima, 1973, 1975, 1978) may become sources of competitive advantages if firms can internalise these features and transform them into mobile assets (Buckley and Casson, 1976; Cason, 1979; Dunning, 1977, 1985; Rugman, 1981, 1985). This is the theoretical framework that we test and extend.

The transformation of home country specific advantages into firm-specific advantages (FSAs) is an underexplored area in international business theory. However, source country effects are often strong in explaining outward FDI (see for example Buckley, Clegg, Cross, Liu, Voss, and Zheng, 2007). Firms domiciled in particular locations have access to home country attributes that are closed to outsiders. This applies both (strongly) to firms that are not present at all in the country and (less strongly) to foreign firms located there. The barriers to outsiders gaining access to CSAs are obvious insofar as they depend (by definition) on presence in the country conferring the CSA. Barriers to foreign firms present in the country include legal issues, local firm preference (by government but possibly also by consumers and civil society), cultural barriers and strong internal networks (clans, families, political parties) designed to excluded non-locally owned firms.

Country-specific variables that might give firms domiciled in that location particular advantages in international competition include the domestic capital market (which may make capital available to local firms at a low cost), the foreign exchange rate (a strong exchange rate makes foreign assets cheaper) and the English language (reducing transaction costs in English speaking host countries).

### 2.1.1 Domestic capital market

The home stock market can be an important source of finance. Stock market valuations were found to have significant explanatory power for U.S. investments abroad (Barrow, 1990) as MNEs make extensive use of their internal capital market to finance FDI projects (Herzer, 2008). Baker, Foley, and Wurgler (2009) found that FDI flows are strongly related to the source country's stock market valuation, as high stock valuations at home make financing cheaper by reducing the cost of capital. The association between stock market valuations and FDI is a strong one. As Baker puts it, *"the effect of source country valuations is stronger, in statistical terms, than any other determinant of FDI that we study, and to our knowledge may be the strongest effect on FDI yet documented in the literature. This relationship is consistent with the cheap finance story"*. (2008: 22)

India's capital market remained buoyant especially during the period 2003 to 2007 with significant inflows of global portfolio investments (see figure 1). A high capital market index indicates high stock prices and a low cost of capital. Thus, rising stock prices in the domestic capital market may have enabled firms to raise equity from both primary and secondary markets cheaply. Interestingly, Indian firms have raised record-high amounts of capital during the period under study (Figure 1) which also coincides with increasing levels of cross-border acquisitions by Indian MNEs.

\*\*\*\*Insert Figure 1 about here\*\*\*\*

Thus, it is likely that the rising home capital market index has been Indian firms to finance overseas acquisitions. Therefore, we hypothesise:

**Hypothesis 1:** The number and the value of foreign acquisitions by Indian MNEs are positively associated with the domestic stock market index.

### 2.1.2 Foreign exchange rate

Our second argument is that the exchange rate of the Indian rupee against the U.S. dollar has facilitated the undertaking of foreign direct investments by Indian firms. An appreciation of the home country currency discourages exports while encouraging overseas investment, therefore facilitating import-substituting FDI. Many studies (Aliber, 1970, Stevens, 1993, Blonigen, 1997) centre on the exchange rate as a critical determinant of FDI.

The strengthening of the Indian rupee against the U.S. dollar during the period 2003 to 2007, which made the valuation of target companies abroad attractive, coincided with a surge in foreign acquisitions by Indian firms. The exchange rate of the Indian rupee against the U.S. dollar, which peaked in 2002 at 48.6 INR/USD appreciated by more than 15 per cent by 2007 (Figure 2). This might have had an impact on the volume of foreign acquisitions. We expect a negative sign because we take the direct quote (INR/USD) of foreign exchange. Thus, our hypothesis is:

**Hypothesis 2:** The number and the value of foreign acquisitions are negatively associated with depreciation of the USD against the INR.

\*\*\*\*\*Insert Figure 2 about here\*\*\*\*\*

### 2.1.3 English language

A common language facilitates business by improving the communication and bridging cultural and psychic distance (Bond and Yang, 1982; Doh, Bunyaratavej, and Hahn, 2009). Recently language has been found to be an important driver of foreign direct investment (Doh et al., 2009, Akkermans, Harzing, and Witteloostuijn, 2008; Feely and Harzing, 2002) as it can reduce transaction costs (Buckley and Casson, 1976; Williamson, 1981) and facilitate business

exchange (Doh et. al, 2009). We argue that proficiency in the English language by Indian youth is also a CSA on which many Indian firms can draw to create strong internal labour markets. This has enabled many Indian firms to become leading business services providers in the world, e.g. Infosys; Tata Consultancy Services (TCS).

The English language is a legacy of Britain's colonial rule. During that era many Indian leaders such as *Pt. J. L. Nehru*, India's first prime minister, *Mahatma Gandhi* and many others were educated in British universities and on India's obtaining independence in 1947, they adopted the English language as second official language in India along with British systems of governance. Today India has the largest number of English-speaking people in the world and the largest-selling English daily newspaper, the *Times of India*. The ability of Indians to converse in English language enhances the ability of Indian business houses to internationalise especially in English-speaking countries. Thus, we anticipate that Indian firms would be more inclined to do business with the English speaking countries.

**Hypothesis 3:** The number and the value of foreign acquisitions by Indian MNEs are positively associated with English-speaking countries.

## **2.2 Host country specific location advantages**

The best way to examine the locational advantage of host countries is in terms of the motives that MNEs have to invest there. Dunning suggests four major motives: market-seeking, resource-seeking, efficiency-seeking and strategic asset seeking (Dunning, 1977, 1980). As India has abundance of low cost labour we do not expect to see efficiency-seeking as a motive for internationalisation in Indian acquisitions.

### **2.2.1 Market seeking FDI**

Firms aim to capitalise on ownership of well-established brands, marketing skills and overseas distribution networks by seeking large foreign markets. Acquisitions provide an easy and speedy entry into a foreign market. Many studies have found a positive relation between FDI and the market size of the host country (see Chakrabarti, 2001). Many Indian MNEs across different industries have made acquisitions for market seeking motives for instance: Real Value Hosting acquired Vision Online Network, the Ontario-based provider of web hosting services. Essar Communications acquired Econet Wireless International from Kenya to enter into African mobile phones market. Zydus Candila healthcare, a pharmaceutical company acquired Simayla pharmaceutical of South Africa. In the press release issued by the firm at the time of the acquisition Mr. Pankaj Patel, Chairman and Managing director, Zydus Candila, said “South Africa has been one of key focus markets and Simayla's expertise and promising growth will unlock value us as Cadila look to consolidate and grow our business in this market rapidly” (Zydus, 2008). We therefore hypothesise the following:

**Hypothesis 4:** The number and the value of foreign acquisitions are positively correlated with a host economy's market size.

### **2.2.2 Resource-seeking FDI**

Firms aim at controlling and accessing natural resources available in a host economy. Internalisation theory asserts the importance of equity-based control, which can be implemented through acquisition, in the exploitation of natural resources (Buckley et. al., 2007). This strategic move to acquire natural resources is generally made by firms operating in the manufacturing sector. India is prominently a service driven economy, yet there are important



instances where Indian MNEs have secured access to inputs to sustain their growth - for example, acquisition of Russia's Sakhalin and Sudan's Greater Nile by ONGC; USA's General Chemicals by Tata Chemicals in 2008 and Corus by Tata Steel in 2006. Thus, we hypothesise the following:

**Hypothesis 5:** The number and the value of foreign acquisitions are positively correlated with a host country's endowments of natural resources.

### **2.2.3 Strategic-asset seeking FDI**

Firms aim at acquiring strategic assets such as brands, high technology and scarce skills. Foreign acquisitions by Indian firms have been directed at the acquisition of knowledge and technology to complement their FSAs. Pradhan (2007) argues many software companies from India with ownership advantages might have moved abroad to acquire further knowledge, skill and technology that were not available at home. There are various examples of acquisitions in knowledge-based industries where acquisitions were made to access foreign technology and know-how such as the acquisition of the small molecules business firm Dowpharma, a Cambridge-based biotechnology company and Betapharm Arzneimittel GmbH of Germany by Dr Reddy's Laboratories Ltd; Phoenix Global Solutions (I) Pvt Ltd, an application services provider by Tata Consultancy Services Ltd. Thus, we hypothesise that:

**Hypothesis 6:** The number and the value of foreign acquisitions are positively associated with a host country's endowments of knowledge-based assets.

## **2.3 Distance between home and host country**

This section builds hypothesis on the geographical and cultural distance between the home and host countries.

### **2.3.1 Geographical and cultural distance**

Both physical and cultural distances are adduced as being important in FDI decisions because they impact on transport costs and transaction costs respectively.

Cultural closeness will reduce transactions costs and the risks of entering a foreign market because of similarity of business laws, customs, way of doing business and possibly familial links (Johnson and Vahlne 2009). We therefore expect a negative relationship between cultural distance and Indian acquisitions.

The greater the physical distance between nations, the greater the costs of transporting goods (services may not be affected to greatly). Consequently, we expect a positive relationship between geographic distance and foreign acquisitions because physically closer markets will be serviced by exports, whilst servicing more distant markets will incur extra transport costs for exports and MNEs will prefer FDI and acquisition (Buckley and Casson 1981).

However, in the case of India this traditional hypothesis may not apply. India does not have close trading (or cultural) links with its near-neighbours due to political differences and lack of economic integration within the South Asian countries (Foreign and Commonwealth Office 2007).

**Hypothesis 7:** The number and the value of foreign acquisitions are negatively associated with the host country's cultural distance from India.

**Hypothesis 8:** The number and the value of foreign acquisitions are negatively associated with the host country's geographic distance from India.

## **2.4 Home-host country-specific linkages**

Like CSAs home country's international linkages can also affect the motivations and internationalisation strategies of indigenous firms (Murtha and Lenway, 1994). International linkages such as bilateral treaties and membership of international organisations may benefit trade and investment relationships among member countries (Raff, 2004; Gao, 2005; Medvedev, 2006). Buckley, Clegg, Forsans and Reilly (2003) found that NAFTA promoted trade between firms located in member countries and encouraged intra-bloc investments among member countries.

It is arguable that as the world increasingly integrates that globalisation means that networks and linkages between firms become more important. The growth of global value chains and their integration with "global factories" (Buckley, 2009) means that linkages assume great importance in the strategy of MNEs. It has been argued that emerging country multinationals increasingly utilise such linkages as competitive tools (Matthews, 2009). Because of these firm level linkages, linkages between countries too assume greater importance at least partly because of their role as facilitators of international economic exchange. This is alleged to be true of India – "India likewise is flexing its muscles internationally, in defence of its premier IT firms and in trade initiatives as a member of the Group of 20 (G20)" (Matthews, 2009, p.8). This suggests

that both trade and non trade links at country level will be important determinants of FDI, and for Indian firms in particular.

In the following section we formulate hypotheses on the home country's linkages with host economies. These linkages are categorised into two: (i) non-trade linkages; and (ii) trade linkages.

#### **2.4.1 Non-trade linkages**

In this paper we consider India's non-trade (socio-political-economic) linkages such as India's membership of the G15 forum (a south-south economic cooperation); membership of the G20 and the Commonwealth (both north-south economic cooperation).

Membership of the Commonwealth is a good starting point to talk about India's non-trade linkages, in the post-independence period, with the rest of the world. The Commonwealth, established in 1870, is a voluntary association of 54 countries (formerly under the British rule) including the UK with India being the largest Commonwealth member country in terms of population. The Commonwealth is a political organisation that aims to promote democracy, facilitate international negotiations between member countries and promote economic and social development. The Commonwealth plays a crucial role in policy, political, social and developmental aspects for member countries. ([www.thecommonwealth.org](http://www.thecommonwealth.org)).

After attaining independence India started to support the non-aligned movement and promoted south-south cooperation through the platform of the G15, a group of developing countries. The G15 was established at a Non-Aligned summit in 1989 and it consists of a summit-level group of 19 developing countries.

India always aimed at promoting cooperation among developing nations for mutual commercial and economic benefits in order to reduce their dependence upon developed countries. However, in recent past India has started to look forward for north-south cooperation and joined the G 20. The G20 was established in 1999 by a group of major advanced and emerging economies to promote financial stability, sustainable economic growth and development through unprecedented and coordinated expansionary macroeconomic policies. The G20 cooperates closely with various other international organisations such as the World Bank, IMF to develop common position and policies for global development.

Coordinated macroeconomic policies among member countries certainly promote the networking and linkages among the firms from member countries. These international fora can promote trade and investment between member countries not only because of cooperation among the member countries but also because such integration may bring complementarities among nations, for example the G15 countries produce about a quarter of global crude oil output and may facilitate resource-seeking FDI among member countries. Similarly, firms from the G20 countries may undertake market-seeking FDI in other member countries because the G20 account for about 90 per cent of global gross national product, 80 per cent of world trade (including EU intra-trade) and two-thirds of the world's population ([www.G20.org](http://www.G20.org)). Finally, common policies implemented by member countries provide institutional near-uniformity to firm's intending to undertake OFDI within member countries. Thus, our hypothesis is:

**Hypothesis 9:** Foreign acquisitions by Indian MNEs both in value and numbers are positively associated with host countries having non-trade linkages of social, economic and political nature with India.

### 2.4.2 Foreign-trade linkages

The Stages model of internationalisation suggests that internationalisation of firms begins with exporting activity of firms (Johanson and Wiedersheim, 1975; Johanson and Vahlne, 1977). Exporting firms are likely to make forward expansion by directly serving the market (Korhonen, Luostarinen, and Welch, 1996; Hatonen, 2009). Thus, firms usually invest in countries where already exporting and importing relations exists because the firms understand the foreign market through their exporting / importing experience (Buckley and Pearce, 1979; Dunning, 1980). Learning helps firms to internalise operations undertaken indirectly through exporting (Buckley and Casson 1976, 1985). Besides learning, the attractiveness of a foreign market can further motivate a firm's investment decision (Dunning 1977, 1980) leading to a switch from export to FDI in the firm's foreign market servicing strategy.

FDI may be undertaken by importing firms for reasons such as for ensuring smooth supply, lowering transaction costs or extending control over operations. Some early studies (Korhonen et al., 1996, Johanson and Mattsson, 1988) recognised sourcing and importing, i.e., supply side transactions of firms as an important form of internationalisation. Korhonen et al. (1996) found that more than half Finnish MNEs internationalised during the 1970s and 80s through importing and sourcing. Thus, we hypothesise that:

**Hypothesis 10:** Foreign acquisitions by Indian MNEs both in value and numbers are positively associated with the volume of foreign trade with partner countries.

## 3. Method and Data

Data for the study was sourced from the Thomson One Banker for the period from January 2000 to December 2007. The Indian official source of data on foreign direct investment, The Reserve

Bank of India, neither compile data on cross-border mergers and acquisitions, nor does it publish disaggregated outward FDI data. We tested the Thomson One Banker's database for its exhaustive coverage by manually checking all reported acquisitions over a sample period of six months and were satisfied that our database covered the whole population of acquisitions undertaken abroad by Indian firms. Our dataset reveals that 866 acquisitions of firms headquartered in 82 countries took place over the period 2000-2007 by Indian firms.

We collected information on foreign acquisitions both in numbers and value of acquisitions and tested our hypotheses using both dependent variables, i.e., the number of foreign acquisitions abroad by Indian firms and the value of these acquisitions over the period 2000-2007. We matched the dependent variable (acquisitions both in numbers and value) by year by host countries and collected independent variables (such as host-country's GDP, foreign trade, geographic distance, and so on) by year for each host country to create a panel data set. As we expect a non-linear relationship among the variables, we transformed both the dependent and independent variables, excluding dummy variables, into natural logarithms and derived a log-log linear model. Log-log function enables the transformation of non-linear relationship between our dependent and independent variables into a linear one and measures FDI elasticity with respect to our set of explanatory variables (Crown, 1998). Thus, our models are as follow:

$$(1) \ln(MAValue_{it}) = a + b_1 \ln(GNIPC_{it}) + b_2 \ln(RESOURCE_{it}) + b_3 \ln(PATENT_{it}) + c_1 \ln(SENSEX_{ind\ t}) + c_2 \ln(FERATE_{ind\ t}) + c_3 \ln(ENGLISH) + d_1 \ln(G15) + d_2 \ln(G20) + d_3 \ln(COMN\_WEALTH) + d_4 \ln(FTRADE\_LINK) + e_1 \ln(GEOG\_DIST_{ij}) + e_2 \ln(CULTURE\_INDEX_{ij}) + f_1 \ln(OPENNESS_{it})$$

$$(2) \ln(MANo_{it}) = a + b_1 \ln(GNIPC_{it}) + b_2 \ln(RESOURCE_{it}) + b_3 \ln(PATENT_{it}) + c_1 \ln(SENSEX_{ind\ t}) + c_2 \ln(FERATE_{ind\ t}) + c_3 \ln(ENGLISH) + d_1 \ln(G15) + d_2 \ln(G20) +$$

$$d_3 \ln(\text{COMN\_WEALTH}) + d_4 \ln(\text{FTRADE\_LINK}) + e_1 \ln(\text{GEOG\_DIST}_{ij}) + e_2 \ln(\text{CULTURE\_INDEX}_{ij}) + f_1 \ln(\text{OPENNESS}_{it})$$

In the regression models mentioned above we used b's, c's, d's, e's and f's to represent different categories of variables in the equation. b's are used to represent the regression coefficient for host country locational advantages, while regression coefficient c's represents CSAs; d's are used with variable representing home-host country linkages, e's are used for distance variables and finally, f's are used for the control variables.

The only control variable used in this study is trade openness of the host country. It is necessary to keep trade openness as control because the openness of an economy affects the home country's international linkages; MNEs choice in making FDI as location variable; and also the trade and investment direction (Asiedu, 2002). In fact, linkages between home and host countries are not only affected by openness but also affect openness of economies, for instance, bilateral ties allows foreign trade and similarly rising foreign trade flows may bring ties among home and host country.

In the above regression models, *i* stand for host country; *ind* stands for India (home country) and *t* for time. Thus, *MAValue<sub>it</sub>* refers to an acquisition in the *i<sup>th</sup>* country at time *t*. Similarly, *RESOURCE<sub>it</sub>* refers to natural resources in the *i<sup>th</sup>* country at time *t*, while *SENSEX<sub>ind t</sub>* refers to acquisitions in the home country (India) at time *t* and so on.

The definition and source of each variable in our models are highlighted in the table 1, which shows that our independent variables are taken from reliable sources. Our model specification is also reliable because we covered both aspects of acquisitions, i.e., numbers and value.

\*\*\*\* Insert Table 1 about here \*\*\*\*



As mentioned in the table 1, we use a dummy variable for ENGLISH (equal to 1 for country  $i$  if English is official or primary national language or national *lingua franca*, and 0 otherwise), G15 (equal to 1 for country  $i$  if country  $i$  is member of the G20 and, 0 otherwise), G20 (equal to 1 for country  $i$  if country  $i$  is member of the G20, 0 otherwise), and COMN\_WEALTH (equal to 1 if country  $i$  is a member of the Commonwealth and, 0 otherwise).

To deal with zero values for non-dummy variables we followed Eichengreen and Irwin (1995), and added .001 to the value of the variable and then took the log of the result. This is because for a large value of  $y$ ,  $\log(y)$  approximately equals  $\log(y+.001)$ .

We have used two distance variables: - geographical distance, for which we measured the distance between the capital of home and host country; and cultural distance, which is measured by the modified version of Kogut and Singh's index (Benito and Gripsrud, 1992; Agarwal, 1994; Barkema, Bell, and Penning, 1996). Kogut and Singh's (1988) composite index on cultural distance is based on a formula which takes the difference between the index scores of different countries relative to the USA. To use the index with reference to India we took difference in the index between the various host countries relative to India. Thus, algebraically:

$$CD_i = \sum_{c=1}^4 \{ (I_{ci} - I_{c\ ind})^2 / V_c \} / 4$$

Where,  $CD_i$  = cultural distance of  $k^{th}$  country from India

$I_{ci}$  = index of the  $c^{th}$  cultural dimension and the  $i^{th}$  country

$I_{c\ ind}$  = index of the  $c^{th}$  cultural dimension of the India (*ind* stands for India).

$V_c$  = is the variance of the index of the  $c^{th}$  cultural dimension.

The regression is run categorically. First of all we run the regression using independent variables covered under the CSL category (represented by  $d$ 's in the regression model) and the results are

presented as Model A in table number 2, 3, 4 and 5. Subsequently, variables under host country's locational advantages and CSAs category (represented by a's, b's, c's and e's respectively) were used as independent variables and the results are presented as Model B in table number 2, 3, 4 and 5. Finally, both types of variables are introduced together – the results are presented as Model C in table number 2, 3, 4 and 5. Running regression in categories enabled us to produce results for host-home linkages and results for host country locational advantages and CSAs, independently. If the explanatory power of the combined results improves by putting both category of variables together, i.e., if the results in Model C are better, in comparison to the results presented in Model A and Model B, we can claim complementarities in the home-host CSAs and home-host CSLs.

## **4. Results and Discussion**

Since our dependent variable is expressed in two ways – in value and in number, we have two fold results. Multiple regression results are presented in Tables 2 and 4 for Indian acquisitions abroad expressed in number while results in Tables 3 and 5 uses India's foreign acquisitions in value as a dependent variable. To check for collinearity the variance inflation factor (VIF) and tolerance are also presented with the results. It can be observed that the data do not suffer from multicollinearity and the OLS regressions results are robust and consistent across both models.

### **4.1 Complementarity between country specific advantages and linkages**

Complementarity between CSAs and CSL is established in table 2 and 3. The increase in R square value signifies the improvement in model and is a test of complementarity. The value of R square in the model C is higher than the value in the model A and B and the change statistics

are significant. In case of acquisitions measured in number the extra degree of explanation (model C compared to model B) is about 5.7 percent, while in case of acquisition measured in number it is 6.7 percent. In percentage terms model C has more than 23% ( $5.7/24.5 \times 100$ ) more explanatory power for acquisitions measured in numbers and 27% ( $6.7/24.5 \times 100$ ) more explanatory power when acquisitions are measured in value.

\*\*\*\*\*Table 2 about here\*\*\*\*\*

\*\*\*\*\*Table 3 about here\*\*\*\*\*

#### **4.2 Home country- specific advantages**

In order to evaluate home country-specific advantages we considered three sets of determinants: domestic capital market (SENSEX), foreign exchange rate (FOREX) of the Indian Rupee against the US Dollar, and language proficiency (ENGLISH) which represents our hypotheses 1, 2 and 3 respectively. We find that all these factors are significant and have an expected positive sign. These results are now discussed in detail.

\*\*\*\*\*Table 4 about here\*\*\*\*\*

\*\*\*\*\*Table 5 about here\*\*\*\*\*

SENSEX represents India's Bombay Stock Exchange (BSE) index. We found that foreign acquisitions had a significant and positive relationship with SENSEX (Hypothesis 1). Thus, as hypothesised, the rising number of foreign acquisitions by Indian MNEs is linked positively with the rising stock pricing of Indian MNEs. We can also observe from Figure 1 that Indian MNEs raised more capital during the period 2003-2007, when SENSEX was rising. It seems that Indian MNEs exploited the opportunity of rising stock prices by raising capital during that period.

Thus, it is quite likely that Indian companies might have used the capital raised during the boom in the domestic capital market to fund these foreign acquisitions.

Hypothesis 2 on foreign exchange rate (FOREX) is also confirmed - the depreciation of the US dollar has facilitated the process of undertaking foreign acquisitions. During the period 2002-2007 the Indian Rupee appreciated by 15 percent against US dollar (see Figure 2). The depreciation of the US dollar made valuations of foreign target companies attractive to Indian firms. Thus, it is likely that Indian firms indenting to internationalise would have taken this opportunity by acquiring foreign firms at relatively attractive valuations.

We also hypothesised on language (ENGLISH) that we expected that Indian MNEs' foreign acquisitions to be inclined towards English-speaking countries (Hypothesis 3). This hypothesis was also supported for both acquisitions in value and in numbers. We believe the reason is Indians' proficiency in English language, a country-specific advantage. English is a legacy of India's colonial linkages with the UK. Today English is the second official language in India and undoubtedly the language of the business community within the public and private sector. The proficiency in English language acts as an intangible asset for many Indians businesses while operating in countries speaking countries, where English is either official, primary national language or *lingua franca*.

#### **4.3 Host Country Location Advantages**

Having discussed the home country-specific advantages we now turn to host countries' location advantages. For locational advantages we considered three sets of determinants: market seeking motives (GNIPC), endowment of natural resources (RESOURCE) and endowment of knowledge

assets (PATENT) which represents our hypotheses 4, 5 and 6 respectively. We find support for hypotheses 4 and 6 but not for 5. These results are now discussed below.

Our preliminary results confirm the significance of host country's market size. In other words, market-seeking motives (Hypothesis 4) measured by the size of the host country's market (GNIPC) is significant. Thus, a larger market size leads to more acquisitions (both in value and in numbers). Acquisitions are an effective and speedy foreign market entry strategy in developed economies with mature and competitive markets where greenfield investments may take much longer to succeed. Market seeking motives also provide ownership of well-established brands, marketing skills and marketing distribution networks overseas (Pradhan and Abraham, 2005) and brand building has been one of the major objectives of Indian companies when investing abroad (Sauvant, 2005).

Host countries' natural resource endowment (Hypothesis 5) is insignificant following the inclusion of host-home country linkages in Model C. This result commensurate with the fact that India is mainly a service driven economy (services sector accounts for about 60% of India's GDP) and therefore the natural resource seeking motive is not a primary motive for Indian MNEs when investing abroad.

Endowment of knowledge assets (Hypothesis 6) is significant and positively associated with India's foreign acquisitions as expected. This result highlights Indian firms' need to secure access to knowledge assets and foreign technology in order to develop their capabilities. The dominant share of services in India's GDP also reflects the fact that Indian MNEs are increasingly engaged in the services sector and to enhance their capabilities these firms require access to advanced technology and know-how most usually available in developed countries.

#### **4.4 Distance between home and host country**

We hypothesised that the relationship of cultural (CDI, hypothesis 7) and geographical (GEOG-DIST, hypothesis 8) distance with Indian foreign acquisitions may not be significant due to lack of economic integration and political rivalry within the South Asian countries. In none of the equations are these variables were significant. Political rivalry in South Asian countries is such that it affects the trade and investment relationships, forgoing advantages of cultural and geographical closeness, and makes the region as one of the least economically integrating within the world (Foreign commonwealth Office, 2007).

We hypothesised a negative relationship between both cultural (CDI, hypothesis 7) and geographical (GEOG-DIST, hypothesis 8) distance and Indian foreign acquisitions. In none of the equations are these variables significant. For geographic distance, we can understand this because of the weak links between Indian and neighbouring South Asian countries. The cultural distance variable is more difficult to explain and may arise because diaspora links are more important than “pure” cultural distance. In other words, Indian expatriates act as cultural bridges to countries that are seemingly distant, thus ameliorating cultural distance.

#### **4.5 Home-host country linkages**

Linkages were divided into two main categories: i) trade linkages (TRADE\_LINK) (Hypothesis 10) and, ii) non-trade linkages (Hypothesis 9) such as membership of international forums like the G20, the G15 and the Commonwealth. These socio-political-economic linkages covered both the South-South and North-South types of cooperation.

Interestingly we find India's North-South linkages such as the G20 and the Commonwealth countries to be significant in explaining foreign acquisitions by Indian MNEs but South-South insignificant. This result confirms our expectations: non-trade linkages between India and developed countries are positively associated with mergers and acquisitions in host countries. However, non-trade linkages between India and other developing economies are insignificant – the pattern of acquisitions made by Indian firms is heavily biased toward rich, developed countries in search of markets, technology and know-how in which developing economies are poorly endowed. This result contrasts with the pattern exhibited by Indian OFDI in the 1960s (the “first wave” in Pradhan's terminology) when India implemented an import-substituting development strategy that relied heavily on South-South cooperation (Pradhan 2005, Ramamurti and Singh, 2008) and resource-seeking FDI. The contrast in our results for both variables further demonstrates the shift in the type of India's OFDI, from resource-seeking to market- and strategic asset-seeking, and its destination, away from developing economies of South Asia into Western, developed economies. In summary, Indian MNEs are looking at developed countries for accessing foreign technology and know-how not found at home. This finding is also in line with Pradhan's (2007) findings where he argued that many Indian software companies with ownership advantages had moved abroad to acquire further knowledge, as well as skills and technology that were not available at home.

We also examined Indian's foreign trade as linkages between home and host countries (Hypothesis 10). Trade linkages are significant. Exporting and importing are usually initial steps in internationalisation (Johanson and Wiedersheim, 1975; Johanson and Vahlne, 1977; Korhonen et al., 1996; Hatonen, 2009) and therefore countries with significant trade links may

be seen as the first foreign destination for Indian firms that venture overseas. This result also confirms the trade-supporting nature of India's overseas investments.

## **5. Conclusion**

This paper has modelled the country level influences on FDI using the case of foreign acquisitions by Indian firms (by number and value) over the period 2000 to 2007. It finds that conventional explanations – home country specific variables such as the cost of capital, the exchange rate and language – perform well. So too do host country location factors such as market size, local intangible assets but not, in this case, natural resources as motives for FDI. We did not expect natural resources to be important given the structure of the Indian economy and its MNEs and this proved to be the case. The openness of the host economy to trade also proved to be an important determinant of acquisition by Indian MNEs. Linkage variables generally performed as expected with North-South linkages at country-level being a significant factor in the destination of Indian acquisitions abroad. However, South-South linkages and cultural and geographical distance between home and host country were insignificant. The poor performance of South-South linkages is explained by the preference of Indian firms for acquisitions in rich countries where the largest markets and greatest concentration of intangible assets are to be found. Cultural and geographic distance variables do not perform with any degree of significance and do not seem to be factors in Indian MNE's foreign acquisition decisions. This may be due to the location of the Indian diaspora. Expatriate Indians may act as culture-bridges. The importance of services in Indian trade (and DFI) reduces the importance of physical distance.



The contribution of this paper is that the finding that host-source country linkages are important determinants of foreign investment behaviour. Linkage variables, such as trade linkages and membership of international organisations (in this case the Commonwealth and the G20) add significantly to the explanatory power of the eclectic paradigm. Even though the standard variables of the eclectic paradigm perform better than LLL variables separately; when combined LLL variables add power to the explanation of foreign acquisitions by Indian firms. Linkage variables need to be used with discretion however - it is North-South that performs well here – concentration on South-South links would not have been successful. Linkage variables require an understanding of the nature, structure and motives of FDI in order to be useful. They are not a satisfactory alternative explanation to the eclectic paradigm. They are an adjunct to the paradigm.

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**Table 1: Variables and Data Sources**

	Variable (General)	Proxies	Expected Sign	Theoretical Justification	Data Source
Dependent Variables	Outward FDI from India	Value of foreign acquisitions by Indian firms ( <b>Acq_Value</b> )  Number of foreign acquisitions by Indian firms ( <b>Acq_No</b> )	Dependent Variable		Thomson One Banker
Home Country (India) specific Variables	Domestic Capital Market (Hypothesis 1)	Bombay stock exchange index ( <b>SENSEX</b> )	+	Special Variable	Bombay Stock Exchange
	Exchange Rate (Hypothesis 2)	Host country official annual average exchange rate against dollar ( <b>FOREX</b> )	–	Macro Economic Factors	World Bank Development Indicator
	English Speaking Host Country (Hypothesis 3)	Binary Code ( <b>ENGLISH</b> )	+	Uppsala Model	Central Intelligence Agency (CIA) World Factbook 2008
Host country specific Location Variables	Market Size of Host Country (Hypothesis 4)	GDP and Per capita GDP ( <b>GNIPC</b> )	+	Market Seeking	World Bank Development Indicator
	Natural Resource Endowment of Host Country (Hypothesis 5)	Ratio of ore and metal exports to merchandise exports of host country ( <b>RESOURCE</b> )	+	Resource Seeking (Leverage)	World Bank Development Indicator
	Endowment of Knowledge Based Asset of Host Country (Hypothesis 6)	Yearly patent registration by residents in host country ( <b>PATENT</b> )	+	Resource Seeking (Leverage)	World Intellectual Property Organisation
Distance Variable	Cultural Distance Index (Hypothesis 7)	Kogut and Singh CD Index ( <b>CDI</b> )	–	Uppsala Model	Kogut and Singh (1988)
	Geographical distance of host country (Hypothesis 8)	Distance between the capitals of host and home country ( <b>GEOG_DIST</b> )	–	Transaction Cost	Calculated using <a href="http://www.geobytes.com">www.geobytes.com</a>
Control	Economy Openness of Host Country	Ratio of foreign trade to GDP ( <b>OPENNESS</b> )	+	Transaction Cost	World Bank Development Indicator
Home-Host Country Linkages	Non-Trade Linkages: North-south cooperation (Hypothesis 9)	Members nations of the Commonwealth ( <b>COMN_WEALTH</b> )  Membership of the G-20 summit ( <b>G-20</b> )	+	LLL Model	<a href="http://www.thecommonwealth.org">www.thecommonwealth.org</a> (Website of the commonwealth)  <a href="http://www.g20.org">www.g20.org</a> (Website of G20)
	Non-Trade Linkage: South-south cooperation (Hypothesis 9)	Membership of the G-15 ( <b>G-15</b> )	+	LLL Model	<a href="http://www.g15.org">www.g15.org</a> (Website of G15)
	Trade Linkages (Hypothesis 10)	Foreign trade partners ( <b>TRADE_LINK</b> )	+	LLL Model	World Bank Development Indicator

**Table 2: Model Summary (Foreign Acquisition in Number)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
A	.327 <sup>a</sup>	.107	.100	5.48210	.107	15.533	5	649	.000***
B	.495 <sup>a</sup>	.245	.233	5.06250	.245	20.375	9	566	.000***
C	.549 <sup>c</sup>	.301	.285	4.88591	.057	11.414	4	562	.000***

a. Predictors: (Constant), Common\_wealth, G15, LTrade\_Link, G20

b. Predictors: (Constant), LGNIPC, LResource, LPatent, LForex, LSensex, English, LCDI, LGeog\_Dist, LOpenness

c. Predictors: (Constant), LGNIPC, LResource, LPatent, LForex, LSensex, English, LCDI, LGeog\_Dist, LOpenness, Common\_wealth, G15, LTrade\_Link, G20

**Table 3: Model Summary (Foreign Acquisition in Value)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
A	.347 <sup>a</sup>	.120	.114	5.95161	.120	17.754	5	649	.000***
B	.495 <sup>b</sup>	.245	.233	5.52533	.245	20.369	9	566	.000***
C	.558 <sup>c</sup>	.311	.295	5.29524	.067	13.564	4	562	.000***

a. Predictors: (Constant), Common\_wealth, G15, LTrade\_Link, G20

b. Predictors: (Constant), LGNIPC, LResource, LPatent, LForex, LSensex, English, LCDI, LGeog\_Dist, LOpenness

c. Predictors: (Constant), LGNIPC, LResource, LPatent, LForex, LSensex, English, LCDI, LGeog\_Dist, LOpenness, Common\_wealth, G15, LTrade\_Link, G20



**Table 4: Regression results for M&A in Number**

Variables	Standardized Coefficients Beta (Significance)			Collinearity Statistics	
	Model A	Model B	Model C	Tolerance	VIF
(Constant)	-9.766 (.000)***	-37.429 (.000)***	-39.770 (.000)		
LSENSEX (Hypothesis 1)		.369 (.000)***	.365 (.000)***	.726	1.378
LFOREX (Hypothesis 2)		-.102 (.017)**	-.118 (.005)***	.708	1.413
ENGLISH (Hypothesis 3)		.110 (.005)***	.099 (.009)***	.879	1.137
LGNIPC (Hypothesis 4)		.156 (.001)***	.110 (.024)**	.529	1.889
LRESOURCE (Hypothesis 5)		.122 (.010)***	.041 (.412)	.488	2.049
LPATENT (Hypothesis 6)		.184 (.000)***	.166 (.000)***	.666	1.502
LCDI (Hypothesis 7)		-.051 (.179)	-.034 (.355)	.939	1.065
LGEOG_DIST (Hypothesis 8)		-.019 (.629)	-.020 (.637)	.671	1.491
LOPENNESS (Control)	-.131 (.000)***	-.172 (.000)***	-.140 (.002)***	.591	1.691
COMMON_WEALTH (Hypothesis 9)	.093 (.012)**		.111 (.003)***	.917	1.090
G15 (Hypothesis 9)	.000 (.995)		.000 (.984)	.750	1.334
G 20 (Hypothesis 9)	0.263 (.000)***		.168 (.000)***	.798	1.254
LTRADE_LINK (Hypothesis 10)	.086 (.023)***		.111 (.013)**	.625	1.599

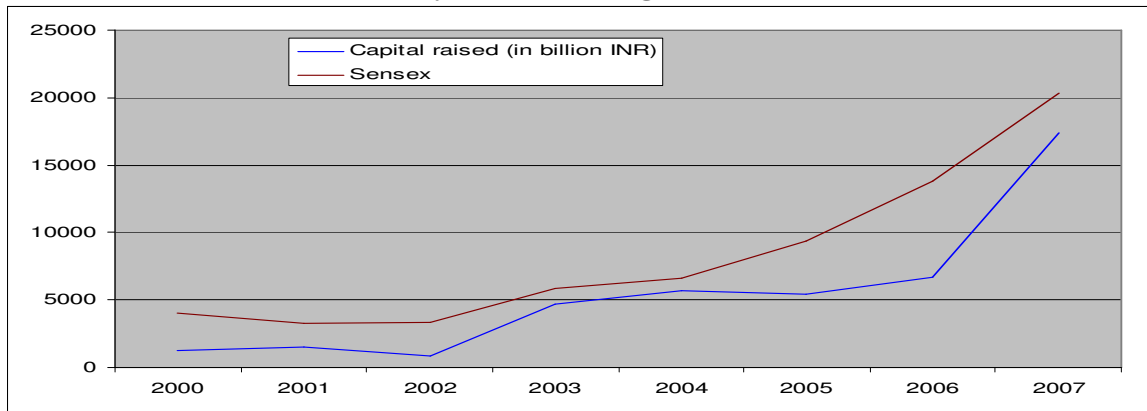
\*\*\* Significant at 1 %; \*\* significant at 5%; \*significant at 1%

**Table 5: Regression results for M&A in Value**

Variables	Standardized Coefficients Beta (Significance)			Collinearity Statistics	
	Model A	Model B	Model C	Tolerance	VIF
(Constant)	-9.680 (.000)***	-44.637 (.000)***	- 47.520 (.000)		
LSENSEX (Hypothesis 1)		.373 (.000)***	.366 (.000)***	.726	1.378
LFOREX (Hypothesis 2)		-.114 (.008)***	-.129 (.002)***	.708	1.413
ENGLISH (Hypothesis 3)		.126 (.001)***	.115 (.002)***	.879	1.137
LGNIPC (Hypothesis 4)		.140 (.004)***	.086 (.073)*	.529	1.889
LRESOURCE (Hypothesis 5)		.114 (.016)*	.025 (.618)	.488	2.049
LPATENT (Hypothesis 6)		.182 (.000)***	.156 (.000)***	.666	1.502
LCDI (Hypothesis 7)		-.040 (.288)	-.023 (.532)	.939	1.065
LGEOG_DIST (Hypothesis 8)		.031 (.442)	.031 (.464)	.671	1.491
LOPENNESS (Control)	-.133 (.000)***	-.159 (.001)***	-.121 (.008)***	.591	1.691
COMMON_WEALTH (Hypothesis 9)	.077 (.036)**		.098 (.008)***	.750	1.334
G15 (Hypothesis 9)	.012 (.751)		-.009 (.829)	.917	1.090
G 20 (Hypothesis 9)	.297 (.000)***		.189 (.000)***	.798	1.254
LTRADE_LINK (Hypothesis 10)	.067 (.075)***		.133 (.003)***	.625	1.599

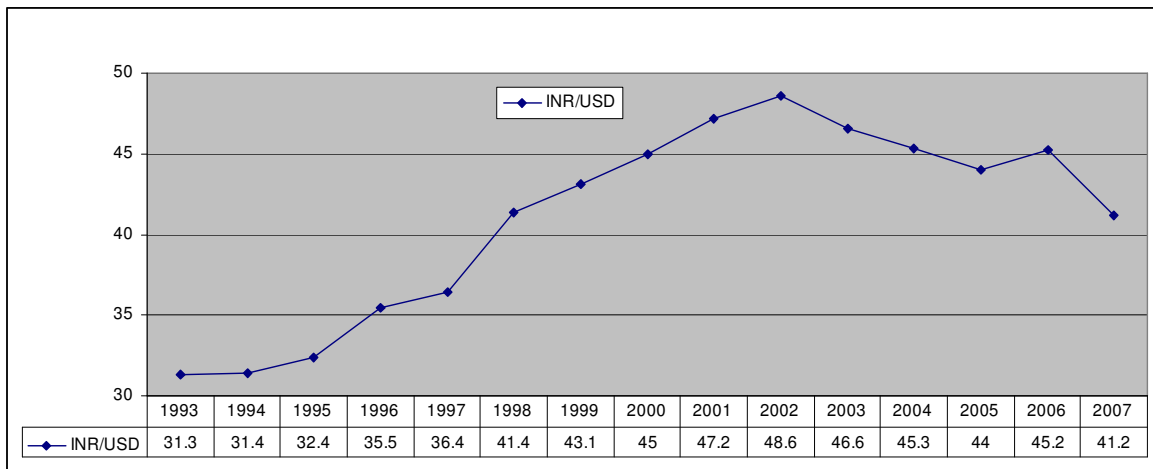
\*\*\* Significant at 1 %; \*\* significant at 5%;\*significant 1%

**Figure 1: Capital Raised by Indian Companies within India, in INR billion and the Bombay Stock Exchange Index (Sensex)**



Source: EPW Research Foundation (2008)

**Figure 2: Foreign Exchange Rate of the Indian Rupee against USD**



Source: The Federal Reserve (2008)