What drives Indian Non-SOE FDI into Africa?

Ankur Bhatnagar[†]

Abstract
This paper puts FDI received by Africa from Indian enterprises that are not owned by State owned enterprises (non-SOE) under the empirical lens, placing it within a broader mandate of increasing Indo-African relations beyond trade. The use of international business literature for a qualitative regression analysis using panel data for 2008-18 shines a light on the host country factors that drive FDI to Africa. These include country alliances, GDP and net overseas development assistance of host African countries. This analysis contributes to the sparse literature on African FDI inflows from developing countries like India. It also pioneers the distinction between Indian SOEs and non-SOEs in an empirical analysis.

Key Words: FDI; India; Africa; Corruption; foreign aid; country alliances.
JEL Classification Codes: F21, F23, O19.

[†] Associate Professor of Economics, Satyawati College, University of Delhi, India, Address: Satyawati College, Ashok Vihar, Delhi 110052, India, Mob: +91 9911190373, Email: research3674@gmail.com

1. Introduction : India and Africa

The historical relations between India and Africa can be traced to a colonial past shared by them, which have taken multiple hues after the liberalization of Indian economy that began in 1991. The policy changes under liberalisation have contributed to rising overseas investments (Beri, 2014). In more recent times, Indian has engaged with Africa as an able partner in South-South cooperation, based on '*developing together as equals'*[1]. This engagement has been shaped by the political engagement through India Africa Summits, and rising investments by Indian state-owned firms (SOEs) in the business of oil exploration and trading, as well as privately owned business (non-SOEs) groups. However, there is relatively little quantitative research of Indian investments to Africa.

This paper contributes to the scant literature on Indian FDI going to Africa., especially in terms of the specific drivers of FDI investments. It also pioneers the segregation of SOE investments from non-SOE led investments for India. Data for 2008-18 for 37[2] African countries shows that Indian investments peaked in 2014 but 98.3 percent of this was done singly by Oil and Natural Gas Corporation Videsh (which is an Indian SOE) in Mozambique to buy 10 percent stake in Rovuma Area 1 offshore Block for its natural gas reserves. This single investment accounts for 69 percent of all SOE led investments and 48 percent of total FDI flows to Africa for the period under study. Similar investments by the same enterprise across Egypt, Congo, Libya and Sudan in 2008 constitute 59 percent of SOE led investments in that year. This dwarfs the quantitative impact of non-SOEs led FDI flows to Africa, and led us to consider only non-SOEs for this paper.

This paper uses a log linear model to confirm four hypotheses made with regard to the effect of country alliances, corruption levels, GDP and net foreign aid on the volumes of non-SOE led FDI from India to different African host countries. The results show significant inflows of FDI into host countries that are a part of the Commonwealth alliance. The effects of GDP and net foreign aid are similar, so that larger economies and recipients of foreign aid rare able to 'pull' in more FDI from Indian firms. The effects of corruption levels in a 'potential' host country are significant only in selected model settings; it remains unclear how 'exactly' corruption impacts on FDI. When corruption levels are used in conjunction with macroeconomic variables, it turns insignificant, but used independently it is a significant predictor of FDI flows. Given the country specific nature and multiple manifestations of corruption, the pathways of corruption impacting on FDI into Africa remain unclear. The effects of lower corruption reveal themselves via multiple routes, especially in terms of the direct effects on macroeconomic variables that are shown to be significant for FDI flows. The results shed light on how alliance membership can provide a foot in the door for African countries that want FDI to come in. The results suggest that such a membership is valuable in indirect ways, one of which is attracting FDI.

The remainder of this paper is organised into a review of literature including hypotheses development (section2), model and data specification (section 3), followed by a discussion of the results (section 4) and finally the policy implications and limitations (section 5).

[1] https://idsa.in/idsacomments/modi-tour-of-africa-revitalises-relations-rberi-210818

[2] Algeria, Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Cote d'Ivoire, Egypt, E-Swatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Liberia, Libya, Republic of Madagascar, Malawi, Mali, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

2. Literature Review

The literature on internalization of business uses the Dunning (1988) OLI model, or the eclectic view as a starting point. It explains how the (L) locational advantages of the host country are exploited by the investing firm by using its own specific (O) competencies, using the route of internationalisation (I) of its activities in the host country. The rise of emerging economies posed newer challenges to this framework, and led to the institutional view. This view is rooted in the macroeconomic environment of the host country. The economic variables traditionally 'pull in' investments - GDP, resources richness, per capita GDP, state of infrastructure, share of trade in GDP, affecting the choice of host country in the internationalisation by firms. The non-economic variables include social, legal and political forces that combine to provide an environment that can prove to be conducive to business and investment flows. The role of the government in building such institutions and thus facilitating investments in host countries is well known. (Li and Ding, 2013). The rise of China as an investor, predominantly by its SOEs has added impetus to this role, particularly in terms of the ownership of firms. The Chinese State support in terms of credit facilities at concessional terms, easy financing options, and political support act as factors that emanate from the home country in the hunt for location for investment avenues.

The traditional IB theory of lowering transactions cost as well as the more recent institution based theory can be strung together as the combination 'provides *layers of interlinked factors that affect firms' FDI* decision (Buckley *et al*, 2016). The CAGE framework encapsulates them as Cultural, Geographical, and Economic distances between the host and home country, which create transaction costs for the firm. These take the form of transportation costs (stemming from geographical distance), tariffs and tax related costs (captured by Economic distance) and human resource costs of adjusting to a new work culture (arising from Cultural distance).

The lowering of transaction costs is the key to choosing the location, volume, and mode of investment in the host country. Administrative distance is an institutional dimension, taking the form of an alliance, agreement, treaty or pact between the host and home country governments. The cooperation among governments, in economic (free trade area, regional trading bloc), or non-economic areas (a security related pact, technology transfer agreement, exchange programs for education, political alliance, regional block) takes the form of an institutional agreement. Such agreements add a layer of 'safety' to and lower the risks involved in internationalizing business. Within the economic arena, agreements that create Free trade Areas and Regional trading agreements can improve profitability by lowering the taxation related costs of business and opening newer markets in a preferential manner for investments in the host country.

Several theories- resource based view, LLL model, and the springboard outlook, outline the drivers of OFDI, in terms of the host country factors that 'pull' investments and the home country factors that 'push' firms to invest abroad. (Buckley *et al*, 2012). The firm level motives for outward investments include seeking markets, and resources, strategic assets, and improving efficiency, beyond the home country geographical boundaries. The host country that satisfies these motives is capable of 'pulling' in investment flows. The push factors range from the home country policies to promote foreign investments, state financial support to investing firms, institutions and the politico-economic objectives of foreign policy.

The Chinese state financial and credit support to its SOEs is an example of some of these factors. Chinese investments in infrastructure related projects involving roads and bridges are increasingly an integral part of the Chinese State sponsored BRI project. It has been shown that the determinants of internationalisation are increasingly based on the nature of ownership of firms (Ramasamy *et al*, 2012). The larger role of political economy in influencing, modifying and expanding the motives of investment flows has been acknowledged theoretically (Cuervo-Cazurra *et al*, 2014) as well, paving the way for a separation of SOE investments from private investments in any analysis of the factors that lead to such investments in overseas countries. The political and economic history of the home country has been shown to modify OFDI patterns to benefit from ownership related advantages of different investors, especially from the emerging economies of China, India and South Africa. (Filatotchev *et al*, 2007). The investment decisions of some Indian SOEs like ONGC Videsh and GSPC cannot be separated from the political interests of developing alternative sources of oil, (beyond the Middle East countries) even though it may be economically disadvantageous.

Within these theories, this study attempts to segregate the pull factors of African host countries that drive Indian FDI led by non-SOEs. Early studies have focused on the qualitative aspects of the investing Indian firms. (Pal, 2012; Joseph 2019). Hansen (2007) provides an outline of the different phases of Indian ODFI in terms of policy frameworks. Pradhan (2007) and Nunkemp *et al*, (2012) confirm the market-seeking motive as a significant driver. Pradhan (2010) shows the significance of seeking strategic assets, along with a positive economic environment, commonality of language and the degree of openness of the host countries for Indian pharmaceutical firms as they decide to invest abroad.

Das and Banik (2015) use Indian firm data to confirm the significance of asset seeking, and efficiency seeking motives, but do not find support for market seeking motives. Buckley *et al*, (2017) uses mergers and acquisitions data on firms to explain the significant drivers of Indian investments in the world- country alliances, cultural distance, ratio of trade/GDP and number of patents. Nayyar (2018) brings the role of institutions into focus, and finds that Indian firms seek foreign destinations for investments in search for market size and strategic assets.

More specifically, a small list of studies consider Indian FDI into Africa; some aim to qualitatively compare the drivers of Indian and Chinese investments to Africa, (Quer *et al*, 2017, 2018; Pradhan, 2017). A smaller list of studies consider Indian FDI into Africa, as they seek to quantify the African bound Indian investments (Pal, 2012, Chakrabarthy and Ghosh, 2014) and their Africa specific drivers (Varma *et al*, 2020). This study aims to add to the latter group of studies.

2.1 Country alliances

Historical evidence on alliances between countries refers to them as a '*set of institutions and collaborative patterns that undergird a higher degree of global stability among sovereign states*' (Heritage Organization, 2019). Country alliances are routinely used as soft tools to encourage cooperation for social and economic objectives among member states. (Bennett *et al*, 2010; Callaghan *et al*, 2014) Such cooperation in the areas of trade, investment, technology /knowledge transfers reduce the economic and social disparity among members (Miskovic *et al*, 2014). Alliances are possible 'bridges' that lower the social, cultural and institutional distances between members, which lowers the costs of transacting business. The affinity among member states helps

to reduce business risks associated with foreign investments (Sutherland *et al* 2020). Lower transaction costs and reduced risks (perceived and actual) contribute as a country specific 'pull' factor (Dunning, 2006a). The State backing to such an alliance serves to mitigate the business risks that may stem from an environment of poor governance. For the purposes of this study, we use the Commonwealth alliance to verify our hypothesis.

H1: FDI flows from India are greater into African countries that are a member of the Commonwealth alliance.

2.2 Corruption

Corruption in its multiple manifestations takes center stage in Africa, as many of its countries are the most corrupt ones in the world. The sub-Saharan area in particular is the lowest ranked area by the Corruption Transparency Index for 2019. The interrelationships between fragility, crony capitalism, poor governance and under developed institutional frameworks allow corruption to manifest as 'state capture' which becomes entrenched as an institution, and threatens to discourage trade, investment and other forms of cooperation between the corrupt countries and potential investors and trading partner countries. A better control over corruption requires effective institutions that keep it in check, so that the former is reflective of the institutional environment. This accords corruption a place in the institution-based view in international business. This view treats corruption as 'more like sand than oil in the economic engine', (IMF, 2019) which leads to lower FDI, as firms' profitability is adversely affected by the non-productive ways (Cuervo-Cazurra, 2008) used to manage corruption so that businesses can continue.

The myriad manifestations of corruption also make it difficult to define it in an exhaustive manner. Zurakiwi & Habib (2010) provides an exhaustive list of all indicators available for corruption, and an overview of the empirical results that link corruption with FDI. The various forms of corruption, particularly in Africa, include political corruption and land-based corruption, which may or may not show up in visible forms. This makes it hard to find measurable ways of tracking corruption in impartial ways. In many countries, democracy is usurped by corruption through non-transparent political funding and vote capture using local groups (or local militia) so that low scores on democracy indices are partly reflective of higher corruption levels.

The effects of such 'systemic' corruption are intergenerational in nature, as reflected in the 'stolen futures' of African children. The multifaceted forms, effects and measurements of corruption is probably one reason why the empirical results on the effects of FDI are divergent. (Bailey, 2018). Some studies show corruption leads to lower FDI (Javorcik & Wei, 2009; Wei, 2000), due to higher entry and operational costs (Habib & Zurawicki, 2002; Kaufmann, 1997; Murphy, Shleifer, & Vishny, 1993); similar corruption levels in home and host countries can encourage FDI to the latter as the investing firm is used to operating in a similar corrupt environment at home (Zoogah,2018). Other arguments in favour of investments in more corrupt countries include the ease of managing bureaucracy in the host country (Aidt, 2003), and working around long winding procedures (Field, Sosa, & Wu, 2003) that allows for faster decisions that bode well for profits. Bribery and nepotism may allow faster and exclusive monopolistic access to State sponsored projects (Tanzi & Davoodi, 2000) for the investing firm.

H2: Indian FDI by non-SOEs is attracted to African countries with lower corruption levels.

2.3 Gross Domestic Product

GDP is most commonly used to hypothesise market seeking objectives by investing firms, (Asiedu, 2006) as higher GDP represents higher purchasing power and a larger market, both of which can be tapped to drive higher returns from investments. It is also a measure of a country's economic progress, making it an attractive destination for business and investment. A higher growth rate of GDP is a precursor to several changes in the economy that have the potential to increase business profitability. A higher share of the urban population, rise in per capita GDP, a shift in the workforce away from agriculture and into the manufacturing and service sector, are some examples of the changes led by GDP growth. This justifies the use of GDP, per capita GDP, growth rate of GDP, urbanization, as drivers of FDI flows in a singular or joint manner. (Kang and Jiang, 2012; Fung. & Garcia-Herrero, 2012; Das & Banik, 2015).

H3: African countries with higher GDP levels attract greater FDI flows from Indian non-SOEs.

2.4 Outward Development Assistance (ODA) flows

The DAC (Development Assistance Committee) in OECD has been a repository of information of ODA (or foreign aid) to developing countries since 1961. It suggests a distinction between various forms of aid-based interventions that ultimately lead to a better investment environment in recipient countries. The 'micro' interventions are more direct in encouraging trade openness, trade promotion and local businesses, while the 'meso' interventions are largely indirect in their intended effects on investments (largely through FDI) by creating the appropriate regulatory and institutional frameworks. Expectedly, the effect of ODA on FDI flows remains ambiguous due to the extensive range of options that qualify as ODA, and the multiple and nonlinear effects of these options. The issues of defining aid and the aggregation level used in empirical studies (Anh & Mai, 2012) is another possible cause of this ambiguity.

Some studies show that foreign aid promotes economic growth, reduces corruption, and improves human development, though the exact transfer mechanisms still remain unclear. (Aluko (2020); Yahyaoui & Bouchoucha (2021) find a positive effect of ODA on FDI into African countries, mediated by better financial systems and institutional quality, which become indirect variables that pull in FDI. For the SSA region, Sarpong and Bein (2021) report a significant negative effect of ODA on the Human Development Index. In Nigeria, Adekunle *et al,* (2019) show a long-term positive relationship between foreign aid and growth, though the causation is missing, while Appiah-Konadu *et al,* (2016) find an opposite negative effect of aid for Ghana.

The direct effects of aid on FDI flows are more difficult to quantify, as aid possibly works through multiple channels (Anyanwu, 2014), as evidenced in macro variables that impact on FDI. This coincides with the argument that aid channels work by exerting a greater effect on the economy as a whole, rather than targeted sectors alone. The lack of direct impacts of ODA as a 'pull' factor for incoming FDI inflows provides ambiguous results on a direct causation link. While bilateral ODA is shown to positively cause FDI for selected African countries (Yasin, 2005) in a statistically significant manner, the significance is missing for multilateral aid. The empirical effects of ODA of FDI remain context and country specific. (Kimura and Todo 2010; Harms and Lutz, 2006).

H4: African countries that receive greater inflows of net ODA from the world are hypothesised to receive greater FDI from non-SOE Indian enterprises.

3. Data and Model Specification

3.1 Data

This study aggregates the Reserve Bank of India (RBI) monthly data on the value of 'overseas direct investments' by Indian firms in annual terms. We choose 2008-18 as the time period as RBI began its data publication only in 2008. By late 2019 Covid hit the world, and impacted on all the economies in myriad ways, which could skew our results. We have four main variables to test our hypotheses. The Commonwealth alliance is used as a proxy for African countries' alliance with India. The data on corruption is sourced from Corruption Perception index, which is based on data collated by the Transparency Organisation. It ranks 180 countries on the basis of scores for '*perceived levels of public sector corruption, according to experts and business people'*. An environment that is corrupt shows up as a low score, on a scale of 0 to 100. GDP and foreign aid data is from World Development indicators.

We employ seven control variables to capture the influence of host specific features on FDI flows. A negative sign of the coefficient for geographical distance is expected to reflect the higher costs of transacting with a farther off host country. Urbanisation is used to reflect on the changing economic structure, that is expected to raise incomes, which provide enlarged markets with more purchasing power, so that businesses can produce for these markets, inviting FDI. Inflation and exchange rate are reflective of the management of the economy that manifests itself in economic stability. Inflation puts investments at risk by reducing their real value, leading to an expected negative sign. The resource richness of the host countries is captured by the use of dummy variables using the African Economic Outlook 2020 classification (African Development Bank Group, 2020). A dummy variable scores over alternative variables by making all oil-exporting countries at par, rather than using the contribution of export volumes to GDP quantitatively. Greater trade openness is expected to make it easier for the investing firm to seek trade opportunities.

3.2 Model Specification

We posit a log linear model with the panel data spread over 2008-2018. Similar models are used by Asiedu (2006), Wako (2018) and Shan *et al*, (2018).

$$log\ y_{ht} = \alpha + \beta_1 CWC_h + \beta_2\, corr_{ht} + \beta_4\, GDP_{ht} + \beta_5 netODAflows_{ht} + \beta_6 oilX_h + \beta_7\, resourceX_h + \beta_8 urban_{\,ht} + \beta_9 exrate_{ht} + \beta_{10}\, inf_{ht} + \beta_{11} tradeopen_{ht} + \beta_{12} GD_h + u_{ht}$$

The subscript t denotes the year (2008 - 2018), h denotes the host country, and β_1, to β_{11} are the usual regression coefficients. The dependent variable, log y, is the log of value of annual FDI made by Indian non-SOEs in Africa. The explanatory variables that pertain to host country include *corr*, which is an index value for corruption, *GDP* is gross domestic product, *urban* is the level of urbanisation, *exrate* is exchange, *inf* is annual inflation rate, tradeopen is the sum of exports and imports as a % of GDP, *netODAflows* is the net foreign aid received, and *GD* is geographical distance between the capitals of India and host country. CWC (= 1 for member countries) , oilX (

= 1 for oil exporters) and resourceX (= 1 for resource exporter countries) are the dummy variables for CWC alliance, oil and resource exporter countries, and are time invariant. μ is the error term that is assumed to be normally distributed to allow a regression analysis. The sources of all variables are described in table 1.

4. Empirical Results and Discussion

4.1 Descriptive Statistics and Correlation Matrix.

Table 2 provides descriptive statistics. It is clear that the set of African countries in our data show considerable variation in certain parameters- inflation and exchange rate are worth a mention. Urbanisation varies from a low of 13 percent to a high of 87 percent. This shows the range of differences across African countries in terms of macroeconomic variables that can affect FDI, that makes our database more representative and inclusive of Africa as a destination for Indian FDI. Table 3 provides the correlation matrix among variables. There is little evidence of multicollinearity, as the range for correlation coefficients is positive value of 0.49 to a negative value of 0.01. These values are much below 0.7 which is considered to be a sign of serious multicollinearity that merits an econometric reformulation of the model.

Table 1: Description of independent and dependent variables

Variable	Brief Description	Data Source
y	Value of non-SOE led FDI from India to Africa annually.	https://rbi.org.in/Scripts/Data_Overseas_Investment.aspx
Membership of CWC	=1 for host country that is part of CWC, and = 0 for non-members	www.commonwealth.org
Corruption	A score given to a host country between 0=100;lower is score lesser is corruption.	Transparency Organization
GDP	Gross Domestic Product of host country	World Development Indicators
Net ODA flows	Government aid that aims at economic development and welfare of recipient country.	World Development Indicators
Geographical distance(GD)	The distance between capitals of the home (India) and host country	https://geobytes.com/
Urban	The % of population in host country that lives in urban areas.	World Development Indicators
Exchange rate	Host country official annual exchange rate against dollar	World Development Indicators
Inflation	Annual growth rate of the GDP implicit deflator	World Development Indicators
oilX	=1 for an oil exporter country and 0 for others	African Economic Outlook 2020
resourceX	= 1 for a resource exporter country and 0 for others.	African Economic Outlook 2020
Tradeopen	The share of exports and imports in GDP of the host country.	World Development Indicators

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
1.Log of non-SOE led FDI from India	.154	2.26	-6.21	4.91
2.Membership of CWC	.429	0.49	0	1
3.Corruption	3.14	1.04	0	6.6
4.GDP	5.32e+10	9.56e+10	1.23e+09	5.68e+11
5.Net ODA flows	1.02e+10	9.00e+08	7610000	5.51e+096
6.Geographical distance	7350.5	1492.02	4432.62	9744.44
7.Urban	42.53	17.79	13.892	89.37
8.Exchange rate	1.7e +07	3.38e+08	1.06	6.72e+09
9.Inflation	7.1097	7.1383	-3.7043	63.292
10.oilX	0.216	0.41	0	1
11. resourceX	0.405	0.49	0	1
12. Tradeopen	70.31	28.6	19.1008	179.1209

Table 3: Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1.Log of non-SOE led FDI from India	1.00											
2.Membership of CWC	0.26	1.00										
3.Corruption	0.19	0.22	1.00									
4.GDP	0.41	0.18	0.03	1.00								
5.Net ODA flows	0.38	0.18	-0.18	0.27	1.00							
6.Geographical distance	-0.09	0.1	0.2	0.04	-0.42	1.00						
7.Urban	0.17	-0.2	0.23	0.29	-0.4	0.4	1.00					
8.Exchange rate	-0.24	-0.15	-0.23	-0.22	-0.14	0.18	-0.24	1.00				
9.Inflation	0.008	0.09	-0.24	0.08	0.16	-0.26	-0.21	0.06	1.00			
10.oilX	-0.01	-0.27	-0.25	0.48	-0.07	-0.20	0.4	-0.16	-0.01	1.00		
11. resourceX	0.05	0.21	0.22	-0.07	-0.16	0.49	0.12	0.16	0.08	-0.38	1.00	
12. Tradeopen	-0.11	-0.06	0.16	-0.33	-0.43	0.41	0.29	0.05	-0.15	-0.09	0.21	1.00

4.2 Model Estimation and Results Discussion.

Given the nature of our data spread over 11 years across multiple countries, we used the Hausman test to choose between fixed effects and random effects regression model (Amini *et al*, 2012). The value of the chi-square was found to be statistically insignificant, implying that a random effects model was favoured. This model saves of precious degrees of freedom and gives a more efficient estimator of the coefficients. Also, the estimation for a random effects model does not wipe out the time invariant variables. Using STATA, a random effects estimation was done to arrive at the results as shown in table 4. Model A1 uses only the hypothesized variables, while model B1 includes control variables as well. It is clear that membership of CWC alliance increases the attractiveness of the host country; our hypothesis (H1) is supported in the absence and presence of control variables. The role of higher corruption in discouraging FDI flows (H2) is partly supported in model A1, but not in model B1 where corruption becomes insignificant. The results suggest that in the presence of control variables, which purportedly influence FDI flows in indirect and 'residual' ways, the corruption levels cease to be a significant driver of FDI flows.

The role of GDP (H3) and volumes of foreign aid (H4) in driving FDI flows is confirmed. This may explain why countries like Nigeria, Egypt and South Africa (the top 3 countries by GDP in Africa) take up 35 percent of total FDI flows by non-SOEs. GDP acts like a 'value addition' in the list of factors that attract FDI, as its partial effect is small, as seen in the low value of the coefficient value, but it is a significant explanatory variable. A similar significant but low coefficient value is found for ODA flows. These flows work in direct and indirect ways to fill the gaps in the recipient country's trade, investment, human capital, infrastructure sector. The reduction of these gaps makes the country a more attractive destination for FDI from India.

The control variables used in model B1 are mostly significant, except for exchange rate, and the dummy for resource exporters. Geographical distance is significant so that countries that are farther away receive lower FDI from India. The ratio of urban population to total population is also a positive contributor to attractiveness of the host country. Inflation is also significant and a lower inflation signals better economic management and stability, which brings in FDI. Trade openness is significant in encouraging higher FDI inflows. The dummy variable for an oil exporter country is significant. It shows that non-SOEs prefer to invest in non-oil exporter countries, which is against the idea that Indian FDI seeks oil rich countries in Africa as part of asset seeking motives. The case for a resource exporter country is a little different as its status is insignificant in driving FDI flows.

To justify the segregation of SOEs and non-SOEs we use the total FDI by all Indian enterprises, instead of FDI investments from non-SOEs only (as in model A1) as the dependent variable. The resulting model A2 shows the insignificance of all hypothesised variables. The CWC alliance, corruption level, GDP and volume of net ODA flows turn out to be insignificant in explaining the drivers of FDI flows from all Indian enterprises. The causative logic, seen in terms of the signs of the coefficients remains the same for model A1 and A2, but the variables lose statistical significance in model A2. It is relevant to note that out of total FDI from India to the selected African countries, the share of SOE investments is predominant at 69 percent. This lends credence to the ideas that the factors that impact on the choice of destination of Indian investments differ according to ownership. Bass and Chakrabarty (2014) are particularly relevant to Indian case, with

their idea that SOE investments are more about securing access to energy resources, which are vital for the home country. The dominance of Oil Videsh Company in Indian SOEs, which invested 80 percent out of the total SOE investment of 3770 million, lends support to the theory of SOEs seeking vital energy resources through foreign investments. The perception that State ownership of investments is more legitimate may lead SOEs to invest in countries that are typically not preferred by non-SOEs at all. (Cuervo-Cazurra *et al*, 2014). These results support the need for segregation of Indian enterprises that invest in Africa on the basis of ownership of the enterprise in any study that attempts to ascertain the drivers of FDI flows to the continent for policy purposes.

Table 4: Results of Estimated Models

	A1	**B1**	**A2**
Dependent Variable	**Non SOE FDI Value**	**Non SOE FDI Value**	**Total FDI Value**
Independent Variables	Coef.(SE)	Coef.(SE)	Coef.(SE)
Membership of CWC	1.01*	1.124**	0.674
	(0.473)	(.511)	(0.511)
Corruption	0.385*	0.062***	0.384
	(.195)	(0.209)	(0.209)
GDP	6.9e-12***	9.26e-12***	7.25e-12***
	(0.0)	(0.0)	(0.0)
Net ODA flows	3.6e-10***	3.67e-10*	5.14e-10***
	(0.0)	(0.0)	(0.0)
Geographical distance		-0.005***	
		(.0002)	
Urban		0.043***	
		(0.016)	
Exchange rate		0.00005	
		(0.0001)	
Inflation		-0.032	
		(0.022)	
oilX		-2.047***	
		(0.795)	
resourceX		-0.1702	
		(0.568)	
Tradeopen		0.02***	
		(0.007)	
Rho	0.403	0.37	0.246
R Square	0.29	0.405	0.38

This table presents the random effect (models A1, B1, A2) model estimation results. The *p*-values are indicated by *** (significant at 1%), ** (significant at 5%) and * (significant at 10%).

5. Conclusion and Policy implication.

This study confirms that the membership of an alliance encourages FDI to member African countries. This advantage of membership can be captured by countries that seek Indian investments to boost growth. India's commitment to Africa is rooted in historical relations; in contemporary times, it takes the form of political, social and economic engagement that enhances mutual interest of trade and investment. An alliance like CWC provides newer, but easier routes for greater engagement, which makes member African countries better placed to attract Indian investments. The results add to the large literature on the relation between corruption levels and FDI in any country. While theoretical arguments are clear on the pathways that link corruption with choice of host countries, mode of FDI, and other aspects of FDI, empirical studies reveal ambiguous results. It has even been suggested with evidence from Chinese SOE investments that investors tend to invest in host countries with similar levels of corruption as the home country (De Beule & Duanmu, 2012). Corruption in the home country becomes a 'push 'factor' in explaining FDI flows from a home country. This argument may explain the insignificance of corruption in host African countries in explaining Indian investments. Corruption in Africa does not deter Indian investments significantly. India shares its score in the Corruption Perception Index with Ghana (the 'beacon of democracy' in Africa) and Morocco for 2019. India's own raking has been worsening in the last 5 years, since 2015. This study confirms the market seeking motive of internationalization, as GDP is shown to be a significant explanatory variable that 'causes' investments into host countries with larger GDP. This is exemplified by South Africa, which corners 26 percent of all Indian FDI flows, and it is the one of the three top economies of Africa by GDP. The role of ODA (in attracting FDI flows) is confirmed by this study. Since India is not on this list, its own forms of development assistance to Africa are not a part of this study and do not impact our analysis. Our results reinforce the general view about the positive contribution of development assistance at a broad level.

This study can be extended in multiple meaningful directions. First, this study aggregates investments by different enterprises on an annual basis, which may miss firm level factors that influence investment decisions. The role of membership of a business group can be important as the majority of investing firms belong to the same business group; 10 business groups account for half of the volume of investments made by Indian non-SOEs in Africa. Second, a separation of investments by SOEs and non-SOEs can shed light on the differences in the drivers of such investments. Third, since the number of investments/transactions (count data) by SOEs is small in comparison with non-SOE investments, while the volume of investments by SOEs is much larger, there may be a case for the use of count data. Lastly, the role of historically shared commonalities between India and Africa, cultural affinity through a large diaspora and the role of political engagement may be explored through a case study approach, as these aspects work in indirect ways to promote business that are difficult to quantify for any econometric exercise.

Dr Ankur Bhatnagar is an Associate Professor of Economics at the University of Delhi. She is an alumnus of the Delhi School of Economics, where she completed her doctoral studies on the setting of taxes in India. She has co-edited a book entitled 'Analytical Perspectives on the Indian Economy'. Her interests include international business, Africa and behavioral economics.

References

Adekunle, I. A., Ogunade, A. O., Ayantola, A. N. & Alabi, M. O., (2019). 'AIDS Effectiveness and Developmental Outcomes in Nigeria', *African Journal of Economic Review*, vol. 7(1), pp. 206-218.

African Development Bank Group, African Economic Outlook, (2020), available at https://www.afdb.org/en/documents/african-economic-outlook-2020. (Accessed on 23 December 2020)

Aidt, T. S., (2003). 'Economic analysis of corruption: a survey', *Economic Journal*, 113, pp. 632-648.

Aluko, O.A., (2020). 'The foreign aid–foreign direct investment relationship in Africa: The mediating role of institutional quality and financial development'. *Economic affairs,*40, pp. 77-84.

Amini, S., Delgado, M.S., Henderson, D.J. and Parmeter, C.F. (2012), 'Fixed vs Random: The Hausman Test Four Decades Later', Baltagi, B.H., Carter Hill, R., Newey, W.K. and White, H.L. (Ed.) *Essays in Honor of Jerry Hausman* (*Advances in Econometrics, Vol. 29*), Emerald Group Publishing Limited, Bingley, pp. 479-513

Anh, T. & Mai, V., (2012). 'On the Impacts of ODA on FDI: Does Composition of FDI Matter?' Evidence from ASEAN Countries. SECO / WTI Academic Cooperation Project Working Paper Series 2012/09.

Anyanwu, J.C., (2014). 'Factors Affecting Economic Growth in Africa: Are There any Lessons from China?.' *African Development Review*, 26: pp. 468-493.

Appiah-Konadu, P., Shitsi, F., Abokyi, E., and Twerefou, D., (2016). 'The Effect of Foreign Aid on Economic Growth in Ghana'. *African Journal of Economic Review*, 4, pp. 248-261.

Asiedu, E., (2006). 'Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability'. *The World Economy*, 29, pp. 63-78.

Bailey, N., (2018). 'Exploring the relationship between institutional factors and FDI attractiveness: a meta-analytic review'. *International Business Review*, 27, pp. 139-148.

Bass, A.E., & Chakrabarty, S., (2014). 'Resource security: Competition for global resources, strategic intent, and governments as owners'. *Journal of International Business Studies*, 45(8), pp. 961-979.

Bennett, J., Chappell, P., Reed, H. & Sriskandarajah, D., (2010). *Trading Places: The 'Commonwealth Effect' Revisited*, London: Royal Commonwealth Society

Beri, R., ed. (2014) *India and Africa: Enhancing mutual Engagement,* Institute for Defence studies and analysis, Pentagon Press, Chapter 10.

Buckley, P.J, Munjal, S., Enderwick, P., & Forsans, N., (2017). 'The role of country alliances in reducing the transaction costs of internationalisation: evidence from Indian multinational enterprises'. *Cambridge Journal of Economics*, 41, pp. 807-819.

Buckley, P.J., Forsans, N., & Munjal, S., (2012). 'Host–home country linkages and host–home country specific advantages as determinants of foreign acquisitions by Indian firms'. *International Business Review,* 21(5), pp. 878-891.

Buckley, P.J., Yu, P., Liu, Q., Munjal, S., & Tao, P., (2016). 'The Institutional Influence on the Location Strategies of Multinational Enterprises from Emerging Economies: Evidence from China's Cross-border Mergers and Acquisitions'. *Management and Organization Review, 12*(3), pp. 425-448.

Callaghan, M., Ghate, C., Pickford, S. & Rathinam, F., (ed) (2014). *Global Cooperation among G20 Countries: Responding to the Crisis and Restoring Growth*, New Delhi: Springer

Chakrabarti, S. & Ghosh, I., (2014). 'FDI in Africa: A Comparison of the Indian and Chinese Experience'. *Procedia - Social and Behavioral Sciences*, 157, pp. 340-352.

Cuervo-Cazurra, A., (2008). 'The multinationalization of developing country MNEs: the case of multilatinas'. *Journal of International Management,* 14(2), pp 138–154.

Cuervo-Cazurra, A., Inkpen, A., & Musacchio, A., (2014). 'Governments as owners: State-owned multinational companies'. *Journal of International Business Studies*, 45, pp. 919-928.

Das, K. C., & Banik, N., (2015).'What motivates Indian firms to invest abroad?'. *International Journal of Commerce and Management*, 25(3), pp. 330 -342.

De Beule, F., & Duanmu, J. L., (2012). 'Locational determinants of internationalization: a firm-level analysis of Chinese and Indian acquisitions'. *European Management Journal*, 30(3), pp. 264- 280.

Dunning, J.H., (1998). 'Location and the multinational enterprise: A neglected factor?'. *Journal of International Business Studies*, 29, pp. 45-56.

Field, A., Sosa, L., & Wu, X., (2003). *Impacts of endogenous bribes on foreign direct investment*. Unpublished Manuscript, University of North Carolina at Chapel Hill.

Filatotchev, I., Isachenkova, N., & Mickiewicz, T., (2007). 'Corporate governance, Managers independence, exporting, and performance of firms in transition economies'. *Emerging Markets Finance and Trade,* 43, pp. 62-78.

Fung, K.C., & Garcia-Herroro, A., (2012). 'Foreign Direct Investment outflows from China and India'. *China Economic Policy Review,* 1(1).

Habib, M., & Zurawicki, L., (2002). 'Corruption and foreign direct investment'. *Journal of International Business Studies,* 33(2), pp. 291-305.

Hansen, M., (2007). 'Outward foreign direct investment from India: Theory and evidence'. *Working Paper* [8], Centre for Business and Development Studies, Copenhagen Business School, Denmark.

Harms, P. and Lutz, M., (2006). 'Aid, governance, and private foreign investment'. *Economic Journal,* 116(513), pp. 773-782.

Heritage Organisation (2019). The Competitive Advantages and Risks of Alliances. Available at https://www.heritage.org/military-strength/topical-essays/the-competitive-advantages-and-risks-alliances. (Accessed 30 November 2020)

IMF (2019). More sand than Oil, Available at https://www.elibrary.imf.org/view/IMF022/26082-9781498316040/26082-9781498316040/26082-9781498316040_A010.xml. (Accessed 17 December 2020)

Ismahene, Y., & Bouchoucha, N., (2021). 'The long-run relationship between ODA, growth and governance: An application of FMOLS and DOLS approaches'. *African Development Review, 33,* pp 38-54.

Javorcik, B., & Wei, S., (2009). 'Corruption and cross-border investment in emerging markets: Firm-level evidence'. *Journal of International Money and Finance,* 28(4), pp. 605-615.

Joseph, R.K., (2019). 'Outward FDI from India: Review of Policy and Emerging Trends', *Institute for Studies in Industrial Development, report no 214.*

Kang, Y. & Jiang, F., (2012). 'FDI location choice of Chinese multinationals in East and Southeast Asia: Traditional economic factors and institutional perspective'. *Journal of World Business,* 47(1), pp. 45-53.

Kaufmann, D., (1997). 'Corruption: The Facts'. *Foreign Policy,* 107 (Summer), pp. 114-127.

Kimura, H. & Todo, Y., (2010). ''Is Foreign Aid a Vanguard of Foreign Direct Investment? A Gravity-Equation Approach'. *World Development,* 38(4), pp. 482-497.

Kolstad, V. & Wiig, A.,(2012). 'What determines Chinese outward FDI?'. *Journal of World Business,* 47(1), pp. 26-34.

Li, F., and D. Z. Ding., (2013). 'The Effect of Institutional Isomorphic Pressure on the Internationalization of Firms in an Emerging Economy: Evidence from China'. *Asia Pacific Business Review,* 19(4), pp. 506-521.

Miskovic, N., Fischer-Tiné, H. & Boskovska, N., (2014). *The Non-Aligned Movement and the Cold War*: Delhi-Bandung-Belgrade, London and New York, Routledge.

Murphy, K. M., Shleifer, A., & Vishny, R. W.,(1993). 'Why is rent-seeking so costly to growth?' *American Economic Review,* 83(2), pp. 409-419.

Nayyar, R., (2018). 'Advancing research on the determinants of Indian MNEs: the role of sub-national institutions'. *International Journal of Emerging Markets,* 13(3), pp 536-549.

Nunnenkamp P, Andrés M.S., Vadlamannati, K.C., & Waldkirch, A., (2012). 'What Drives India's Outward FDI*? ' South Asian Journal of Macroeconomics and Public Finance,* 1(2), pp. 245-257.

Paul, A., (2014). 'Indian Foreign Direct Investment: A Way to Africa'. *Procedia - Social and Behavioral Sciences,* 157, pp. 183-195.

Pradhan, J. P., (2007). 'Trends and Patterns of Overseas Acquisitions by Indian Multinationals'. *MPRA Paper 12404,* University Library of Munich, Germany.

Pradhan, J. P.,(2017). ''Indian Outward FDI: A review of recent developments'. *Transnational Corporations,* 24(2), pp. 43-55.

Pradhan, J.P., (2010). 'Strategic asset-seeking activities of emerging multinationals: Perspectives on foreign acquisitions by Indian pharmaceutical MNEs'. *Organizations and Markets in Emerging Economies,* 1, pp. 9-19.

Quer, D., Claver, E., & Rienda, L., (2017). 'Cultural distance, political risk and location decisions of emerging-market multinationals: a comparison between Chinese and Indian firms'. *Journal of the Asia Pacific Economy*, 22(4), pp 587-599.

Quer, D., Claver, E., & Rienda, L., (2018). 'Institutional Distance And Location Choice: New Empirical Evidence From Emerging-Market MNEs'. *Distance in International Business: Concept, cost and value,* Emerald Publishing. Chapter 10

Ramasamy, B., Yeung, M. & Laforet, S., (2012). 'China's Outward Foreign Direct Investment: Location Choice and Firm Ownership'. *Journal of World Business,* 47(1), pp.17-27.

Sarpong, S.W., & Bein, M. A., (2021). 'Effects of good governance, sustainable development and aid on quality of life: Evidence from sub-saharan Africa' *African Development Review, ,* 33, 1, pp 25-37,

Shan. S, Zhibin. L, Yulei. L & Yan, Z. (2018). 'Attracting Chinese FDI in Africa: the role of natural resources, market size and institutional quality', *Critical Perspectives on International Business,* 14(2/3): pp 139-153.

Sutherland, D., Anderson, J., Bailey, N., & Alon, I., (2020). 'Policy, institutional fragility, and Chinese outward foreign direct investment: an empirical examination of the belt and road initiative'. *Journal of International Business Policy*, 3, pp 49-58.

Tanzi, V., & Davoodi, H., (2000). *The political economy of corruption*. Abingdon, UK: Routledge

Transparency International (2019). Corruption Perceptions Index. Available at https://www.transparency.org/en/cpi/2019#. (Accessed 8 November 2020).

Varma, S., Bhatnagar. A., Santra, S., & Soni. A., (2020). 'Drivers of Indian FDI to Africa – an initial exploratory analysis' *Transnational Corporations Review,* 12(3), pp 304-319.

Wako, H.A. (2018). 'Foreign direct investment in sub-Saharan Africa: Beyond its growth effect', *Working Paper No 13, UNU – Merit*.

Wei, S., (2000). 'How Taxing is Corruption on International Investors? *The Review of Economics and Statistics,* 82 (1), pp 1-13.

Yahyaoui, I. & Bouchoucha, N., (2020). 'The long-run relationship between ODA, growth and governance: An application of FMOLS and DOLS approaches'. *African Development Review ,* 3(1), pp 33-54.

Yasin, M., (2005). 'Official Development Assistance and Foreign Direct Investment Flows to Sub-Saharan Africa'. *African Development Review,* 17, 23-40.

Zoogah, D.B., (2018), 'Natural resource endowment and firm performance: The moderating role of institutional endowment'. *Global Strategy Journal,* 8, 578- 590.

Zurawicki, L. & Habib, M., (2010). 'Corruption And Foreign Direct Investment: What Have We Learned?'. *International Business & Economics Research Journal,* 9(7).