


RESEARCH ARTICLE

# Location choice and Indian outward foreign direct investment: institutional thresholds and differentiating between institutional quality and institutional distance

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## Abstract

Institutions matter as regards foreign location investment decisions, but how they matter and in what ways, is still unsettled. We differentiate between absolute and relative institutional effects on both location choice and on the size of the FDI and do so by examining India's outward FDI flows between 2008 and 2020. We find that absolute and relative institutional measures have different effects, and these are noticeable at different stages. We show that the quality of institutions affects location choice, but once they have made that decision then the scale of the investment is impacted by institutional threshold effects and institutional distance, and we explain why this could be the case. We provide further nuance to studies on the asymmetrical effects of institutions on outward FDI. We provide empirical evidence that the effects of absolute institutions matter more where host countries lie at the lower end of the institutional profile distribution. Likewise with institutional distance—it might not be the direction of the difference that matters so much as where the host country is located along the institutional profile distribution. This has substantial consequences from both a managerial and a policy perspective.

**Keywords:** India; institutional distance; institutional threshold effects; locational choice; outward foreign direct investment

## 1. Introduction

Institutions matter as regards foreign location investment decisions, but how they matter and in what ways, is still unsettled (Aguilera and Grøgaard, 2019; Sen and Sinha, 2017). Increasing calls have been made for institutional research to better distinguish between the effects of institutional profiles (institutional quality) versus institutional distance on foreign direct investment (FDI) flows (Cuervo-Cazurra *et al.*, 2019; van Hoorn and Maseland, 2016). Whilst it is intuitive that locations with good institutions would be more attractive to foreign investment (Agoba *et al.*, 2020; Luo *et al.*, 2019; Meyer and Peng, 2016), empirical evidence has shown mixed results (Bailey, 2018; Bessonova and Gonchar, 2015; Buckley *et al.*, 2018). Likewise, when it comes to institutional distance, some studies have maintained that FDI flows are deterred by institutional distance (Cezar and Escobar, 2015; Zhou and Guillen, 2016), and others that they are likely to go to institutionally distant locations (Kang and Jiang, 2012; Pisani and Ricart, 2018).

The inconsistent empirical findings suggest a need for studies to better understand how institutions affect FDI decisions. More specifically, institutional research needs to *distinguish* between the effects of institutional quality/profiles versus institutional distance on FDI decisions (Cuervo-Cazurra *et al.*, 2019). The distinction is of academic as well as managerial significance as these effects pose different managerial consequences—institutional distance focuses on bridging the institutional divide, and

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institutional quality on lessening the exposure to unfavorable host location institutional milieus. Accordingly, in this paper we disentangle the effects of institutional quality and institutional distance on two important FDI decisions—location choice (*where* to invest) and scale (*how much* to invest). Furthermore, we examine whether institutional threshold effects (i.e., the position of the countries on the institutional profile distribution—where they lie) are evident to get a better understanding of the effects of both institutional quality and distance on FDI.

Using a two-stage Heckman model, we analyze location and scale decisions of India's outward FDI (OFDI) flows between 2008 and 2020. We find that absolute (institutional quality) and relative institutions (institutional distance) have different effects, and these are noticeable at different stages in the OFDI decision making. This is significant because if there is a conflation of institutional quality and distance then they should matter similarly i.e., in terms of location choice and scale. Instead, we show that Indian multinational enterprises (MNEs) focus on the institutional quality in choosing their host destinations, but once they have made that decision then the scale of the investment is impacted by institutional threshold effects and institutional distance but asymmetrically, and we explain why this could be the case.

We make several contributions. First, by differentiating between institutional quality and institutional distance and capturing the two stages of FDI decision-making, we isolate the distinct institutional effects, thereby providing a more granular perspective on *how institutions matter*. Second, by selecting a reference country from the middle of the institutional profile as our empirical context, we provide a mechanism through which to disentangle institutional quality and distance effects, which has increasingly been raised as a concern (Brouthers *et al.*, 2016; Harzing and Pudelko, 2016). Since institutional distance is the absolute difference between institutional profiles (institutional quality), the direct proportionality between distance and profile that characterizes institutional distance computed from the tails of the distributional profiles (i.e., for countries that are either institutionally highly developed or underdeveloped), disappears when selecting a reference country from the middle (Van Hoorn and Maseland, 2016). Third, we provide further nuance to studies on the asymmetrical effects of institutions on OFDI location choice (see Tang and Buckley, 2022). Not only do we examine the asymmetric effects of institutional distance on the two stages of an FDI decision, but we also provide empirical evidence that the effects of absolute institutions/institutional quality matter more where host countries lie at the lower end of the institutional profile distribution. This has considerable consequences from both a managerial and a policy perspective which we unpack.

The paper is structured as follows. The next section provides the theoretical background to our study and the development of our hypotheses. This is followed by the methodology and findings. Our final section discusses the theoretical and managerial implications, as well as areas for future research.

## 2. Theoretical background and hypotheses development

### *Absolute institutions and FDI*

Institutions are the 'rules of the game' that are 'humanly devised constraints that structure human interaction' (North, 1990: 3) and affect the underlying transaction costs of economic activity. By determining the economic and political environment of a country, institutions provide, amongst other things, potential foreign investors with assurances regarding the protection of property rights, and the necessary legal and regulatory frameworks, and are fundamental to discerning between different possible host country investment options. A favorable institutional setting inspires investor confidence and lowers the risk of doing business there by creating a more reliable business climate.

Dunning (1998) reignited interest in the locational dimensions of MNE activities. A direct connection exists between the importance of institutions and the location-based advantages in the eclectic OLI (ownership, location, internalization advantages) associated with FDI. Institutions may change the parameters of firm behavior that are feasible in a locale (Dunning and Lundan, 2008). Furthermore, within the eclectic paradigm the interaction between location advantages and ownership advantages are of paramount importance (Cantwell, 2009). Hence, the motivation to internationalize

depends upon the existence or non-existence of location advantages, as the MNE seeks to exploit its firm specific advantages in combination with location specific assets (Cuervo-Cazurra and Narula, 2015). When making FDI related decisions, MNEs consider the costs and the risks associated with investing in possible host countries and the institutional environment is a critical element of this consideration (Fedderke *et al.*, 2023).

Understanding how MNEs make FDI decisions requires an appreciation of both the motives for internationalization as well as the factors that make a host country attractive, including its institutional milieu (Gupta, 2017; Kim and Aguilera, 2016; Nielsen *et al.*, 2017). The absolute view of institutions evaluates *the quality of institutions* relative to some predetermined criteria and standards. Within empirical economics often the quality of institutions is assessed against these preset benchmarks and institutions in one country are juxtaposed to that of another country e.g., comparing Albania's institutions to that of Switzerland. This comparison usually relies on institutional measures that capture the ease of doing business in a country in terms of costs and procedures, or the World Governance Indicators (WGI) (both produced by the World Bank), or the Heritage Foundation's measures of economic freedom, or other similar global competitiveness measures (Mullings, 2018). The premise is that better quality institutions make the rules of the game more transparent and consistent and thereby mitigate potential risks and lower the transaction costs of doing business in the host locations, whilst weaker institutions would see the reverse (Subramanian, 2007). In a similar vein, Higgs (1997) makes the point that investors dislike institutional environments that result in the presence of 'regime uncertainty'. He argues that unpredictable policy environments and government actions (threats) that weaken private property rights and adversely affect the expected return on investments will reduce MNEs' direct investments in those locations (Higgs, 1997; Krol, 2018).

Various empirical studies have confirmed that good quality, predictable institutions are attractive to foreign investors (Bahoo *et al.*, 2023; Bailey, 2018; Blonigen, 2005; Contractor *et al.*, 2020). We would therefore expect better absolute institutions (institutional quality) to be more desirable in terms of foreign investment locations and in terms of the scale of the investment that these locales attract. We therefore posit the following hypotheses:

*Hypothesis 1a: Absolute institutions (institutional quality) matter for OFDI location choice (i.e., stage 1 of the FDI decision); such that there is a positive association between the quality of institutions and location choice.*

*Hypothesis 1b: Absolute institutions (institutional quality) matter for the scale of investment (i.e., stage 2 of the FDI decision); such that there is a positive relationship between the host's institutional quality and the volume of OFDI.*

#### *Institutional thresholds and the asymmetric effect of absolute institutions on FDI*

Whilst the quality of institutions argument implies that improved quality is better, it raises the question of whether an equivalent improvement in the quality of institutions has symmetrical effects in terms of both location choice and the volume of foreign investment. Does an improvement in the quality of institutions have the same impact irrespective of where the host location lies along the distribution of country institutional profiles? Would an improvement in institutional quality in the bottom quartile of institutional distributions (i.e., below a certain threshold) have the same influence as an equivalent improvement in the top quartile (i.e., above a certain threshold)? An example might be useful to illustrate the underlying premise being raised. A 20% improvement in institutional quality as measured by a composite of World Governance Indicators (elaborated further in the methodology) leads to a move within the bottom quartile from Nigeria to Algeria, or elsewhere within the lower half from Malawi to Morocco. A 20% improvement in the top quartile moves one from France to somewhere between the United Kingdom and Japan, or a 10% improvement from France to Belgium, or from the Netherlands to Finland. Intuitively these examples suggest that institutional improvements may be subject to diminishing returns. A 20% improvement within the top quartile is likely to

have less impact on both the location decision and on the scale of the actual investment, than the same improvement in the bottom quartile or the lower half of the institutional distribution. We put forward the following hypotheses:

*Hypothesis 1c: Absolute institutions (institutional quality) matter more when OFDI location choice is made amongst host countries that have weaker institutional profiles; such that the positive effect of a host country's institutional quality on location choice is greater (smaller) for those that lie at the lower (upper) end of the institutional profile distribution.*

*Hypothesis 1d: The positive effect of absolute institutions (institutional quality) on the scale of investment is likely to be greater (smaller) for host countries that lie at the lower (upper) end of the institutional profile distribution.*

### **Relative institutions and FDI**

Given that MNE activity is defined by the conduct of business across borders, it has been stated that 'essentially, international management is management of distance' (Zaheer *et al.*, 2012: 19). Whilst distance has various dimensions including cultural, geographic, and economic, our focus, in line with the objectives of this study, is limited to the institutional aspects. Adopting a relative approach to institutions sees countries analyzed in terms of differences or distances between the home and host institutional environments. MNEs are contextually embedded in institutional environments and, as such, doing business across borders exposes these firms to manifold and distinct institutional settings that present unique complexities and risks (Kostova *et al.*, 2020).

The core premise of institutional distance is that it leads to higher costs of doing international business because the institutional differences impose additional challenges. Therefore, when MNEs enter host countries with different institutional environments, they must make significant adaptations to their strategies in response to different legal systems, political and governmental frameworks, tax laws, and other regulations, which entails greater uncertainty, risks and higher transaction costs (Cezar and Escobar, 2015). Based upon this, it can be argued that institutional distance deters FDI – both the decision to invest in the distant host countries as well as the scale of that investment. Hence, we hypothesize:

*Hypothesis 2a: Relative institutions (institutional distance) matter for OFDI location choice; such that the decision to invest in a host country is negatively influenced by the magnitude of institutional distance between the home and host country.*

*Hypothesis 2b: Relative institutions (institutional distance) matter for the scale of investment; such that the volume of OFDI decreases with the magnitude of institutional distance between the home and host country.*

### **Institutional thresholds and the asymmetric effect of relative institutions on FDI**

Institutional distance can manifest both in terms of degree (magnitude) and in terms of direction. It can exhibit both in an 'upward' direction towards better institutions and 'downward' towards weaker institutions (Kostova *et al.*, 2020). There are various ways in which the direction of distance may matter. FDI from advanced economy MNEs to developing countries with weak institutions are likely to face increased transaction costs of doing business there, whilst an emerging market MNE might confront a similar distance in investing in an advanced economy and yet face high quality institutions that may entail lower transaction costs associated with fewer market imperfections. From an institutional economics perspective, they are not the same as although they both entail distance, one involves distance to better institutions and the other to weaker institutions, and the former is clearly preferred from this standpoint. Therefore, the impact of distance on both location choice and on the scale of

investment is expected to be affected by where the host countries lie on the institutional profile distribution. Where distance manifests to host countries with poor institutions it is more likely to negatively affect investment in such locales and therefore, we hypothesize:

*Hypothesis 2c: The effect of relative institutions (institutional distance) on OFDI location choice is likely to be asymmetric, i.e., negative when deciding to enter host countries that lie at the bottom (or lower end) of the institutional profile distribution and positive when deciding to enter host countries that lie at the upper end of the institutional profile distribution.*

*Hypothesis 2d: The effect of relative institutions (institutional distance) on the scale of investment is likely to be asymmetric, i.e., negative in the host countries that lie at the lower end of the institutional distribution profile and positive in the host countries that lie at the upper end of the institutional distribution profile.*

## Methodology

### Empirical context

We focus on India for two reasons. First, given that our aim is to disentangle the effect of institutional quality and institutional distance on OFDI, we needed to select a country from the middle of the institutional profile distribution (as per Van Hoorn and Maseland, 2016). India satisfies this criterion based on the World Governance Indicators (WGI) published by the World Bank for over 200 countries from 1996 onwards. For 133 countries, for which data on all six institutional indicators (detailed later) are available for the time period of this study, the average of the scores show that India sits in the middle quantile—at the 61st position (five spots below the median)—thereby providing an appropriate empirical context.

Second, owing to the rapid growth of Indian economy and improvements in institutional quality over the past two decades, the country has become an important receiver as well as source of global FDI flows (Nayyar and Mukherjee, 2020; Wagner and Delios, 2023). The Indian government started a process of economic liberalization in 1991, which included the initiation of pro-market reforms that aimed at encouraging private sector participation through easing restrictions on doing business in India. Since then, the cost of doing business in the country has declined and the institutional environment has become more supportive/business friendly. For example, improvements in institutional quality (absolute institutions) in India can be ascertained from its average score on the WGI that rose from  $-0.32$  to  $-0.11$  (on a possible range between  $-2.5$  and  $2.5$  with higher values indicating better institutions) between 2002 and 2020. The initial reform framework has been reinforced by the subsequent governments. From 2014 onwards, India has witnessed a slew of big and bold economic reforms in various areas, including the formalization of the economy, indirect taxation, digitization, a better policy environment, and fiscal incentives to attract investments in the manufacturing sector. In the past five years according to World Bank's ease of doing indicators, India saw its ranking improve from 142 to 63.

A consequence of these institutional and policy improvements is that the Indian economy has grown from being the 11th largest economy to the 5th largest between 2012 and 2022 (World Bank, 2023). Indian MNEs have become important global investors and India's OFDI flows have risen at an unprecedented pace and shown signs of resilience even during the global financial and eurozone crises (Iqbal *et al.*, 2018), and more recently the COVID pandemic. Between 2008 and 2020, Indian MNEs invested USD350 billion across 164 countries<sup>1</sup>. Mirroring their contribution to the country's GDP, the services sector contributed the majority of India's OFDI (51%), followed by manufacturing (40%), and the primary sector (9%). Drilling down further into the sectoral data,

<sup>1</sup> Authors' own calculations based on the firm-level overseas direct investment database published by Reserve Bank of India —[https://rbi.org.in/Scripts/Data\\_Overseas\\_Investment.aspx](https://rbi.org.in/Scripts/Data_Overseas_Investment.aspx).

reveals that firms in the high technology and knowledge intensive industries such as information technology, pharmaceuticals, and automobiles, played a particularly prominent role in these investment flows. North America and Western and Northern Europe accounted for 24% and 37%, respectively of Indian OFDI, followed by Asia at 21%, and Africa at 6%. Despite the growing importance of the Indian economy and its OFDI, India's OFDI flows remain relatively understudied in the literature (Zhu *et al.*, 2022a, 2022b), further supporting our choice of country.

### Sampling

The initial sample for the study consisted of 164 countries which attracted Indian OFDI flows between 2008 and 2020. In order to control for the sample selection bias, we followed previous studies and extended our sample to include 35 more countries which did not attract Indian OFDI and for which data on all institutional dimensions from 2008 to 2020 are available. (e.g., Buckley *et al.*, 2016; Munjal *et al.*, 2022).

We then excluded offshore financial centers as FDI flows to and from these countries are affected by round tripping (Aykut *et al.*, 2017), and excluded those countries for which data are missing. Consequently, our final sample consists of 131 countries and 1478 country-year observations. Of these 131 countries, 113 countries received India's OFDI.

### Variables and measures

**Dependent variable:** We constructed two dependent variables capturing two stages in the FDI decision: location choice and scale of investment. The location choice ( $OFDI_{ct}$ ) is a dichotomous variable that takes value 1 if OFDI from India went to country 'c' in year 't', 0 otherwise. The scale of investment ( $VOFDI_{ct}$ ) is measured as an aggregate of equity and loan investment (in USD millions) made by India in host country 'c' in year 't'.

The data on OFDI flows is obtained from the RBI overseas direct investment database. RBI, India's Central Bank, publishes firm-level monthly data on actual OFDI made by Indian firms in the form of equity, loans, and guarantees issued in overseas joint ventures and wholly owned subsidiaries, since July 2007. The database is comprehensive as it covers all investing Indian firms irrespective of their listing status, size, or age, and provides details on the geographical destination of the OFDI flows. For these reasons, the database has been used in prior Indian OFDI studies (e.g., Das and Banik, 2015; Munjal *et al.*, 2022).

**Independent variables:** We have two main independent variables—absolute institutions (i.e., institutional quality) and relative institutions (differences in institutional quality between the host country and India, i.e., institutional distance). Our measure of institutions is based on six World Governance Indicators (WGI) indicators, namely, voice and accountability; political stability and absence of violence/terrorism; government effectiveness; regulatory quality; rule of law; and control of corruption, which are published by the World Bank and have been widely used as a measure of a country's institutions (e.g., Adusei and Sarpong-Danquah, 2021; Tang and Buckley, 2022; Van Hoorn and Maseland, 2016). The WGI provides comprehensive coverage of institutional environments based on several hundred variables from over 30 underlying data sources (Kaufmann *et al.*, 2009).

A composite measure of absolute institutions (institutional quality) is constructed through the technique of principal component analysis with varimax rotation on standardized values of the six indicators (Hernández and Nieto, 2015). The application of Kaiser's rule led us to retain the first component, which accounts for 85.89% of the variation in the six underlying indicators. All the variables loaded significantly (factor loadings >0.86) on the derived component (Table 1).

We measured relative institutions (institutional distance) by subtracting the composite measure for institutional quality of the home country (India) from the composite measure for institutional quality of each host country.

**Control variables:** We control for various location attributes that could affect FDI inflows in the host countries. This includes gross domestic product (GDP) and GDP growth rate to control for the present and potential market size. We control for the natural resource and strategic assets



**Table 1.** Principal components analysis

Component	Initial eigenvalues			Component (1) Matrix, factor loadings	
	Total	% of Variance	Cumulative %	Indicators	Factor loadings
1	5.154	85.893	85.893	Voice & Accountability	0.861
2	0.351	5.845	91.737	Regulatory Quality	0.951
3	0.302	5.029	96.766	Government Effectiveness	0.963
4	0.114	1.908	98.674	Political stability & absence of violence	0.837
5	0.047	0.790	99.464	Rule of law	0.978
6	0.032	0.536	100.000	Control of corruption	0.960

Notes: Extraction method: principal component analysis; rotation method: Varimax with Kaiser normalization.

endowments of the host countries. The natural resources endowment is captured through the World Bank's measure of 'total natural resources rents (% GDP)' as the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. This measure includes not only the resources that are actually exported but also those that are unused or dormant but have an export potential and therefore can be attractive to the foreign direct investors (Munjal *et al.*, 2022). The data for the three variables came from the World Development Indicators (WDI, World Bank). The strategic assets endowment is measured as the total count of patent applications as reported by the filing office, obtained from World Intellectual Property Organization (United Nations).

Bilateral exchange rates between the home (Indian Rupees) and host currency (from the WDI) are also controlled for. There is mixed evidence on the relationship between exchange rates and FDI inflows in the country. Theoretically, a stronger host country exchange rate discourages FDI inflows by making foreign assets and factors of production more expensive. However, it raises MNEs' revenue and profits from foreign subsidiaries and therefore may encourage FDI in the form of reinvested earnings (Phillips and Ahmadi-Esfahani, 2008). Prior research has shown that trade and FDI have a strong relationship and that FDI usually follow exports (Blomstrom and Kokko, 1997; Kang and Jiang, 2012). Therefore, we controlled for home-host trade intensity (proportion of trade volume between India and host countries relative to host's total international trade volume) (Buckley *et al.*, 2016). This data came from the International Trade Centre<sup>2</sup>. The openness of the host country to FDI flows is an important factor as regards attracting FDI by offering a conducive business environment (Zhou and Lall, 2005). We measure FDI openness by calculating the proportion of inward FDI stock to GDP, obtained from UNCTAD FDI Statistics database.

We also control for geographic and cultural distances between India and the host countries. Higher geographic distance implies higher transaction costs such that FDI is more likely to go to proximate countries (Buckley *et al.*, 2016). The distance between the capital cities of the host countries and New Delhi is taken as a measure of geographic distance<sup>3</sup>. Similarly, cultural distance is argued to deter FDI flows by increasing adaptation costs for MNEs in the distant countries (Nayyar *et al.*, 2021). Following prior work, we conceptualize cultural distance using a 'common language' dummy that takes the value 1 if India and the host country share a common official language, 0 otherwise (e.g., Buckley and Munjal, 2017; Munjal *et al.*, 2022). The data for both the distance measures are obtained from the CEPII database<sup>4</sup>. Lastly, we included time dummies to control for year fixed effects.

<sup>2</sup><https://www.trademap.org/Index.aspx>.

<sup>3</sup>In line with the suggestion of an anonymous reviewer, we additionally calculate distances from Mumbai, the business capital of India. The results remain consistent and are reported in Table S3 in the supplementary file.

<sup>4</sup><http://www.cepii.fr/CEPII/en/cepii/cepii.asp>.

**Model specification and estimation techniques**

We use Heckman’s (1979) two-stage procedure to test our hypotheses. The procedure allows us to examine OFDI decisions at two stages and to estimate the unbiased results by including those countries which did not receive India’s OFDI. In the first stage, we estimate a ‘selection’ model where the decision is made as regards location choice. If the decision is made to invest in a particular host country, the second stage involves deciding on the volume/scale of investment in that country. The second stage model, i.e., the ‘outcome’ model estimates this scale of investment.

Given the dichotomous nature of the first-stage dependent variable, we use a random effects probit regression model to estimate the selection model, which is represented in equation (1) below:

$$OFDI_{ct} = \begin{cases} OFDI_{ct}^* & \text{if } OFDI_{ct}^* > 0 \\ 0 & \text{if } OFDI_{ct}^* \leq 0 \end{cases} \tag{1}$$

The scale of the investment (represented by the latent variable  $OFDI_{ct}^*$ ) is given by the second stage ‘outcome’ model, which is expressed in equation (2) below:

$$OFDI_{ct}^* = \alpha + \beta_1 I_{ct-1} + \beta_2 x_{ct-1} + \mu_{ct} \tag{2}$$

where  $t \sim 2008-2020$ ,  $I_{ct-1}$  are the institutional indicators in the period  $t - 1$ ;  $x_{ct-1}$  is a vector of control variables and  $\mu_{ct}$  is the error term that respects the assumptions of normal distribution  $(0, \sigma^2)$ .

For the estimation of the second-stage model, we used random-effects generalized least squares regression. The use of random effects panel regression methods was informed by the fact that the country fixed effects of the host country are not correlated with the independent variables (Cameron and Trivedi, 2005). To enable the transformation of the non-linear relationship between dependent and independent variables, we used log-log variable transformation (except for binary and computed variables) to estimate the model (Crown, 1998). We also used a one-year lag of time-varying independent variables to reduce endogeneity and allow for the fact that the strategic decision to make an investment at time ‘ $t$ ’ would depend on the institutional and other location characteristics of the host country at time ‘ $t - 1$ ’ (Buckley and Munjal, 2017).

Since the choice to invest in a host country is a result of self-selection reflected in the volume of investment, its inclusion in our sample is not random, suggesting the presence of a selection bias. The ignorance of this selection bias results in the error terms in the regression to be correlated with explanatory drivers of the investment, leading to biased estimates. Therefore, to correct for the sample induced endogeneity, we exclude a variable in the outcome model (FDI openness) that is more likely to affect OFDI location choices in the first stage than determine the scale of investment in the second (Sartori, 2003), and include the inverse-mills ratio as an additional control variable.

Thus, the second model estimation [ $E(OFDI_{ct}|X_{ct-1}, OFDI_{ct}^* > 0)$ ] is represented by equation (3) below:

$$\begin{aligned} E(OFDI_{ct}|X_{ct}, OFDI_{ct}^* > 0) &= X'_{ct-1} \beta + E(\mu_{ct}|\mu_{ct} \geq X'_{ct-1} \beta) \\ &= X'_{ct-1} \beta + \sigma \left[ \frac{\phi(X'_{ct} \beta/\sigma)}{\Phi(X'_{ct} \beta/\sigma)} \right] \neq X'_{ct-1} \beta; \end{aligned} \tag{3}$$

where  $[\phi(X'_{ct} \beta/\sigma)/ \Phi(X'_{ct} \beta/\sigma)]$  is the inverse-mills ratio, defined as the ratio of the probability that India will invest in a particular host country to the cumulative probability of the decision to invest.

**Results**

The descriptive statistics and correlation matrixes are presented in Table 2. The correlation coefficients suggest a positive association between India’s OFDI and a host country’s institutional quality and



**Table 2.** Descriptive statistics and correlation matrixes

(A): Stage 1: FDI location choice												
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) OFDI (dummy)	1.00											
(2) Absolute institutions	0.21	1.00										
(3) Relative institutions	0.15	0.74	1.00									
(4) L GDP	0.45	0.34	0.34	1.00								
(5) GDP growth (%)	0.08	-0.13	-0.17	-0.07	1.00							
(6) Natural resources (%)	-0.03	-0.40	-0.21	-0.05	0.08	1.00						
(7) L patents per capita (count)	0.14	0.62	0.44	0.59	-0.15	-0.18	1.00					
(8) L exchange rate	-0.08	-0.49	-0.34	-0.20	0.14	0.21	-0.34	1.00				
(9) L geographic distance	-0.06	0.23	0.04	-0.04	-0.09	-0.19	0.16	-0.14	1.00			
(10) Common language (dummy)	0.08	0.07	0.07	-0.10	0.08	-0.04	-0.18	-0.04	0.20	1.00		
(11) Trade intensity (%)	0.16	-0.13	-0.12	-0.18	0.09	0.08	-0.22	0.13	-0.31	0.02	1.00	
(12) FDI openness (%)	0.08	0.19	0.15	-0.17	0.00	-0.12	-0.07	-0.17	-0.01	0.09	-0.02	1.00
Mean	0.67	0.08	0.86	25.3	2.39	5.63	-10.0	2.74	8.65	0.22	28.21	75.23
Standard deviation	0.47	1.01	0.67	1.94	4.47	8.31	2.00	2.77	0.63	0.41	76.89	204.18
(B): Stage 2: Scale of investment												
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) L VOFDI	1.00											
(2) Absolute institutions	0.22	1.00										
(3) Relative institutions	0.22	0.84	1.00									
(4) L GDP	0.48	0.37	0.32	1.00								
(5) GDP growth (%)	0.00	-0.21	-0.21	-0.16	1.00							
(6) Natural resources (%)	-0.01	-0.41	-0.33	-0.15	0.13	1.00						

(Continued)

Table 2. (Continued.)

(B): Stage 2: Scale of investment												
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(7) L patents per capita (count)	0.22	0.62	0.48	0.67	-0.25	-0.22	1.00					
(8) L exchange rate	-0.18	-0.54	-0.43	-0.26	0.21	0.20	-0.38	1.00				
(9) L geographic distance	-0.05	0.26	0.15	0.19	-0.16	-0.20	0.19	-0.15	1.00			
(10) Common language (dummy)	0.13	0.09	0.11	-0.10	0.12	-0.01	-0.16	-0.04	0.29	1.00		
(11) Trade intensity (%)	0.01	-0.19	-0.17	-0.32	0.10	0.08	-0.28	0.16	-0.39	0.01	1.00	
(12) FDI openness (%)	0.07	0.18	0.16	-0.24	0.00	-0.12	-0.11	-0.19	-0.02	0.08	-0.04	1.00
Mean	15.17	0.08	0.86	25.3	2.39	5.63	-10.0	2.74	8.65	0.22	28.21	75.23
Standard deviation	2.92	1.01	0.67	1.94	4.47	8.31	2.00	2.77	0.63	0.41	76.89	204.18

Note: L stands for natural logarithm.

institutional distance. The value of coefficients ranges from  $-0.54$  to  $+0.62$ , indicating that multicollinearity is not a serious problem in our dataset. However, to rule out its possibility, we calculated variance inflation factors (VIFs). The mean value of the VIFs in the model estimating the effect of absolute (relative) institutions was found to be 1.73 (1.67), with 2.95 (2.52) being the maximum value, lower than the suggested threshold of 10 (Hair, 2009).

Tables 3 and 4 present the results of the effect of absolute (institutional quality) and relative institutions (institutional distance) respectively on India's OFDI decisions. In both the tables, Models 1–5 report the regression results at the first stage (i.e., location choice) and Models 6–10 present results for the second stage (i.e., scale of investment). Control variables are included in all the models. Models 1 and 6 present the full sample results, testing for hypotheses 1a and 1b (Table 3), and hypotheses 2a and 2b (Table 4).

To test for the effect of institutional quality and institutional distance on OFDI decisions in countries at the bottom and top of the institutional profile distribution, we performed a sub-sample analysis. We first created four sub-samples of host countries using median and quartile values (based on the values of composite institutional scores obtained through principal component analysis) of the institutional profile distribution as possible thresholds: *sub-sample 1*: host countries lying below the median and *sub-sample 2*: host countries lying above the median value; *sub-sample 3*: host countries below the first quartile (lower quantile of the distribution) and *sub-sample 4* for host countries lying above the third quartile (upper quantile of the distribution). Models 2–5 and 7–10 in Table 3 present the results of hypotheses 1c and 1d. The same models in Table 4 report the results of hypotheses 2c and 2d.

Hypotheses 1a and 1b imply that the quality of a host country's institutions has a positive effect on the location choice as well as the scale of investment. As can be seen from Model 1 in Table 3, the coefficient of absolute institutions is positive and statistically significant at the 10% level ( $\beta = 0.335$ ,  $P = 0.069$ ), thereby supporting our hypothesis 1a. Hence, an improvement in the quality of institutions in the host country is likely to increase the probability of the country attracting India's OFDI flows.

Concerning the effect of institutional quality on the scale of FDI (hypothesis 1b), we find that the coefficient takes the expected positive sign but does not attain statistical significance (Model 6 in Table 3;  $\beta = 0.175$ ,  $P > 10\%$ ). Hence, hypothesis 1b is not supported.

Hypothesis 1c predicts the positive association between institutional quality and location choice to be greater (smaller) for host countries that lie at the lower (upper) end of the institutional profile distribution. To test this, we performed regressions on four sub-samples. As predicted, the coefficient of absolute institutions is positive and significant at the 5% level in both the below median sub-sample (Model 2:  $\beta = 1.437$ ,  $P = 0.004$ ) and lower quartile sub-sample (Model 4:  $\beta = 2.513$ ,  $P = 0.002$ ). At the same time, the coefficient of institutional quality, although positive, is not significant in the above-median and upper quartile sub samples (Models 3 and 5, respectively). Lending support to hypothesis 1c, this finding suggests that in countries at the bottom of the institutional profile distribution, an improvement in institutional quality is likely to significantly increase the probability of attracting India's OFDI. Whereas a similar improvement in institutional quality in the countries at the upper end of the distribution is not likely to have a significant impact on this probability. To enhance the interpretation of the said effect, we plot the marginal effects (derivative) for institutional quality in host countries lying at different institutional thresholds. Figure 1 shows the weakening effect of improvements in institutional quality on India's OFDI location choice in host countries that lie at the upper end of institutional profile distribution. In other words, institutional improvements are subject to diminishing returns.

Hypothesis 1d suggests the positive association between institutional quality and the scale of India's OFDI to be stronger (weaker) in host countries that lie at the lower (upper) end of the institutional distribution. We do not find support for this hypothesis. The coefficient of absolute institutions (institutional quality) is not significant in both below median and lower quartile sub-samples (Models 7 and 9). On the other hand, the coefficient is positive and significant, in sub-samples of host countries lying at the upper end of the institutional profile distribution (above median sub-sample, Model 8:  $\beta = 0.828$ ,  $P = 0.050$ ; upper quartile sub-sample, Model 10:  $\beta = 2.461$ ,  $P = 0.002$ ).

**Table 3.** Regression results (effect of absolute institutions/institutional quality)

Variables	Stage 1: FDI location choice				
	Model 1 - Full sample	Model 2 - below median	Model 3 - above median	Model 4 - bottom quartile	Model 5 - top quartile
Absolute institutions	0.335*	1.437***	-0.139	2.513***	0.099
	(0.184)	(0.496)	(0.251)	(0.815)	(0.502)
GDP growth	0.007	-0.025	0.014	-0.049	0.017
	(0.018)	(0.026)	(0.023)	(0.032)	(0.023)
GDP	0.904***	0.991***	0.999***	1.029***	1.431***
	(0.112)	(0.22)	(0.122)	(0.363)	(0.252)
Patent intensity	-0.173	-0.228	-0.001	-0.429**	-0.428
	(0.111)	(0.159)	(0.144)	(0.199)	(0.27)
Natural resources	-0.021	-0.02	-0.039*	-0.059***	-0.066
	(0.016)	(0.017)	(0.023)	(0.02)	(0.086)
Exchange rate	0.048	0.132	0.006	-0.081	0.055
	(0.059)	(0.099)	(0.059)	(0.141)	(0.098)
Geographic distance	-0.211	-0.23	-0.735*	-0.459	1.091
	(0.384)	(0.456)	(0.428)	(0.461)	(0.927)
Common language	0.909	1.233	1.151***	-1.342	1.975*
	(0.586)	(0.943)	(0.424)	(1.272)	(1.08)
Trade intensity	0.011***	0.015**	0.009	0.029**	-0.06**
	(0.004)	(0.006)	(0.006)	(0.012)	(0.03)
Openness	0.002**	0.032***	0.002***	0.041***	0.005***
	(0.001)	(0.01)	(0.001)	(0.014)	(0.002)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	-22.226***	-26.005***	-17.757***	-25.235**	-48.435***
	(4.312)	(7.892)	(5.725)	(10.527)	(13.597)
Observations	1,215	542	673	240	394
Log likelihood	-408.338	-182.128	-194.906	-90.608	-81.0763
$\chi^2$	94.76***	78.81***	122.04***	1,341.11***	6,204.45***
Variables	Stage 2: Scale of Investment				
	Model 6 - Full sample	Model 7 - Below median	Model 8 - Above median	Model 9 - Bottom quartile	Model 10 - Top quartile
Absolute institutions	0.175	0.232	0.828*	0.289	2.461***
	(0.335)	(0.89)	(0.426)	(1.095)	(0.8)
GDP growth	-0.009	-0.04	0.036	0.039	0.04
	(0.025)	(0.038)	(0.032)	(0.058)	(0.043)
GDP	0.698***	0.664***	1.244***	0.964***	1.219***
	(0.234)	(0.25)	(0.237)	(0.199)	(0.299)

*(Continued)*

Table 3. (Continued.)

Variables	Stage 2: Scale of Investment				
	Model 6 - Full sample	Model 7 - Below median	Model 8 - Above median	Model 9 - Bottom quartile	Model 10 - Top quartile
Patent intensity	-0.099 (0.128)	-0.045 (0.142)	-0.304 (0.193)	-0.437*** (0.149)	-0.574* (0.3)
Natural resources	0.009 (0.028)	0.01 (0.04)	0.025 (0.034)	0.124*** (0.027)	-0.09 (0.14)
Exchange rate	-0.024 (0.072)	-0.019 (0.097)	-0.122 (0.142)	-0.13 (0.081)	-0.097 (0.179)
Geographic distance	-0.995** (0.405)	-0.887* (0.516)	-1.482** (0.718)	-1.586*** (0.371)	0.587 (1.033)
Common language	1.484*** (0.502)	1.357* (0.819)	1.742** (0.724)	0.967* (0.58)	1.209 (0.752)
Trade intensity	0 (0.002)	0.007 (0.005)	0.001 (0.002)	0 (0.002)	0.009 (0.009)
Inverse mills ratio	-1.391* (0.812)	-0.819 (0.799)	0.599 (0.592)	-1.187** (0.477)	-0.436 (0.509)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	4.319 (7.05)	4.896 (7.946)	-9.006 (8.1)	-1.625 (6.781)	-31.118** (14.637)
Observations	843	358	485	147	321
$R^2$	0.36	0.36	0.38	0.59	0.45
$\chi^2$	179.01***	136.68***	84.47***	180.62***	235.65***

Notes: Cluster robust standard errors in parentheses. \*\*\*, \*\*, \* indicates statistical significance at 1%, 5%, and 10% level, respectively.

This implies that while improvements in the institutional quality in the host countries at the lower end of the institutional profile distribution improves the chances of Indian MNEs' location decisions there, the amount of the investment commitment remains small as long as the country persists below certain institutional thresholds. A good example of this is evident in Indian MNEs' investments in Africa. While many African countries have seen improvements in the institutional quality with continued regulatory reforms, the continent is still disproportionately represented in the lower institutional profile subsample (Luiz *et al.*, 2021). Examining Indian OFDI to the continent shows that whilst there has been increased activity in terms of decisions to invest, the scale of these investments have remained relatively low. Indian MNEs like Intas Pharmaceuticals, Tata Consultancy Services, Marico, to name a few, have invested in African countries, but the magnitude of these investments has remained relatively small.

Concerning the effect of relative institutions (institutional distance), hypotheses 2a and 2b suggest a negative effect of institutional distance on Indian OFDI location choice and scale respectively. As can be seen from Model 1 in Table 4, the coefficient of the institutional distance is negative and significant at the 5% level ( $\beta = -0.543$ ,  $P = 0.017$ ), supporting hypothesis 2a. However, we do not find support for hypothesis 2b. The sign and statistical significance of the coefficient ( $\beta = 0.758$ ,  $P = 0.029$ ) in Model 6 of Table 4 suggest the opposite, i.e., the scale of India's OFDI is likely to be higher in institutionally distant host countries. This is not altogether surprising as emerging market MNEs have been found to

**Table 4.** Regression results (effect of relative institutions/institutional distance)

Variables	Stage 1: FDI location choice				
	Model 1 - full sample	Model 2 - below median	Model 3 - above median	Model 4 - bottom quartile	Model 5 - top quartile
Relative institutions	−0.543** (0.227)	−1.493*** (0.506)	−0.135 (0.252)	−2.519*** (0.806)	0.115 (0.502)
GDP growth	0.001 (0.018)	−0.025 (0.026)	0.014 (0.023)	−0.049 (0.032)	0.018 (0.023)
GDP	1.014*** (0.123)	1.007*** (0.222)	0.998*** (0.122)	1.031*** (0.363)	1.43*** (0.252)
Patent intensity	−0.065 (0.103)	−0.228 (0.159)	−0.002 (0.144)	−0.431** (0.199)	−0.431 (0.27)
Natural resources	−0.033** (0.016)	−0.022 (0.018)	−0.039* (0.023)	−0.059*** (0.02)	−0.066 (0.086)
Exchange rate	0.009 (0.066)	0.13 (0.1)	0.006 (0.059)	−0.081 (0.141)	0.056 (0.099)
Geographic distance	−0.28 (0.437)	−0.226 (0.465)	−0.735* (0.428)	−0.461 (0.461)	1.091 (0.925)
Common language	1.144* (0.617)	1.25 (0.944)	1.151*** (0.423)	−1.347 (1.274)	1.974* (1.079)
Trade intensity	0.01** (0.004)	0.015** (0.006)	0.009 (0.006)	0.029** (0.012)	−0.06** (0.03)
Openness	0.002** (0.001)	0.032*** (0.01)	0.002*** (0.001)	0.041*** (0.014)	0.005*** (0.001)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	−22.657*** (4.829)	−26.637*** (7.915)	−17.719*** (5.726)	−25.812** (10.598)	−48.485*** (13.578)
Observations	1,215	542	673	240	394
Log likelihood	−407.310	−182.267	−194.914	−90.537	−81.071
$\chi^2$	95.83***	77.62***	122.16***	1,380.13***	6,341.97***
Variables	Stage 2: Scale of investment				
	Model 6 - full sample	Model 7 - below median	Model 8 - above median	Model 9 - bottom quartile	Model 10 - top quartile
Relative institutions	0.584** (0.268)	0.058 (0.974)	0.883** (0.428)	−0.264 (1.092)	2.463*** (0.808)
GDP growth	−0.002 (0.024)	−0.036 (0.038)	0.036 (0.032)	0.039 (0.058)	0.04 (0.043)
GDP	0.751*** (0.174)	0.673*** (0.258)	1.242*** (0.237)	0.964*** (0.199)	1.218*** (0.3)

*(Continued)*



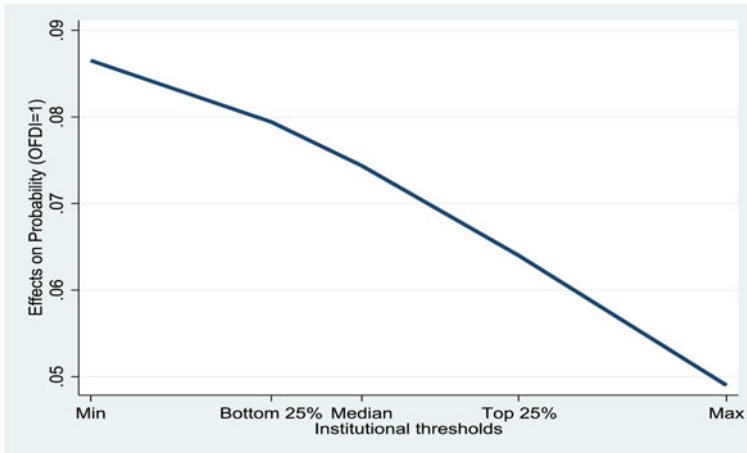
Table 4. (Continued.)

Variables	Stage 2: Scale of investment				
	Model 6 - full sample	Model 7 - below median	Model 8 - above median	Model 9 - bottom quartile	Model 10 - top quartile
Patent intensity	-0.157 (0.107)	-0.04 (0.144)	-0.311 (0.193)	-0.436*** (0.149)	-0.574* (0.301)
Natural resources	0.009 (0.019)	0.009 (0.039)	0.025 (0.034)	0.124*** (0.027)	-0.091 (0.141)
Exchange rate	-0.018 (0.071)	-0.02 (0.098)	-0.118 (0.142)	-0.13 (0.081)	-0.097 (0.18)
Geographic distance	-0.94*** (0.349)	-0.846* (0.514)	-1.505** (0.719)	-1.582*** (0.371)	0.583 (1.034)
Common language	1.435*** (0.498)	1.401* (0.829)	1.752** (0.724)	0.964* (0.58)	1.21 (0.751)
Trade intensity	0.001 (0.002)	0.006 (0.005)	0.001 (0.002)	0 (0.002)	0.009 (0.009)
Inverse mills ratio	-1.096** (0.461)	-0.809 (0.805)	0.603 (0.592)	-1.186** (0.476)	-0.442 (0.508)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	1.316 (5.883)	4.188 (8.242)	-9.053 (8.101)	-1.727 (6.842)	-31.567** (14.627)
Observations	843	358	485	147	321
$R^2$	0.36	0.35	0.38	0.59	0.45
$\chi^2$	133.68***	131.40***	84.89***	180.32***	236.39***

Notes: Cluster robust standard errors in parentheses. \*\*\*, \*\*, \* indicates statistical significance at 1%, 5%, and 10% level, respectively.

frequently invest aggressively in institutionally distant but 'better' countries in order to overcome their latecomer status on the global stage and catch-up with their advanced country counterparts (Holtbrügge and Kreppel, 2012; James *et al.*, 2020; Luiz *et al.*, 2017; Luo and Tung, 2018). Various Indian firms, including Glenmark, Intas, and Lupin from the pharmaceuticals industry; automobile majors Mahindra & Mahindra and Tata Motors; and Wipro Technologies and Infosys from the IT industry, have made major direct investments in countries like the US, UK, Australia, France, Germany—all of which are institutionally distant from India but with better institutions.

We further probe the effect of institutional distance on the location choice and scale of investment in hypotheses 2c and 2d. Hypothesis 2c implies that the effect of institutional distance is likely to vary depending on the position of the host country on the institutional profile distribution. As predicted, the coefficient of institutional distance is negative and significant at the 5% level in the below-median sub-sample (Table 4, Model 2:  $\beta = -1.493$ ,  $P = 0.003$ ), as well as in lower quartile sub-sample (Model 4:  $\beta = -2.519$ ,  $P = 0.002$ ). On the other hand, the coefficients of the institutional distance variable in the above-median and upper quartile sub-samples (Models 3 and 5, respectively), do not reach the statistical level of significance. Therefore, hypothesis 2c is partially supported. The result suggests that the magnitude of institutional distance deters location choice in host countries that lie at the lower end of the institutional profile distribution (and have weaker institutions than their home location). The findings are graphically depicted (marginal plots of probabilities) in Figures 2 and 3.

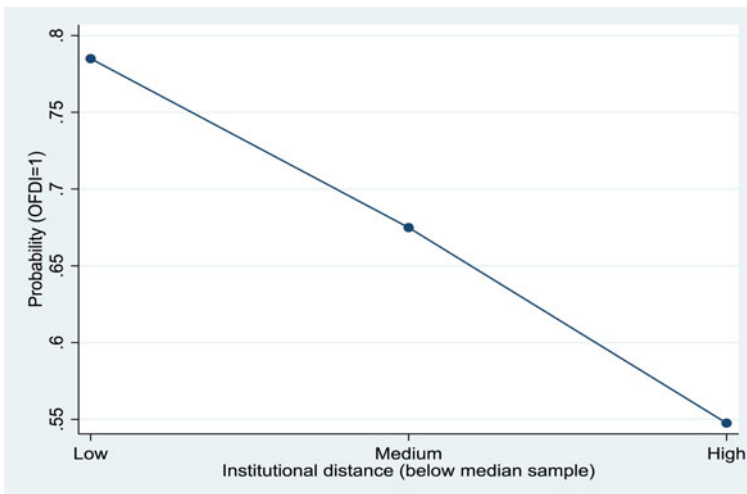


**Figure 1.** Conditional marginal effects (derivative) of institutional quality (absolute institutions) on the probability of OFDI location choice.

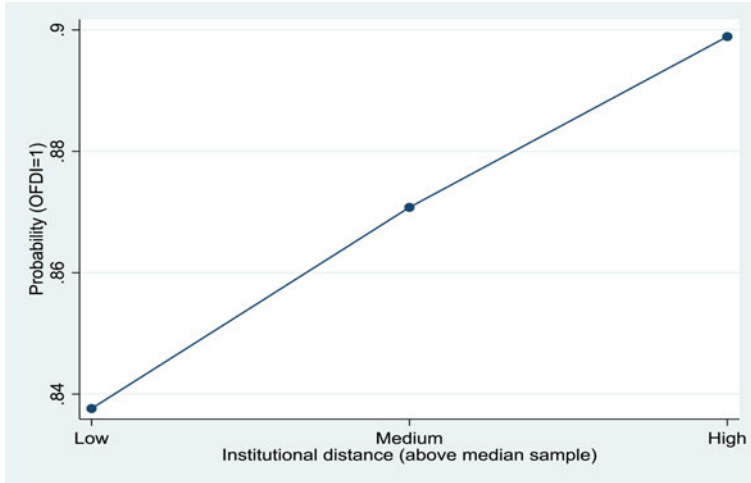
As can be seen, the predicted probability of choosing an institutionally distant host country reduces if the country lies towards the bottom end of the institutional profile distribution (i.e., below the specified thresholds) (Figure 2) and increases if it lies above the institutional thresholds (Figure 3).

For hypothesis 2d, the coefficient of institutional distance achieves a positive and significant value at the 5% level in both above-median (Model 8:  $\beta = 0.883, P = 0.039$ ) and upper quartile (Model 10:  $\beta = 2.463, P = 0.002$ ) sub-samples. However, statistically significant results are not found in both below- and lower quartile sub-samples (Models 7 and 9, respectively). This suggests that Indian MNEs are undeterred by the challenges of institutional distance when making large commitments in host countries that lie at the upper end of the institutional profile distribution. In host countries having weak institutions, institutional distance does not explain the scale of India’s OFDI. Hence, hypothesis 2d is partially supported.

To summarize, when the decision about the location choice is made, the full sample results reveal that both absolute and relative institutions matter. However, further analysis on subsamples that depict



**Figure 2.** Marginal effect of institutional distance (relative institutions) on the probabilities (adjusted predictions) of OFDI location choice (below median sample).



**Figure 3.** Marginal effect of institutional distance (relative institutions) on the probabilities (adjusted predictions) of OFDI location choice (above median sample).

various institutional thresholds, finds that the effect of both the measures of institutions is asymmetric. The significant positive (negative) effect of the absolute (relative) institutions remains consistent only when the location choice is made amongst the host countries that lie in the lower range of the institutional profile distribution. That is, for host countries at the lower end of the institutional profile distribution, an improvement in the quality of institutions significantly improves the likelihood of OFDI there and an increase in institutional distance deters that likelihood. At the same time, an equivalent improvement in the quality of institutions in the countries that lie in the upper range of the distribution is immaterial to the choice of OFDI location. When the location choice is made amongst countries that lie at the upper end of the institutional profile distribution (i.e., have good institutional quality), further improvements in the quality of institutions (absolute institutions) as well as the magnitude of institutional distance (relative institutions) does not matter. When the decision is about the scale of investment, the full sample results suggest that it is the relative institutions that matter, and again the effect is asymmetric. Greater institutional distance exerts a positive effect on India's OFDI scale in the countries that lie in the upper range of the institutional profile distribution. The results for absolute institutions for upper thresholds suggest likewise—the preference of Indian MNEs to commit more resources to countries with good institutional quality.

### Robustness checks

We checked for the robustness of our findings by conducting regression analyses on more sub-samples of host countries that have better or worse institutions than India. The results, for both absolute and relative institutions, are found to be consistent. Absolute (relative) institutions positively (negatively) influence the location choice in host countries that have worse institutional quality than India. On the other hand, both absolute and relative institutions positively affect the scale of India's OFDI in the host countries that have better institutions than India.

We also test for the robustness of our findings by including an alternate measure of geographic distance from India's financial capital, Mumbai, rather than Delhi. The results are found to be consistent.

Further, to rule out the possibility that our results could be sensitive to the measure of institutions, we carried out robustness checks using the Economic Freedom Index (Heritage Foundation) which is another widely used measure of institutions (Kostova *et al.*, 2020), and found consistent results. All the robustness results are presented in the Supplementary File.

## Discussion and implications

### *Theoretical implications*

Research has raised concerns about the potential dangers of melding institutional distance and institutional profile (institutional quality) effects (Brouthers *et al.*, 2016; Harzing and Pudelko, 2016; Van Hoorn and Maseland, 2016). This is important because the underlying mechanism through which institutions matter for FDI may work differently depending on whether one is considering absolute versus relative institutions. If we are to take the study of institutions forward, we need to be clear on *how* institutions matter. Our focus here is on how institutions affect both the location choices and the scale of FDI, and we isolate these two effects.

Our first advancement on existing research is to show that although both absolute and relative institutions matter for FDI decisions, they *matter differently, in different dimensions, to different decisions*. Absolute institutions come to the fore more strongly in OFDI location choice decisions. There is a preference for locations with good quality institutions that minimize risk and reduce transaction costs. But the effects are not symmetrical. If a country is at the lower end of the institutional distribution, then improving the quality of institutions, whilst likely to have a substantial increase in the likelihood of attracting the FDI, it is not going to result in meaningful volumes of investment as long as the country remains below certain institutional thresholds. Sizeable investments are focused on host countries that meet specific (higher) institutional standards. In other words, *absolute institutional thresholds matter for the scale of investment*.

How does institutional distance matter? We demonstrate that this distance effect is more nuanced than is often posited in extant literature. Once again, we find asymmetrical effects. Institutional distance is off-putting from a location choice perspective, but asymmetrically for countries that lie on the lower end of the institutional profile distribution—reinforcing notions of institutional thresholds that we found with absolute institutions, but here from a distance perspective. In terms of the size of the investment, when countries lie above these institutional thresholds then institutional distance is welcomed and more is better.

This notion of an institutional threshold comes through strongly and consistently and we see it as a second theoretical contribution. Theoretically, whilst it supports the notion that the quality of institutions and their ability to sustain effective economic activity is critical (Kostova *et al.*, 2020), we demonstrate that it is not uniformly linear and that certain minimum institutional standards need to be in place before the full effects in terms of the scale of foreign investment are to be experienced. This has intriguing implications that we unpack in the next section. We thereby provide further nuance to studies on the asymmetrical effects of institutions on OFDI decisions (Tang and Buckley, 2022).

A further contribution lies with the empirical disentangling of institutional quality and institutional distance effects. By selecting India, which lies in the middle of the institutional profile distribution, we follow the advice from Van Hoorn and Maseland (2016) as regards using appropriate reference points in single country studies. Furthermore, they call for any analysis of institutional distance to also include corresponding measures of institutional quality and vice versa, so that these effects are accounted for simultaneously. We do so here and demonstrate why this is so important in terms of picking up the differential results. In doing so, we also suggest that it might not be the sign of the distance that matters so much as where the host country is located along the institutional distribution.

### *Practical implications*

Our findings have intriguing implications at both a managerial and policy level. In terms of the latter, the research implies that whilst good institutions matter for location choice, threshold effects may apply in terms of the scale of investment. Therefore, from a policymaker's position it implies that a gradual improvement in the quality of institutions is unlikely to result in substantial FDI inflows unless the country has met certain minimum institutional standards. Institutional reforms cannot be haphazard but must be persistent and wide-ranging and may require 'big bang' approaches to institutional

development to attract sizeable FDI. Institutional threshold effects require a certain minimum critical effort at institutional reform.

From a managerial standpoint, two implications emerge. First, our research demonstrates the importance of differentiating between relative versus absolute institutional effects. These two effects have different managerial consequences: one focuses on bridging the institutional divide, and the other on lessening the exposure to unfavorable host location institutional milieus (Van Hoorn and Maseland, 2016). This, in turn, leads to the second implication, namely that a MNE needs to consider the different managerial strategies required depending on whether one is investing in a country towards the lower or the upper end of the institutional profile distribution. Along the lower quantiles of institutional quality, gradual institutional reforms may not translate into meaningful improvements that sufficiently alter the cost-benefit calculation from an MNE perspective, which would swing the scale of the investment volume. Even with institutional improvements, the risks remain high and require appropriate mitigating strategies or more staggered investment approaches, until specific minimum institutional improvements are visible.

### Limitations and areas for future research

Our study has limitations, which also provides scope for future research. First, future studies could extend our findings by focusing on the interaction effects between a host country's institutions and other locational advantages (as per Dunning, 1998). Second, although the context of our study enables us to overcome the conflation issue relating to institutional quality and institutional distance on OFDI, the findings could be corroborated by extending the sample to include groups of other emerging markets at a similar level of institutional development. Third, since the extent of institutional effects on FDI decisions could vary depending on other factors such as the value-chain position (i.e., investment in vertical upstream, downstream, or horizontal activities) and a firm's ability to handle institutional complexities as affected by its resources and ownership characteristics, a natural extension of this study would be to account for such micro-level factors in examining the proposed relationships. Finally, given the nature of our data, we had to exclude OFDI in the form of guarantees as the data pertains to guarantees issued rather than guarantees invoked. While some of this would be captured as OFDI in the form of loans, we could not clearly establish that component. Contingent on data availability, future studies on Indian OFDI could capture the guarantees data.

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/S1744137423000292>.

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