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Adding Cultural Distance or Bridging Cultural Barriers? Business Group Affiliation and Ownership in International Acquisitions

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ADDING CULTURAL DISTANCE OR BRIDGING CULTURAL BARRIERS? BUSINESS GROUP AFFILIATION AND OWNERSHIP IN INTERNATIONAL ACQUISITIONS

ABSTRACT

Several studies have examined the determinants of the degree of ownership in outward FDI from EMNES, however none of them have examined the specific role of business group affiliation. Business group affiliation has typically been perceived as helping to fill institutional voids in the home country, but the cross-border implications of such affiliation have rarely been examined. This is important for our theoretical understanding of the changing role of business groups as home country institutional environment improvements begins to fill in institutional voids, thus eroding the domestic role of business groups. We argue that business group affiliation fundamentally provides firms with greater affordability and risk-taking ability in acquiring equity stake in cross-border acquisitions. More importantly, business group affiliation serves to bridge cultural barriers, and serves to diminish the adverse effects of cultural distance in acquiring equity stake. Using a sample of 218 public and private firms from India entering into 26 host countries across a wide range of industry sectors, we find that Indian firms that are affiliated to business groups acquire significantly larger amount of ownership equity stake than non-affiliated firms. Furthermore, while cultural distance generally requires firms to acquire greater equity stake for greater control, firms affiliated to business groups are able to get by with lesser equity as compared to unaffiliated firms. Our study has practical implications for managers to appreciate the support they can derive from the valuable collective experience residing in business groups.

Keywords*: Business Groups, Emerging Economies, Ownership Equity, Partial Acquisitions*

Introduction

- Degree of ownership and its implications for firm performance
- Definition of business groups (Khanna and Rivkin, SMJ); Traditional role of business groups in filling up institutional voids
- Cross-border role of BG affiliation
  - Greater resources -capital, labour, contract enforcement through reputation effects, willingness to give more equity; financial resources – access to each other's resources, more slack
  - Greater risk-taking ability – greater confidence arising from the collective experience of others in the group (Guillen, 2002: 187)
  - Absorptive capacity of the group rather than the firm
- Changing role of BGs as domestic institutional environment goes through improvisations towards filling up voids. (Ma, Yao, Xi, 2006, APJM)
- Chittoor, Aulakh and Ray (2015) MIR paper
- EMNES face greater liabilities of foreignness
  - Higher cost of capital, however BG affiliation allows for lower cost of capital in home country due to reputation and hence bargaining power of the BG; lading to greater affordability for higher equity stake position

We argue that business group affiliation fundamentally provides EMNE firms with greater resources and risk-taking ability in acquiring equity stake in cross-border acquisitions (H1).

As cultural distance increases, EMNE firms normally acquire larger amount of ownership equity stake in international acquisitions.

The influence of cultural distance on EMNE acquirer firm's equity stake in international acquisitions is moderated by Business Group affiliation, such that, affiliated firms acquire lesser equity than non-affiliated firms (H3).

Using a sample of 218 public and private firms from India entering into 79 host countries across a wide range of industry sectors, we find that Indian firms that are affiliated to business groups acquire significantly larger amount of ownership equity stake than non-affiliated firms. Furthermore, while cultural distance generally requires firms to acquire greater equity stake for greater control, firms affiliated to business groups are able to get by with lesser equity as compared to unaffiliated firms.

Our study has practical implications for managers to appreciate the support they can derive from the valuable collective experience residing in business groups.

Contributions

1. H1 and H3
2. H1: While the influence of EMNEs has been studied, BGs within EMNES has not been studied from an ownership perspective.
3. H3: CD story moderated by BG.

Theory and Hypotheses

Literature review

Overseas acquisitions by emerging economy firms

Scholars have called for attention to the phenomenon of overseas acquisitions by emerging-economy firms, particularly the spectacular wave of acquisitions by Indian firms into both advanced and emerging economies (Gubbi, Aulakh, Ray, Sarkar & Chittoor, 2010; Ray & Gubbi, 2009). Indian firms demonstrate the highest rate of growth among emerging economies both in terms of value and number of deals (Ray & Gubbi, 2009).

Motivation for overseas acquisitions

It has been argued that international acquisitions are valuable to Indian firms because they enable internalization of tangible and intangible resources that are hard to obtain through market transactions and challenging to quickly be developed organically, and furthermore firms create more value when the target firms are located in the institutional environments of advanced economies (Gubbi, Aulakh, Ray, Sarkar & Chittoor, 2010).

Deng (2009) argues that cross-border M&A by Chinese firms is an escape response to home country institutional constraints to obtaining strategic resources, and pressures created by internal corporate values and norms regarding global leadership.

Challenges in overseas acquisitions

He and Lyles (2008) have examined China's outward FDI, especially into the United States and explore aspects of liability of foreignness of these firms in political, cultural, technological and marketing aspects using mini-case studies.

Potential determinants of acquirer equity stake

Guillen (2003) has examined the staged expansion of South Korean firms into China between 1987 and 1995. He reports that firms in the same business group are found to imitate each other's choice of joint ventures and wholly owned plants, whereas firms in the same industry mimic each other's choice of wholly owned plants, though not of joint ventures.

Filatotchev, Strange, Piesse & Lien (2007: 556) explore the entry mode and location choices of firms from Taiwan, a newly industrialized economy, into an emerging market (the People's Republic of China). They show that "the choice of equity stake in an affiliate depends upon the extent of family and institutional share ownerships in the parent company. High-commitment entry is found to be positively associated with the affiliate being located in areas with strong economic, cultural and historic links with the parent company. Furthermore, the entry mode and location decisions appear to be interrelated, with the parent's equity stake in the affiliate depending inter alia upon the location within China, and the favoured location depending inter alia upon the equity stake".

Value added by business groups

Definition of business groups as per the relevant literature:

Hypothesis 1: EMNE firms affiliated to business groups acquire larger amount of ownership equity stake in international acquisitions than non-affiliated firms.

- Resources and affordability arguments; risk-taking ability

Hypothesis 2a: As cultural distance increases, EMNE firms acquire larger amount of ownership equity stake in international acquisitions.

- H2a: Cultural distance and Internalization (control) arguments (Morschett, Klein and Swoboda, 2010)

Hypothesis 2b: As cultural distance increases, EMNE firms acquire smaller amount of ownership equity stake in international acquisitions.

- H2b: Cultural distance and Transaction cost arguments (Too costly to control, hence better left alone, Hennart and others)

Hypothesis 3: The influence of cultural distance on EMNE acquirer firm's equity stake in international acquisitions is moderated by Business Group affiliation, such that, affiliated firms acquire lesser equity than non-affiliated firms.

Cultural Distance X BG:

Double layered acculturation – National culture and Organization culture

> Utilizing the prior experience of others within the group in bridging both national culture and organizational cultures, the other firms might have made acquisitions both domestically (thus bridging organizational culture barriers) and internationally (thus bridging national culture barriers)
>
> So, normally while greater cultural distance demands greater equity stake (for EMNEs), BG affiliated firms from EMNEs can get by with lesser equity.
>
> Thus, business group affiliation serves to bridge cultural barriers, and serves to diminish the adverse effects of cultural distance in acquiring equity stake as they are able to rely on the experience of other firms to manage the acquisition with lesser ownership.
>
> Another argument is that BGs are likely to have a strong internal culture, a BG organizational culture, that poses greater challenge wrt managing a cross-border acquisition through acquiring higher level of equity, and would rather subscribe to the H2b view.

Data and Methodology

Data Sources

The sample of mergers and acquisitions made by Indian companies abroad was obtained from the *SDC Platinum Mergers and Acquisitions Thomson Financials* database. This initial sample consisted of 926 cross border transactions, with home country as India, deal status 'completed', excluding transactions with host country as India, between 1980 to 2009.

The SDC Mergers and Acquisitions database contains a few declared JVs, but the entire set of JVs is not available in this database, hence the JVs from the M&A database were excluded from the set to ensure uniformity. Thus the available sample consists only of partial and full acquisitions. The sample size reduced to 830 after removing those firms which either had a non-Indian ultimate parent (to ensure that we considered only firms of Indian origin), or had missing values for the dependent variable. This sample contained 491 public and private firms entering into 79 host countries across a wide range of industry sectors and all industry groups. Because acquirer firm data were required for the analysis, we matched the Indian parent firms for each transaction to the firms listed in the *PROWESS (Centre for Monitoring of Indian Economy)* database. Many of these values had to be hand-coded since the firm names had slight variations across the two databases.

A large number of deals terminated into the United States and the United Kingdom. Most of the firms in our sample belonged to either manufacturing or services. See Table 1 for distribution of the data among host countries and the spread across acquirer and target industry categories.

Insert Table 1 about here

Based on the availability of values for all the requisite controls, after a listwise deletion of missing values, the final sample numbered 218 transactions. Tabachnick and Fidell (2001) provide thumb rules that N>= 50+8m for testing multiple correlation and N>= 104+m for testing individual predictors, where N is the sample size and m is the number of predictors. This works out to 226 and 126, with m=22 predictors in our case, and therefore we are reasonably close with a sample size of 218.

Dependent Variable

The percentage of equity owned by the acquirer in the target firm is our key dependent variable representing the acquirer equity stake (Cuypers *et al*., 2015; Filatotchev et al., 2007).

Analysis

We tested the hypotheses using OLS, Tobit and binomial logit. Binomial logit is the conventional method of analysis in the foreign entry mode literature when the dependent variable is categorical (Barkema & Vermeulen, 1997; Zhao, Luo & Suh, 2002), multinomial logit or probit when the categorical variable takes more than two values (Zhao et. al, 2002), and OLS (or Tobit) is preferred when the dependent variable is continuous (Delios & Henisz, 2000).

Since the same firm had made multiple investments into a particular country, we used a Stata sub-command to cluster by acquiror firms in order to control for within-group variation for all target firms that were acquired by the same acquirer firm (Slangen & Tulder, 2009; Xu, Pan & Beamish, 2004).

Finally, we also employ a categorical version of the dependent variable, following Delios and Henisz (2000), where we define ownership levels of 51% ownership or more as hierarchy (majority or full control) and the rest as hybrid mode (minority control). The 'market' mode is excluded from the analysis as a large number of possible deals in this category are not captured in a mergers and acquisitions database, and so what we analyze actually constitutes partial and full acquisitions. We also check the sensitivity of the results with 80% and 95% cutoffs as alternatives (Delios & Henisz, 2000; Dhanaraj & Beamish, 2004).

Independent Variable

Business group Affiliation: *PROWESS (Centre for Monitoring of Indian Economy)* database.

Cultural Distance: Kogut and Singh (1988)

Control Variables

The values for several control variables were obtained from eclectic sources as explained in Table 2.

Insert Table 2 about here

Results

See Table 3 for correlations and descriptive statistics of the study's measures. Some of the variables are correlated among themselves, so we took care to build our models incrementally and also ensured strict checks for multicollinearity. The industry dummy correlations indicated that financial acquirer firms possibly tended to acquire firms in target financial industry. Country acquisition regulation restriction (foreign ownership restrictions from the Global Competitiveness Report 2006-2007) was also negatively correlated with the host country <>, where low values for the foreign ownership restriction indicate that foreign ownership of companies in that country is rare and limited to minority stakes, and often prohibited in key sectors and high values indicate that foreign ownership is prevalent and encouraged.

Insert Table 3 about here

The basic model employed is:

Degree of Acquirer Stake = f (Business Group Affiliation, Cultural Distance, Controls)

Table 4 presents the results of OLS regression. Four models are presented with OLS, corresponding Tobit, clustering by firms and including cultural distance as an additional control.

Insert Table 4 about here

Post-hoc analysis

Table 5 presents the results of logistic regression.

Insert Table 5 about here

Discussion and Conclusion

Example of Tata Group

Limitations

Further research

Implications for managers

Changing role of the business group and how to tap into the wealth of collective experience.

TABLE 1 Descriptive statistics for Indian firm transactions into host countries

Target Nation	Freq.	Percent
Australia	5	2.29
Belgium	3	1.38
Brazil	2	0.92
Canada	2	0.92
Denmark	2	0.92
Egypt	3	1.38
Finland	4	1.83
France	2	0.92
Germany	13	5.96
Hong Kong	4	1.83
Indonesia	6	2.75
Ireland-Rep	1	0.46
Italy	9	4.13
Japan	1	0.46
Malaysia	2	0.92
Mexico	1	0.46
Netherlands	5	2.29
Portugal	1	0.46
Singapore	12	5.5
South Africa	7	3.21
Spain	4	1.83
Switzerland	2	0.92
Thailand	6	2.75
United Kingdom	34	15.6
United States	86	39.45
Uruguay	1	0.46
Total	218	100

Target Industry Group	Freq.	Percent
Financial	10	4.59
Manufacturing	113	51.83
Natural Resources	8	3.67
Services	80	36.7
Trade	7	3.21
Total	218	100

Acquiror Industry Group	Freq.	Percent
Financial	5	2.29
Manufacturing	140	64.22
Natural Resources	3	1.38
Other	4	1.83
Services	66	30.28
Total	218	100

TABLE 2 Control Variables

Variable Description	References	Operationalization	Expected relationship	Source
Home Firm Effects				
Firm Size	Delios & Henisz, 2000	Logarithm of Sales	Positive	CMIE PROWESS
Multinational Experience	Kogut & Singh, 1988, Barkema & Vermeulen, 1998 Makino & Neupert, 2000	Number of countries entered by the firm	Positive	Thomson Financials SDC Platinum
R&D Intensity	Henisz, 2000	Ratio of R&D to Sales	Positive	CMIE PROWESS
Advertising Intensity	Henisz, 2000	Ratio of Advertising Expenses to Sales	Positive	CMIE PROWESS
Product Diversification	Kogut & Singh, 1988;	Count of SIC codes	Positive	Thomson Financials SDC Platinum
Home Industry Effects				
R&D Intensity Advertising Intensity Growth rate, Concentration and Competitive Intensity	Several studies	Home Industry group dummy	Varied	Thomson Financials SDC Platinum
Home Country Effects				
National Culture Size of home market		Home country fixed at India	NA	NA
Host Firm Effects				
Firm Size	Kogut & Singh, 1988	Not well studied in the literature	Positive	Not considered
Host Industry Effects				
Market potential, Growth Concentration R&D Intensity Advertising Intensity	Several studies	Host Industry Group dummies for Financial, Manufacturing, Services.	Varied	Thomson Financials SDC Platinum
Host Country Effects				
Corporate Governance	Spamann, 2008; La Porta, Shleifer & Vishny, 1998	Antidirector index -revised values	Proposed	Spamann, 2008

Population	Henisz, 2000	Logarithm of Population	Positive	World Bank database
National Income	Henisz, 2000	Logarithm of GNI Per Capita	Positive	World Bank database
Country Risk	Other risk indices have been used by several studies	OECD Risk Index	Negative	OECD website
Foreign Ownership Restriction	Henisz (2000); Slangen & Tulder (2009)	Country wise ranking for acquisition regulation restriction	Positive	Global Competitiveness Report, 2006-2007, Table 6.10
Strength of market supporting institutions	Meyer, Estrin, Bhaumik & Peng, 2009	Heritage and Wall Street Economic Freedom rankings (incorporates World Bank Ease of Doing Business)	Positive	Heritage and Wall Street website
Venture/Deal-specific Characteristics				
Venture R&D investment	Gatignon & Anderson, 1988	Venture R&D expenses	Positive	Thomson Financials SDC Platinum
Product relatedness of home and host firms	Barkema & Vermeulen, 1998	Relatedness of product with 3-digit code	Negative	Thomson Financials SDC Platinum
Global conditions				
Global Industry Concentration	Kim & Hwang, 1992	Questionnaire based	Positive	Not available; Industry dummy may proxy for this.
Miscellaneous				
Phases of FDI outflow from India	Hansen, 2009 in Kumar & Patibandla, 2009	Early Phase (1975-1990) Startup Phase (1991-2000) Takeoff Phase (2001-)	Varied	Thomson Financials SDC Platinum

TABLE 3 Correlations and Descriptive Statistics[a]

	Variable	Mean	s.d.	Minimum	Maximum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Percentage of equity owned	88.09	24.55	6.40	100.00																								
2	Power distance[b]	45.90	14.84	18.00	104.00	-0.25																							
3	Adjusted individualism[b]	63.10	17.99	24.98	99.99	0.08	-0.46																						
4	Masculinity[b]	57.87	12.47	14.00	95.00	0.09	-0.31	0.30																					
5	Uncertainty avoidance[b]	48.38	17.68	8.00	104.00	0.06	0.05	0.06	-0.05																				
6	Long Term Orientation[b] (Marginal Propensity to Save - MPS)	17.23	18.31	0.00	63.93	-0.06	0.59	-0.55	-0.49	-0.15																			
7	Long Term Orientation[b] (World Value Study - WVS)	42.69	19.95	6.80	87.91	0.04	0.21	-0.17	-0.06	0.04	0.66																		
8	Cultural Distance	1.61	0.51	0.37	3.71	0.29	-0.68	0.25	-0.14	0.13	-0.27	-0.06																	
9	Acquirer firm size[c]	6.34	2.11	0.00	10.10	-0.08	-0.06	0.16	0.16	0.13	-0.15	-0.08	-0.04																
10	Acquirer multinational experience	3.77	3.84	1.00	16.00	-0.11	0.13	-0.11	-0.10	-0.05	0.06	-0.04	-0.08	0.27															
11	Business Group Dummy	0.54	0.50	0.00	1.00	0.15	-0.10	0.17	0.09	0.03	-0.16	-0.06	0.13	0.22	0.09														
12	Acquirer R&D Intensity[d]	0.00	0.04	-0.01	0.16	0.00	0.06	0.00	-0.07	0.10	0.03	0.08	0.08	0.10	0.18	0.07													
13	Acquirer Advertising Intensity[d]	-5.54	2.42	-11.68	5.53	-0.04	0.11	-0.05	-0.17	-0.02	0.07	0.03	-0.05	-0.31	-0.04	0.20	0.10												
14	Acquirer Product Diversity	3.63	2.07	1.00	15.00	0.01	-0.23	0.18	0.13	-0.01	-0.18	-0.06	0.12	0.24	-0.10	0.11	0.04	0.05											
15	Acquiror in Financial industry	0.02	0.15	0.00	1.00	-0.09	0.14	-0.08	-0.03	-0.06	0.12	0.07	-0.16	-0.39	-0.10	-0.04	-0.07	0.37	-0.08										
16	Acquiror in Manufacturing industry	0.64	0.48	0.00	1.00	0.07	-0.11	0.15	0.13	0.09	-0.04	0.12	0.09	0.26	0.20	0.02	0.13	-0.23	0.05	-0.21									
17	Target in Financial industry	0.05	0.21	0.00	1.00	-0.07	0.18	-0.15	-0.11	-0.15	0.21	0.16	-0.18	-0.31	-0.10	-0.02	-0.09	0.25	-0.07	0.55	-0.07								
18	Target in Manufacturing industry	0.37	0.48	0.00	1.00	0.00	-0.04	-0.11	0.00	-0.09	-0.13	-0.27	0.03	-0.07	0.15	-0.04	-0.09	-0.02	-0.08	-0.05	-0.48	-0.17							
19	Country Acquisition Restriction Regulation	5.58	0.57	4.30	6.40	0.00	-0.14	0.06	0.01	-0.52	0.32	0.48	0.07	-0.10	-0.07	-0.05	-0.03	0.09	0.07	0.11	0.03	0.19	-0.19						
20	Country Corporate Governance Index	3.58	1.14	0.00	5.00	-0.07	-0.05	0.25	0.09	-0.41	0.12	0.18	-0.09	0.14	0.07	0.01	0.09	-0.09	0.14	-0.13	0.07	-0.01	-0.08	0.48					
21	Country Population[e]	18.19	1.37	15.01	19.49	0.06	-0.32	0.15	0.46	0.15	-0.70	-0.55	0.05	0.00	-0.03	0.13	-0.12	-0.01	0.03	0.01	0.00	-0.15	0.15	-0.45	-0.45				
22	Country Per capita GNI[e]	10.09	0.91	6.97	10.78	0.24	-0.66	-0.02	0.31	-0.21	-0.37	-0.03	0.59	0.02	-0.02	0.10	0.02	-0.11	0.19	-0.18	0.09	-0.11	0.07	0.19	0.13	0.13			
23	Venture R&D Expenses[e]	1.72	1.45	-1.60	3.80	0.11	-0.03	0.01	0.01	-0.02	0.03	0.02	0.04	-0.17	0.00	-0.16	-0.02	-0.02	-0.05	0.02	0.09	-0.03	-0.07	0.06	0.06	-0.07	0.02		
24	Acquisition is a Related Diversification	0.31	0.46	0.00	1.00	0.00	-0.07	-0.04	-0.03	-0.15	0.08	0.05	0.02	-0.10	-0.07	-0.10	-0.13	0.00	0.08	-0.04	-0.03	0.14	0.10	0.16	0.01	-0.04	0.05	0.06	
25	Acquisition is a Horizontal Diversification	0.39	0.49	0.00	1.00	-0.02	-0.04	-0.02	0.00	-0.11	0.05	0.08	0.00	-0.13	-0.10	-0.05	-0.16	0.10	0.15	0.00	0.00	0.14	0.02	0.13	0.01	-0.05	0.07	0.08	0.83

[a] Correlations greater than .06 or less than -.06 are significant at $p < .05$.

[b] Means, minimum and maximum shwon for uncentered values, correlations for centered values

[c] Logarithm of acquirer sales in Indian rupees

[d] Logarithm of ratio of R&D or Advertising Expenses to acquirer sales

[e] Logarithm

TABLE 4 Regression analysis for ‘Acquirer Equity Stake’

Variable	Model 1		Model 2 (Model 1 + Direct effect of Business Group Affiliation)		Model 4 (Model 3 + Moderating Effect of Cultural Distance)		Model 4' (Tobit of Model 4)	
Main Effects								
Business Group Affiliation			8.818**	(3.324)	42.35**	(14.627)	132.529***	(40.321)
Moderator Variables								
Cultural Distance					17.529**	(6.228)	50.037*	(21.271)
Acquirer firm size [a]					-1.444	(0.878)	-4.858	(3.512)
Moderating Effects								
Business Group Affiliation X Cultural Distance					-20.52*	(8.562)	-63.183**	(23.956)
Business Group Affiliation X Acquirer Firm Size								
Control Variables								
Acquirer multinational experience	-0.875	(0.531)	-0.994+	(0.535)	-0.57	(0.55)	-1.719	(1.557)
Acquirer R&D Intensity[b]	-2.984	(62.548)	-4.244	(64.418)	-22.165	(69.96)	-1.645	(160.644)
Acquirer Advertising Intensity[b]	0.388	(0.812)	-0.076	(0.791)	-0.647	(0.751)	-4.587	(2.908)
Acquirer Product Diversity	-0.317	(0.64)	-0.442	(0.628)	-0.168	(0.663)	-0.747	(2.795)
Acquiror in Financial industry	-9.141	(15.509)	-5.924	(13.32)	-5.444	(11.115)	2.88	(51.887)
Acquiror in Manufacturing industry	4.743	(4.675)	4.831	(4.575)	3.975	(4.242)	0.955	(14.5)
Target in Financial industry	-2.776	(8.269)	-3.383	(7.553)	2.476	(7.081)	5.283	(35.184)
Target in Manufacturing industry	1.559	(4.6)	2.362	(4.557)	1.263	(4.174)	0.905	(14.375)
Country Acquisition Restriction Regulation	-0.621	(3.524)	-0.101	(3.382)	-0.879	(2.947)	-18.445	(13.406)
Country Corporate Governance Index	-2.451	(1.857)	-2.806	(1.802)	-2.007	(1.637)	-9.459	(6.409)
Country Population [b]	1.814	(1.331)	2.26+	(1.345)	1.373	(1.332)	-10.194+	(6.076)
Country Per capita GNI [b]	-0.686	(1.383)	-1.126	(1.355)	-1.139	(1.274)	11.538	(8.043)
Venture R&D Expenses[b]	6.634**	(2.409)	6.153**	(2.351)	3.553	(2.551)	5.922	(3.77)
Acquisition is a Related Diversification	4.055	(6.869)	5.015	(6.572)	6.011	(6.171)	10.203	(23.25)
Acquisition is a Horizontal Diversification	-6.048	(6.63)	-6.351	(6.414)	-6.969	(6.34)	-16.208	(21.902)
Constant	47.172	(36.492)	50.613	(35.801)	56.395	(34.83)	258.974+	(150.898)
R^2		0.1059		0.134		0.1965	*Pseudo-R^2*	0.05
Adjusted R^2		0.0395		0.0646		0.1194	*Log-likelihood*	-370.5845
F		1.59		1.94		3.63		
df		217		217		218	*N*	218
n-k-1		202		201		128		
ΔR^2				0.0251		0.080		
$F(\Delta R^2)$				6.4023		14.4329		
p-value for $F(\Delta R^2)$				0.0122 *		0.0002 ***		
Largest VIF		3.61		3.61				

[a] Logarithm of sales in crores of Indian rupees

[b] Logarithm

+ p < 0.1
*p < .05
** p < .01
*** p < .001

TABLE 5 Logistic regression analysis at various cutoffs for 'Acquirer Equity Stake'

Variable	Model 5a (Control Model for 95% cutoff)		Model 5b (Control Model for 80% cutoff)		Model 5c (Control Model for 51% cutoff)	
Main Effects						
Business Group Dummy	4.147***	(1.831)	3.824**	(1.709)	1.781	(1.186)
Control Variables						
Cultural Distance						
Acquirer firm size [a]	0.818+	(0.089)	0.867	(0.092)	0.902	(0.168)
Acquirer multinational experience	0.928+	(0.036)	0.9**	(0.035)	0.962	(0.058)
Acquirer R&D Intensity[b]	8.182	(61.769)	33.357	(270.329)	0.198	(1.666)
Acquirer Advertising Intensity[b]	0.883	(0.075)	0.895	(0.083)	0.937	(0.094)
Acquirer Product Diversity	1.005	(0.095)	0.931	(0.083)	1	(0.106)
Acquiror in Financial industry	0.573	(0.695)	0.304	(0.381)	1.739	(3.068)
Acquiror in Manufacturing industry	1.137	(0.599)	1.327	(0.728)	1.78	(1.309)
Target in Financial industry	0.357	(0.345)	0.596	(0.689)	0.277	(0.448)
Target in Manufacturing industry	1.153	(0.561)	1.148	(0.546)	1.012	(0.531)
Country Acquisition Restriction Regulation	0.487+	(0.186)	0.611	(0.227)	1.402	(0.633)
Country Corporate Governance Index	0.885	(0.127)	0.96	(0.146)	0.673*	(0.135)
Country Population [b]	0.772	(0.155)	0.806	(0.182)	1.047	(0.259)
Country Per capita GNI [b]	1.795**	(0.337)	1.81**	(0.365)	1.418	(0.322)
Venture R&D Expenses[b]	1.209	(0.153)	1.169	(0.159)	1.302+	(0.201)
Acquisition is a Related Diversification	1.323	(0.829)	0.963	(0.664)	3.733	(3.189)
Acquisition is a Horizontal Diversification	0.585	(0.386)	0.774	(0.562)	0.429	(0.295)
Constant						
Log pesudolikelihood		-101.840		-91.640		-64.370
Number of observations		218		218		218
Wald Chi-square		27.96		32.93		29.52
Prob > chi-square		0.0454		0.0115		0.0300
Pseudo R^2		0.1497		0.1534		0.1238

[a] Logarithm of sales in crores of Indian rupees

[b] Logarithm

+ p < 0.1
*p < .05
** p < .01
*** p < .001

REFERENCES