Prediction Efficacy of Intra-group Merger & Acquisition Deals: Evidence from India

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*This study collects a sample of intra-group merger and acquisition (*M&A*) deals and empirically tests whether the market views such deals as value added ones or tunneling deals. The initial event study result supports the view as they are value added deals. A further partitioning of the sample based on acquirer characteristics, group affiliation and rescue criteria, the findings helps us to understand the prediction efficacy of intra-group deals. The results confirming the value-added view are contradictory to the return results in other emerging economies.*

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Introduction

A business group is a dominant form of organizational structure in India. Groups like Tata, Ambani, and Birla have remarkable success and long known history more than decades and diversified in nature (Ghemawat & Khanna, 1998). Several characteristic features like concentrated ownership, diversification, and access to internal capital market distinguish business groups from stand-alone private firms. Masulis et al. (2011) compares among 45 countries and finds that business groups in India have high concentrated ownership and comparable pyramidal structure which indicates toward the principal-principal agency problem (Balasubramanian & Anand, 2013). The existence of business groups despite several critiques posit a business group puzzle (Khanna & Yafeh, 2008) and studied extensively by researchers through different lenses and perspectives. This aggregates in a setting to investigate the tunneling hypothesis through intra-group deals announcements.

In the emerging economies, literature on minority shareholders expropriation

through tunneling and propping behavior by firms' controlling owner is vast and studied extensively (Bebchuk et al., 1999; Johnson et al. 2000; Bertrand et al., 2002). Several reasons highlighted for tunneling behavior in which poor investor protection (La Porta et al., 1999); separation of ownership and control (Bebchuk et al., 2000), institutional voids (Khanna & Palepu., 2000) debated extensively in the later period. In this study, we evaluate and analyze the empirical approach by Bae et al. (2002) to examine the tunneling or value-added hypothesis in business group settings.

Bae et al. (2002) through an event study approach confirms that group firms in Korea found to have negative abnormal return around the merger and acquisition (M&A) deal announcement day and thus confirms the tunneling behavior. We identified that the Bae et al. (2002) study results have generalizability issues. First, the M&A is a highly regulated activity and governed by the regulation of an economy. Second, the study considers only large business groups, i.e., survivorship bias problem in the sample may hinder the economic relevance of the results. Third, the governance mechanism is country-specific and varies in emerging economies over time due to reforms taking place in past two decades. Identifying these issues critical for M&A deals in India, especially intra-group deals, we perform the event analysis and revisit the tunneling versus value added debate.

This study examines the return of the acquirer firm as well as the portfolio return of other firms in the same group around the merger announcement date. The sample consists of around 54 business groups, with diversity in terms of scale and scope thus avoiding survivorship bias problem. The deal announcement date and other firm specific financial data are taken from the CMIE prowess database. The results confirm that, the cumulative average abnormal return (CAR) is positive for both the acquirer firm and other firm in the same group thus confirming the support for value added view. The study results are novel and contradict the findings of Bae et al. (2002) for group firms in Korea. A detailed analysis of results develops investor understanding and prediction efficacy of intra-group deals in the Indian context.

Business Group Structure & Agency Problem

Theory of ownership and control have defined the firm structure differently in developed and emerging economies. The early studies of firm behavior by Berle and Means (1932) followed by Jensen and Meckling (1976) assumed a widely held firm to give arguments made for control rights allocation, managerial discretion, capital structure, and investment choices in developed economies (Myers 1977; Ross 1977). This line of inquiry primarily focusses on the principal-agent problems. Later, the seminal work emphasizing the importance of separating decision management from decision control (Fama & Jensen, 1983a;1983b) is identified contradicting in concentrated ownership structure as defined by Demsetz and Lehn (1985). Studies like Grossman and Hart

(1986), Shleifer and Vishny (1986) explained that firm's agent is different in concentrated ownership structure from diffused ownership structure.

The separation of ownership and control giving rise to the agency problem is differently addressed in emerging economies. The group structure is common in emerging economies under which a single owner/entity controls several firms through structural devices like pyramids, dual class shares and crossholdings, the controlling shareholder's collusion with manager results in severe agency cost i.e., expropriation of minority shareholders (La Porta et al., 1998; 2002; Bebchuk et al., 2000; Claessens et al., 1999; 2002). In such an arrangement the Demsetz and Lehn's (1985) concentrated ownership-based alignment argument combined with Bebchuk's (1999; 2000) entrenchment arguments support the principal-principal agency problems.

Tunneling Activity Due to Agency Problem

As stated, the principal-principal agency problem in group affiliated firms is a reason for the minority shareholders' expropriation through tunneling activity (Cheung et al., 2006; 2009, Guo et al., 2009; Kohlbeck & Mayhew, 2010; Jia et al., 2013). Broadly, the literature to detect tunneling has two methods: first, the direct method focuses on the effect of related party transactions such as loan guarantees (Berkman et al., 2009; Chen et al., 2015), related lending (Guo et al., 2009) and inter-corporate loans (Jiang et al., 2010). Several studies provide linkages between RPTs, ownership variables, and performance, taken any two of these together (Kang et al., 2014; Wong et al., 2015). The results are mixed when it comes to the debate of value added versus tunneling view.

The second method called as indirect method identifies two broad methodologies –industry-shock methodology and announcement analysis. Bertrand et al. (2002) develop industry-shock methodology to detect the resource transfer activity in group firms, which, later followed by others like Friedman et al. (2003), Kali and Sarkar (2011), and Peng et al. (2011). Siegel and Choudhury (2012) provide critiques on the method and improve after emphasizing on the strategic motive of the firms. Gopalan et al. (2007) present evidence of negative tunneling for group firms in India and supports the hypothesis suggested by Friedman et al. (2003). Other methodologies which fall into the category of indirect method, considers the market reaction of announcement news for an event (s). Such methods consider the cumulative abnormal return estimates using market model to capture the market reaction of the event around the news announcement date. Market *ex ante* perceives various corporate news/events and reacts accordingly, which in turn, confirms the tunneling hypothesis. Price reactions to the announcement news such as M&A (Bae et al., 2002), earnings result (Bae et al., 2008; Cheung et al., 2014) and private securities offering (Baek et al., 2006; Gonenc & Hermes, 2008; Marisetty et al., 2008) have been tested and supports the tunneling view. Studies on the price reaction to the exchange listing of related party

transactions combine both the direct and indirect methods to provide support for tunneling view (Peng et al., 2011; Huang et al., 2012; Ryngaert &Thomas, 2012).

Institutional Environment & Hypothesis Development

Two established views for M&A deals exist in literature. One view supports the value-added hypothesis, according to which, under M&A deals the management can be disciplined and seek to achieve the wealth maximization objective for shareholders. Under this, the issues such as free rider problem (Grossman & Hart, 1986), target firm management problem (Jensen, 1988), and economic efficiency issues are resolved due to the synergy effect (Jensen & Ruback, 1983). Though, theoretical literature on value added view is well received but, empirical evidences present mixed results i.e. negative (Dodd, 1980; Mitchell & Lehn, 1990), positive (Franks & Harris, 1989), and insignificant (Higson & Elliot, 1998) value effect in the short run. In the long run, wealth effect primarily exhibits negative abnormal return (Mandelkar, 1974; Dodd & Ruback, 1977; Langetieg, 1978; Firth, 1980). In emerging economies, a positive acquirer's return for firms with high ownership concentration supports the value-added view (Ben-Amar & Andre, 2006; Yen & Andre, 2007).

Second view supports the tunneling behavior under which the expropriation of minority shareholders is confirmed when acquirer's return is positive, but the controlling shareholders found to benefit in such deals at the cost of minority shareholders' value (Bae et al., 2002). Under tunneling hypothesis, Bae et al. (2002) predict acquirer's announcement return negative. Earlier studies for Indian business groups though, support the value-added view but, doubt is caste upon the availability and disclosure of ownership data during the time and there is no study which tests the tunneling or value-added hypothesis when intra-group M&A deals take place. Our purpose here is to revisit the tunneling and value-added hypotheses present in the extant literature. We predict a negative abnormal return which supports the tunneling view.

Hypothesis 1 The acquirer's return around the announcement day is negative.

Further, under tunneling view the market *ex ante* perceives the transfer of resources from the acquirer firm to other firms in the same group at the cost of minority shareholders' wealth. This results in a negative reaction of the market and hence the acquirer earns a negative return. Also, there is less resource transfer possibility following the positive return for other firms due to synergy effect for the group as a whole. Therefore, we can predict a negative relationship between the abnormal returns of acquirer and the other firms in the group.

Hypothesis 2 The acquirer's return and portfolio return of remaining firms in business group is related.

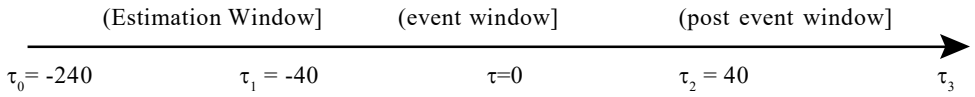
Sample

We obtained the data set of Indian M&A deals from CMIE Prowess database. Initially, we identified 411 deals for the period from 2001 through 2015. Excluding 24 inter-group deals (deals where target/acquirer is not group firm), and 19 deals in which target is merged at two different dates, the sample converged to 343 events. Further, for 197 firm events the stock return data was not available for the event and therefore the final sample converged to the 146 events for 95 non-financial firms affiliated from 54 business groups. In our sample, the deals are completed. The sample considers completed deals in which a few acquirers have acquired more than one target firm. For the event study, we considered the exchange announcement date as event date which also matches with the board approval date of the acquirer firm.

Event Study Method

To measure the market's reaction to a corporate event disclosed in public by a listed firm an event study method is used. We estimated the cumulative average abnormal return (CAR) using the abnormal return estimates. For abnormal return estimation, we consider the estimation period of 280 days i.e., 240 days prior and 40 days after the announcement. The main event window to analyze the abnormal returns is 40 days prior and 40 days after the event date ($\tau = 0$).

Fig. 1 Timeline for the Event Study



To estimate the abnormal returns, we first calculated the expected return and took the difference between the realized return and expected return. Several models are available to estimate the expected return. For short run event studies, the choice of model is irrelevant due to the fact that the errors caused by the inaccuracy in the adjustments of risk do not affect the abnormal return significantly. Brown and Warner (2008) states that simple risk adjustment approaches are well suited and acceptable for short run event-studies. Considering this, we adopt the market model to estimate the expected return using the market index return for the sample period. If $E\left[R_{i,\tau}/\Omega_{i,\tau}\right]$ is the expected return conditional on the history or stock price information, the linear relationship between expected return $E[R_{i,\tau}/\Omega_{i,\tau}]$ and the market index return is given as

Simple risk adjustment approaches are well suited and acceptable for short run event-studies.

$$E[R_{i,\tau}/\Omega_{i,\tau}] \hat{\alpha}_i+\hat{\beta}_i Rm,\tau \text{.....(1)}$$

The abnormal return ($AR_{i,\tau}$) for event date τ and firm i is the difference between realized return and the expected return.

$$AR_{i,\tau}=R_{i,\tau}-E[R_{i,\tau}/\Omega_{i,\tau}].....(2)$$

$$AR_{i,\tau}=R_{i,\tau}-[\hat{\alpha}_t+\hat{\beta}_t Rm,\tau].....(3)$$

Here Ri,τ and Rm,τ are the daily returns for announcing firm and the market index (National Stock Exchange, NSE). The coefficients α_t and β_t are the estimates of OLS regression using 200 days return period beginning from -240 to -41.

Next, we estimated the cumulative average abnormal return (CAR) to evaluate the total effect of event on acquirer's returns. For this, abnormal return is aggregated over time around the event date (τ=0) i.e. from τ_1=-40 through τ_2=+40.

$$CAR_{(\tau1,\tau2)}=\sum_{t=\tau2}^{t=\tau1} AR_{i,\tau}.....(4)$$

We consider *CARs* for various event windows i.e. two day [-1, 0], three day [-1, +1], five day [-2, +2], eleven days [-5, +5], and thirty-one days [-15, +15] window in the analysis.

Variables Used

The variables taken are available in Table 1.

Table 1 Variable Name, Meaning & Definition

Variable Name	Symbol	Definition
Cumulative Average Abnormal Return for the acquirer firm	CAR_i	Cumulative average abnormal return around the M&A announcement day
Market adjusted portfolio return of the group firms excluding acquirer	CAR_p	Cumulative average abnormal return of group firms around the announcement day excluding the acquirer firm
Market adjusted portfolio return of the group firms including acquirer	CAR_{pa}	Cumulative average abnormal return of group firms around the announcement day including the acquirer firm
Cash flow to total assets	CFTA	Acquirer's cash flow divided by total assets
Industry adjusted return of the acquirer	$RETURN_{adj}$	Acquirer's industry adjusted return
Promoter's ownership	OWNER	A dummy variable of promoter ownership which takes the value 1 if it is above median in the group, 0 otherwise
Size	MVE	A dummy variable for the acquirer's equity's market value of the acquirer which takes the value 1 if it is above median, 0 otherwise
Listing status of the acquirer and target	LISTED	A dummy variable which takes the value 1 the acquirer and target are listed, 0 otherwise
Industry relatedness	RELATED	A dummy variable which takes the value 1 if the acquirer and target belong to the same industry, 0 otherwise
Target to acquirer size	RELATIVE_ SIZE	A ratio of target's market value of equity to acquirer's market value of equity

To examine the tunneling versus value-added view, the cumulative average abnormal return of the acquirer firm around the merger announcement date is estimated and analyzed.

Cumulative Average Abnormal Return

The return for the acquirer firm (CAR_i), the groups' return excluding acquirer (CAR_p), and groups' return including acquirer *(CAR_{pa})* is estimated and presented in panel A of Table 2. For acquirer, the return for event windows (-2, 2), (-10, 10), and (-15, 15) and (-20, 20) are 0.5 %, 4.68 %, 5.02% and 4.84% respectively with all values significant at 1 percent level. The groups' return excluding the acquirer for event windows (-2, 2), (-10, 10), and (-15, 15) and (-20, 20) are 1.12 %, 1.47 %, 1.55 % and 0.94% respectively. When the acquirer is included in estimating the groups' return, the return for event windows (-2, 2), (-10, 10), and (-15, 15) and (-20, 20) are 3.14%, 4.06%, 5.07 % and 4.15 % respectively. The results confirm that the return is positive and significant around the deal announcement for the acquirer and the group in overall. The return is smallest in the three days window which further increase up to 31 days window and later declines in 41 days window for all three categories. This confirms that investors reaction is best captured in 31 days window and is the most suitable window to analyze further. Since the overall return is positive for all event windows, the possible effect of negative outlier value is minimum. Table 2 provides the cross-sectional *t*-test results. However, other statistical tests such as patell's-*z* test, corrado rank test, and sign tests for event study run separately and significance value is obtained. These tests are not reported here.

The results confirm that the return is positive and significant around the deal announcement for the acquirer and the group in overall.

In panel B, the return analysis is provided for the sub-sample - top-fifty business group (TFBG) firms, and other business group (OBG) firms. For TFBG firms, the mean and median value is significant only for CAR (-10, 10). For OBG firms, the average values for CAR (-10, 10), and CAR (-15, 15) are 11.9 %, and 14.3 % respectively, significant at 1 percent level each. The average CAR (-2, 2) value is positive but not significant. The test of difference between OLBG and OBG categories suggests that both the category returns are significantly different and indicates different purposes behind merging another firm in the same group. Though, the return value is positive for both the categories, but return values are large for OBG category. This indicates that OBG acquirer firms are appreciated by the market more as compared to TFBG acquirers this seems contradictory to the available tunneling view. A return analysis based on the financial characteristics of acquirer provides insights regarding market's view in intra-group deals. In Fig. 1 the return graph for the acquirer, group return excluding acquirer and group return including the acquirer is observed as increasing post deal announcement.

Table 2 Panel A: CAR Test Results of All Acquirer Firms Around the Merger Announcement Date

	Acquirer		Portfolio return excluding acquirer		Portfolio return including acquirer	
Event Window	CAR_i	t- Value	CAR_p	t- Value	CAR_{pa}	t- Value
(-2, 2)	0.0051	2.592***	0.0112	4.917***	0.0314	8.465***
(-10, 10)	0.0468	4.125***	0.0147	2.913***	0.0406	4.768***
(-15, 15)	0.0502	3.435***	0.0155	2.533**	0.0507	5.210***
(-20, 20)	0.0484	3.015***	0.0094	1.371**	0.0415	3.796***

Panel B: CAR_i test results for TFBG and *OBG* acquirer firms around the M&A announcement date

	TFBG Firms(A)		*OBG* firms(B)		Test of difference(A – B)	
Event Window	Mean	Median	Mean	Median	*t*-test	Wilcoxon *z*-test
(-20, 20)	0.002	-0.001	0.003	0.001	0.11	0.20
(-2, 2)	0.007	0.001	0.020	0.013***	1.32	2.03**
(-10, 10)	0.025**	0.021**	0.119***	0.091***	3.39***	3.11***
(-15, 15)	0.006	0.002	0.143***	0.121***	3.66***	3.44***

*, **, and *** represents the significance level at 10 %, 5%, and 1 % level respectively

The Return Relationship Between Acquirer Firm & Group Firms Excluding Acquirer

The return relationship between acquirer and the portfolio of group firms is estimated and results are given in Table 3. It is evident that the effect of acquirer's return on the firms' portfolio return for a one-month abnormal return, i.e. CAR (-15, 15), the effect is positive but not significant. On the other hand, for a five-days' abnormal return, i.e., CAR (-2,2) the acquirer's return affects the portfolio return positively with a coefficient value 0.191, significant at 5% level. This confirms the second hypothesis that an increase in acquirer's return increases the other member firms' return. This finding confirms that in aggregate terms, intra-group deals are appreciated by the market. This finding is contradictory to the Bae et al. (2002) findings.

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Abnormal Return & Financial Characteristics

To estimate the prediction efficacy, CAR (-15, 15) is estimated for the sample firms' characteristics below and above median and result is presented in Table 4. When the sample is classified above and below the median of cash flow to total assets (CFTA), the average return is positive and significant with values 3.21% and 5.862% significant at 5 percent level. The median return is also positive and significant. The difference t- test between both the subsamples is not significant. This indicates that market appreciates more the acquirers with below

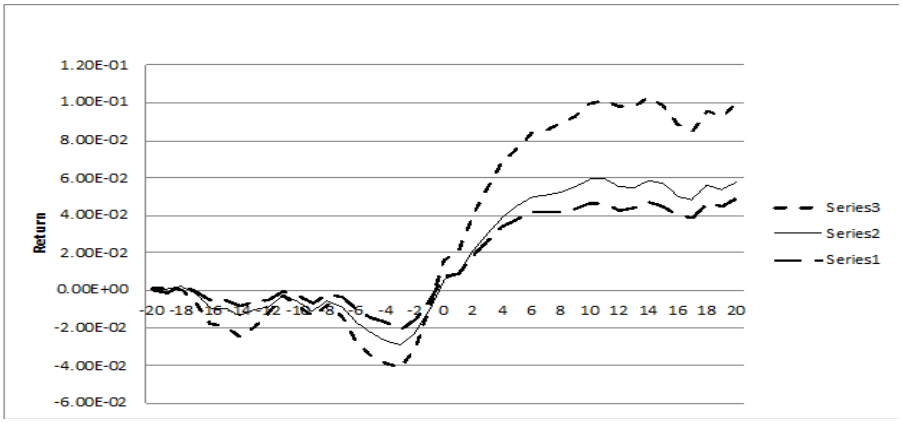
Table 3 Regression of Abnormal Return [CAR (-15, 15)] Realized by the Acquirer and the Portfolio of Other Firms in the Group

	Model 1	Model 2
Independent variables	CAR_p (-15, 15)	CAR_p (-2, 2)
Intercept	0.082	0.042**
	(.045)	(0.016)
CAR_i	0.030	0.191**
	(.040)	(0.078)
CFTA	-0.091	0.019
	(0.080)	(0.013)
$RETURN_{adj}$	-0.029	0.007
	(0.126)	(0.045)
CFR	0.055	-0.006
	(0.036)	(0.0131)
MVE	-0.018	-0.006**
	(0.008)	(0.003)
LISTED	0.023	0.010
	(0.016)	(0.006)
RELATED	-0.029	-0.004
	(0.017)	(0.006)
AGE	0.0110	-0.000
	(0.089)	(0.003)
Adjusted R-square	0.027	0.071
F- value	1.45	2.23**
No. of observations	145	145

*, **, and *** represents the significance level at 10, 5, and 1 percent level respectively
The acquirer's abnormal returns for 31-days and 5-days are given in the panel as against model 1 and model 2.
The standard error values are given in the parenthesis.

median CFTA, i.e., acquirers with inferior managerial efficiency. The prevailing view that well performing managers make good acquisitions (Morck et al., 1990; Servaes, 1991; Kang et al., 2000) is not supported by Bae et al. (2002). Our results in Table 4 find support to contradict tunneling view given by Bae et al. (2002) as the return is positive and significant for both subsamples, i.e., below and above median CFTA. Therefore, the results find support for managerial efficiency view that acquirers with good past performance makes good acquisitions. When partition the sample according to the above and below median ownership by the controlling owner variable *(OWNER),* the mean return is positive and significant for both subsamples. The difference between the two is not significant. The median return is positive and significant for below median ownership group acquirers but not significant for above median group acquirers. The acquirer's size estimated by the market value of equity (MVE) considered to analyze the effect on return. The results confirm that, while the acquirers below their median size have positive average return 10.01% significant at 1 percent level, the large size acquirer's average return is not significant. The next crite-

Fig. 2 The Cumulative Average Abnormal Return Around the Announcement Day.



Note: Series 1return line for acquirer, series 2 return line is for group firms excluding acquirer, and series 3 return line is for group firms including acquirer.

rion explaining the return is listing status of the target firms. When both the target and bidder are listed (LISTED) the chances of tunneling are less as market can view both the firms due to more disclosure and regulatory requirements. So, the return expected should be positive. In our case, when the sample is partitioned according to the listing status, the return is not significant for listed bidder and target deals but, the average return is positive for unlisted target deals. This negates the possibilities of tunneling for the unlisted target deals. The intra-group mergers can happen in the same industry to help other member firms and therefore tunneling can be priced by market. A negative return for related deals should confirm the tunneling while a positive return should confirm the value-added hypothesis. The reason for negative reaction to related deal is that *ex-ante* market will sense the same industry deals as resource transfer activity from acquirer to target and therefore the acquirer return should be negative due to adverse price reaction. In the sample partitioned based on the industry relatedness (RELATED), the average return is found to be positive and significant for both the related deals and unrelated deals. This result confirms the support for value added hypothesis. The relative size (RELATIVE_SIZE) is also an important determinant to explain the acquirer returns. This is estimated as the target book value equity to acquirer book value of equity. For the large RELATIVE_SIZE firms, the market 's favorable reaction (positive return) confirms the value-added view. If the market reacts negatively, i.e., it considers the bidder's deal as an attempt to exercise more control, the tunneling hypothesis is verified. From the table, a positive average and significant return results confirm the support for the value-added hypothesis.

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Table 4 Sample Classification as per the Acquirer Characteristics & Cumulative Abnormal Returns [CAR_i (-15, 15)] Around the Merger Announcement Date

Acquirer Characteristics		Mean CAR (-15, 15): % (p-value) [t-test for equality]	Median CAR (-15, 15): % (p-value) [Wilcoxon Z-test for equality]
CFTA			
Above median sample	73	3.212**	2.367*
		(0.03)	(0.08)
Below median sample	73	5.862**	5.485***
		(0.03)	(0.00)
		[0.86]	[0.93]
$Return_{adj}$			
Above zero	126	4.301***	3.105***
		(0.00)	(0.00)
Below zero	20	6.028	3.787
		(0.25)	(0.63)
		[0.48]	[0.22]
OWNER			
Above median sample	72	3.811*	0.465
		(0.08)	(0.14)
Below median sample	74	5.239**	5.278***
		(0.01)	(0.00)
		[0.32]	[1.16]
MVE			
Above median sample	73	-1.001	0.251*
		(0.63)	(0.08)
Below median sample	73	10.011***	8.178***
		(0.00)	(0.00)
		[4.10]***	[3.48]***
LISTED			
Listed target sample	54	3.283	2.349
		(0.17)	(0.24)
Unlisted target sample	92	5.275***	4.516***
		(0.01)	(0.00)
		[0.29]	[0.53]
RELATED			
Related industry sample	109	3.502*	2.722***
		(0.06)	(0.02)
Different industry (Unrelated)	37	7.592***	5.485***
		(0.00)	(0.00)
		[1.16]	[0.97]
RELATIVE_SIZE			
Above median sample	56	6.741***	4.516***
		(0.00)	(0.00)
Below median sample	90	3.168	2.731**
		(0.11)	(0.02)
		[0.97]	[0.35]

*, **, and *** Significance at 10 %, 5%, and 1% levels, respectively
The values in the bracket () are p-values. The values in bracket [] are the t-test and Z-test value for equality of mean and median, respectively.

Acquirer's Return Analysis by Group Category & Past Performance

The CAR analysis results by group affiliation TFBG and OBG based on past performance is presented in Table 5. There are two views which explain the acquirers' abnormal return. The value-added view suggests acquirers with good past performance share resources effectively and generate synergy. Market reacts positively for such acquirer's acquisition announcement. Tunneling view suggests acquirers with good past performance tend to divert resources to other firms to expropriate minority investors. Market views and reacts negatively when such acquirers announce to acquire other member group firms. Therefore, a positive return is expected under value added view and negative return under the tunneling view. In panel A of Table 5, the return is negative for high CFTA acquirers and positive for low CFTA acquirers affiliated from TFBG. The return result is not significant. For OBG category acquirers, the return is positive and significant for high and low CFTA acquirers. Based on $RETURN_{adj}$, the average return values are positive for acquirers with high past performance history. The return is not significant for TFBG acquirers but significant for OBG acquirers. The return values are not significant for below median $RETURN_{adj}$ except the median return under OBG acquirers. Based on group affiliation, the return is positive and significant for OBG category acquirers and for TFBG acquirers result does not have statistical significance. A comparison signifies that TFBG acquirers underperform OBG acquirers. In contrast, for acquirers with low performance, return results have insufficient statistical significance. Overall test results confirm market's value-added view in intra-group deals for business groups in India.

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Abnormal Return Classification Based on Rescue/non-rescue Criteria

Another way to examine the tunneling or value added views is to classify the abnormal returns based on the rescue and non-rescue merger criteria. We consider those mergers as rescue in which target has consistently negative performance for past five years. When we adopt this criterion, we found that out of 145 merger events, 87 are rescue mergers while 58 are non-rescue type. In rescue mergers, 61 belong to TFBG category while 26 are from OBG category. In the case of non-rescue merger, 27 are form TFBG and 31 from OBG group category. Test results are available in Table 6. The return result is positive and significant for OBG acquirer's category irrespective of the deal being a rescue or non-rescue merger. However, return values are not significant for TFBG. Based on this classification criteria results supports the value-added view and lack support for tunneling view.

Table 5 Cumulative Average Abnormal Returns [CAR_i (-15, 15)] Classified by Group Affiliation & Acquirer Performance Prior to Merger

Panel A CAR_i (%) by Cash Flow to Total Assets & Group Affiliation							
	Acquirers from TFBG (A)			Acquirers from OBG (B)		Test of difference (A – B)	
							Wilcoxon
CFTA	Mean	Median	Mean	Median		*t*- test	*z*- test
Above sample median	-0.578	-0.506	10.213***	11.031***		0.01	0
	(0.74)	(0.61)	(0.00)	(0.00)			
	[44]		[39]				
Below sample median	1.317	0.132	12.612***	11.031***		0.05	0.03
	(0.61)	(0.58)	(0.02)	(0.00)			
	[45]		[18]				
Test of difference							
t- test	0.71		0.68				
Wilcoxon z- test		0.89		0.91			
Panel B: CAR_i (%) by Industry-Adjusted Excess Returns & Group Affiliation							
$RETURN_{inds}$	Mean	Median	Mean	Median		t- test	z- test
Above zero	1.801	0.006	15.101***	11.032***		0.00	0.00
	(0.42)	(0.65)	(0.00)	(0.00)			
	[45]		[30]				
Below zero	-1.112	0.101	6.512	11.031***		0.23	0.15
	(0.61)	(0.52)	(0.20)	(0.01)			
	[44]		[27]				
Test of difference							
t- test	0.37		0.23				
Wilcoxon z- test		0.54		0.09			

*, **, and *** Significance at the 10 %, 5%, and 1% level, respectively

The values in the bracket () are p-values. The values in bracket [] are the number of events for acquirers affiliated to TFBG and OBG.

Table 6 Cumulative Abnormal Returns [CAR_i (-15, 15)] Classified by Rescue Merger and Group Affiliation

CAR_i (%) by Rescue Merger & Group Affiliation								
	Acquirers from TFBG (A)			Acquirers from OBG (B)			Test of difference (A – B)	
								Wilcoxon
Rescue / Non-rescue	Mean		Median	Mean		Median	*t*- test	*z*- test
Rescue merger	-0.301		1.012	13.313***		11.712***	0.01	0.01
	(0.91)		(0.75)	(0.00)		(0.00)		
		[61]			[26]			
Non-rescue merger	1.612		-1.012	9.112***		11.711***	0.25	0.06
	(0.41)		(0.54)	(0.06)		(0.00)		
		[27]			[31]			
Test of difference								
t-test	0.94			0.34				
Wilcoxon *z*-test			0.86			0.51		

*, **, and *** Significance at the 10, 5, and 1 percent level, respectively
The values in the bracket () are p-values. The values in bracket [] are the number of events for acquirers affiliated to TFBG and OBG.

Conclusion

This study empirically examines and compares the two competing views – value added versus tunneling for the group affiliated firms in India. While one group of studies documents that rent seeking behavior ~~is~~ due to intra-group transactions not at market price, i.e. tunneling is verified, others confirm such intra-group deals as synergy and value-added deals. This study considers intra-group *M&A* deals in a group as an event and estimates market reaction on the event to compare the two hypotheses. Study results find support for positive abnormal return, i.e. market perceives intra-group deals as value added ones. The regression results confirm that market viewed intra-group positively and appreciated the groups' return in aggregate around acquirer's deal announcement. The results are further verified when the sample is partitioned on various financial characteristics of acquirer, group affiliation, and categorizing the deals as rescue and non-rescue types. The result confirms the prediction efficacy of the intra-group deals which the investor

Study results find support for positive abnormal return, i.e. market perceives intra-group deals as value added ones.

community can consider while making investment decisions. As future research dimension, suggestion is to consider the role of board of directors and auditors in preparing for the deals.

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