Firm-Political Connections: A Resource Based View Analysis

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Abstract

This paper analysis the firm-politician alliance in the light of Resource Based View (RBV) and empirical estimation. We extend the RBV with network resources to include their sharing cost and computes the optimum appropriated relational rents (ARR). The model estimates optimum ARR for both dyadic and multi-party alliance along with a conditional shift from former to later. Further, it shows that there is a positive spillover effect of focal's shift from dyadic to multi-party alliance on the former aligned partner. Empirically, the results for Indian firms vindicate the significance of multi-party alliance in a federal system. Consequently, the paper provides optimum relationship rents along with emphasis on the nature of relationship and its effect on both the firm and the party in alliance with it.

Keywords: Resource Based View; Political connections; Optimum relational rents; India

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1 Introduction

Firms enter into alliances in various forms like Mergers and Acquisitions, Joint-Ventures etc. However, the idea of Firm-Politician alliance does not pertinent with the mentioned ones. The theory of firm-politician connection does not follow any underline rule to persist but there existence increases firm's value is shown by numerous studies (Fisman, 2001; khwaja and Mian, 2005; Faccio, 2006, Cooper et al., 2010; Su and Fung, 2013). The determination of the value of political alliance for a firm possesses various difficulties which probably leads to theoretical insufficiency in this area. These difficulties are not only confined to firm specific factors but also include country specific, institution specific factors. According to Fisman (2001), for a decentralized country estimating connections require information with numerous decision making bodies. This makes the valuation of political connectedness a very complex proposition. Similarly, institutional differences like countries with high corruption levels are expected to give higher returns for political alliance to the firms as compared to countries with lower corruption standards. Thus, the link between political connections and firm's value is although well established but there is no agreed upon theory to clearly describe a firm-politician connection (Getz, 2001) due to its exposure to numerous factors.

The main purpose of this study is to gauge the effect of firm-politician alliance from both theoretical as well as empirical techniques. The study extends the resource based view (RBV) to analyze the firm-politician alliance along with cost consideration and optimum relational rents. RBV is one of the traditional strategic management theories that evolved overtime, suggests a firm gains sustainable competitive advantage from the value, rarity, imperfect imitability and imperfect substitutability of their resources (Barney, 1991). Lately, RBV has been used in the study of alliances withholding the traditional assumption for resource heterogeneity, ownership and control by various researchers (Wernerfelt, 1984; Barney, 1991; Amit and Schoemaker, 1993, Das and Teng, 2000; Lavie, 2006). According to Conner (1991), the firm's performance is not only a result of simultaneous interaction of its own resources but also the resources of its competitors as well as the public policy environment. Thus, on the same note this study looks at the effect of firm-politician alliance on the focal firm considering the rare and imitable resources of both the parties. Also, the resource heterogeneity is considered a reasonable aspect for the parties to enter into an alliance and earn abnormal rents.

We extend to theory building on the basis of this resource sharing perspective of the firms to earn higher rents. However, its not the resources but their services generate the value to the firm (Penrose, 1959). For a politically aligned firm (PAF) its political connection is a resource owned by it which leads to a sustained competitive advantage in the form of various services. Like, easy access to bank loans (Khwaja and Mian, 2005), protection from property rights (Zhou, 2013), lower tax payments (Adhikari et al., 2006; Wu et al., 2012; Faccio, 2010)

and higher bailouts at the time crises (Blau et al., 2013). Our model identifies the optimum ARR for the focal firm generated from its political alliance. Thus, the study extends the RBV to incorporate the network resources of two aligned parties which are not necessarily firms with the inclusion of the cost of sharing resources. Considering no cost for extracting rents through alliance networks is one of the major limitation of RBV, also mentioned by Lavie (2006), which the current study takes care of.

Additionally, a conditional shift of the focal from dyadic to multi-party alliance is identified in the model. It shows that the firm will enter into a multi-party alliance with its rare and limited resources if the appropriate factor from the additional alliance is sufficiently high as compared to the lost rents with the former alliance due to additional sharing. Further, the paper concludes that the nature of relationship matters not only to the focal but also to the party in alliance with it. The model shows the positive effect of focal's shift from dyadic to muti-party alliance on the former aligned partner.

Next, rather than using RBV as the only tool to indicate the persistence of ARR for firms in an alliance with the politician, we use empirical techniques too. Empirically, the study shows the precedence for muti-party alliance of Indian firms (over dyadic). Thus, the application of theoretical extension indicates the presence of positive spillover effect of Indian firms entering into a multi-party alliance on the former aligned politician.

The rest of the paper is organized as follows: Section 2 describes literature review followed by analytical framework in Section 3. Section 4 presents data and empirical specification. Section 5 describes results and Section 6 concludes.

2 Literature Review

2.1 Background of RBV

One of the most influential tool in strategic management literature, RBV, first high-lighted by Penrose (1959) where firms are heterogeneous entities own distinct resources. The idea of RBV was latter developed by Dierickx and Cool (1989) who argued that for a firm's competitive advantage or to earn abnormal rents the resources must be non-tradable, nonsubstitutable and rare. Thus, the study associates the nature of resources to the competitive advantage of firms. The phenomenon was further enhanced by Barney (1991) who provided four characterstics of potential resources to generate sustained competitive advantage. These characterstics include value, rareness, imitability and substitutability. Further, Harrisson et al. (1991) showed that resources complementarity as compared to their subsitutability is associated to the firm's gain. In case of an alliance, a firm can access complementary resources without long term commitment as seen in acquisitions. Thus, the study focuses on the complementary

relationship of resources owned by two distinct parties to undertake an alliance for larger gains. This idea was supported in economics literature by Lockett and Thompson (2001). The study shows that there is a limited use of RBV in economics with potential areas left including agency theory especially in relation to corporate governance, dynamic theory of RBV and in explaining the radical changes. Another aspect for the nature of resources is given by Castanias and Helfat (2001). The study argued that the rare managerial resources do not by definition generate rents especially in case of misdirection. The paper suggests that to generate rents the nature of resources may need to change with the life cycle of the firm.

Additionally, the RBV aspect is used in various theories on firm's performance. Crook et al. (2008) find a substantial correlation between firm's performance and the extent of value and rarity of resources. Where as Newbert (2007) argued that RBV has only received modest support all over to define a significant impact on firm's performance. These substantial abnormal rents can be achieved by firms through various ways including firm's monopolistic position over the resource in the market (Peteraf, 1993) or by making firm specific investments (FSI). According to Wang and Barney (2006), the unique resources essential for firm's performance are often created by the key stakeholder FSIs. But, how to incentivize stakeholders to make FSIs is an important aspect of RBV and researchers tried to solve this stakeholder-FSI dilemma. Thus, the creation of abnormal rents through different channels is another aspect of RBV that is seen by researchers in recent years.

This view further invites an investigation of the abnormal rents generated through an alliance where the focal firm share its limited available resources. In this regard, our article contributes to the RBV by estimating the optimum ARR when two parties and three parties enter into a dyadic and multi-party alliance respectively. In this study, we provide optimum ARR function along with the conditional analysis to shift from dyadic to multi-party alliance.

2.2 RBV and Firm-Political Alliance

Since the past three decades there is a proliferation of studies in business political strategy and increasing significance for positive alliance effect from both theoretical and empirical perspective (Epstein, 1980; Shleifer and Vishny, 1994; Kroszner and Stratmann, 1998; Khwaja and Mian, 2005; Leuz and Oberholzer-Gee, 2006; Faccio, 2006; Claessens et al., 2008; Faccio, 2010; Cooper et al., 2010; Su and Fung, 2013). However, in a firm-politician alliance or in public affairs, there is no agreed upon theory with several coexisting models at the same time (Geetz, 2001). For Example, according to Shleifer and Vishny (1994) when managers control firms, politicians use subsidies and bribes to convince them to pursue political objectives and when politicians control firms managers use bribes to convince them not to push firms to pursue their political goals. Thus, the study focuses on the two way effect of the alliance. Various studies followed

similar or different paradigm to define a firm-politician alliance which is further examined in different forms named favoritism, corruption, and crony capitalism.

Different political-business alliance studies focused on different questions or effects of the alliance for various countries like Khwaja and Mian (2005) estimate the effect of firm-politician alliance over Pakistan's bank defaults; Leuz and Oberholzer-Gee (2006) find that politically connected Indonesian firms are more leveraged and less likely to have publicly traded foreign securities; Blau et al. (2013) find that politically aligned US firms were not only more likely to receive 2008 Troubled Asset Relief Program (TARP) but also a higher amount as compared to non-aligned firms. Thus, the literature has evolved independently with no follow up of a particularly defined traditional theory. Various studies used distinct theories to explain firm-political strategy includes game theory in economics, transaction cost economics, social network theories in management, resource dependence theory in sociology and agency theory in management. Specifically, the resource dependence theory suggests that one organization's dependence over another for essential resources is a key factor for its strategy development. In a firm-political relationship, the firm gets a preferential treatment due to its resource contribution to influence the public policy.

In strategic management literature, the alliance formation has received considerable attention in recent years. The Resource Based View (RBV) is one of the prominent theories used by Lavie (2006) to theoretically analyze the competitive advantage (CA) of firms entering into an alliance. On similar lines, this study extends the Firm-Political alliance analytically towards resource sharing perspective rather than traditional product perspective considering their complementary relationship for larger gains as mentioned by Harrisson et al. (1991). Thus, the study theoretically builds the analytical gap between the mainstream studies of firm-politician alliance and RBV.

However, in our case the RBV cannot be the only basis to indicate the CA of firms entering into a political alliance. We have further used empirical tools to indicate the benefits of this alliance in case of India. The study theoretically underlines certain conditions for a firm to switch from dyadic to multi-party alliance and empirically justifies the prevalence and advantages of the latter in India. The model provides optimum CA function for ARR for both dyadic and multi-party alliance. Further, the study illustrates that in a multi-party alliance in case of limited sharing resources with the focal there is a positive spillover effect or increase in bargaining power of the first aligned party.

According to the concept of RBV, the value and rarity of heterogeneous resources owned by firms is a source of their sustainable competitive advantage (Barney, 1991). This study undertakes political connections as a firm's resource which may lead to their abnormal rents. Till now, RBV is majorly used to look at the alliance creation among firms and the extent of CA from such alliances in context of mergers and acquisitions, joint ventures etc. In this study, we look at the effect of an alliance between a firm and a politician on firm's relational rent

using both theoretical and quantitative techniques. We find that the optimum ARR from the alliance decreases if its expensive for firms to share resources due to inverse price quantity relationship. Besides, we also find that a firm will form a relationship with more than one politician and enjoys higher CA if the proportionate benefit from an additional alliance is sufficiently large. The ARR from the alliance decreases if the firm share more expensive resources due to inverse price quantity relationship. The model additionally concludes that there is an increase in bargaining power of the politician in a federal system, with whom firm was in a dyadic alliance, when this firm enters into an multi-party alliance with its limited sharing resources. This indicates a positive spillover effect of firm's actions on the politicians in a federal system.

3 Analytical Framework

Consider 2 parties a firm i and a politician j who enter into a dyadic alliance. Following Lavie (2006), the resources owned by the firm are denoted by $R_i = S_i \bigcup N_i$ where R_i represents total resources owned by firm i, S_i denotes the resources that the firm is ready to share and N_i are the non-sharing resources. The set of shared resources are represented as $S_i = [r_1, r_2, ..., r_s]$ and the set of non-shared resources is $N_i = [r_{s+1}, r_{s+2}, ..., r_n]$. Similarly, the resources for politician can be written as $S_j = [r_1, r_2, ..., r_l]$ and $N_j = [r_{l+1}, r_{l+2}, ..., r_m]$. $V(R)$ is a function which denotes the combined effect of value and rarity of resources. The firm decides to keep some of its resources for sharing with the politician and in return the politician shares some resources with the firm. Thus, the firm and politician will enter into a dyadic alliance where both the parties share some resources for mutual benefits. The alliance formation of a firm will provide certain direct and indirect benefits to the firm as well as to the politician. Total comparative advantage of the firm after forming an alliance is a sum of internal rent, appropriated relational rents, inbound spillover rents and outbound spillover rent which is as follows (refer Lavie (2006) for detailed discussion):

$$CA_i = \sum_{\rho=1}^{n} V_1(r_\rho | R_i^{-\rho} \bigcup R_j) + \alpha V_2(S_i \bigcup S_j) + [a_i V3(S_j) + a_i/b_j V_4(N_j)] \quad (1)$$

$$+[-a_j V_5(S_j) - a_j/b_i V_6(N_i)] \quad (2)$$

where i stands for the firm and j stands for the politician. $R_i^{-\rho}$ is a set of resources except resource r_ρ. α is the relation-specific appropriation factor. a_i is the firm-specific appropriation factor and b_i represents the partner-specific isolating mechanism. Similarly, we can define a_j and b_j.

3.1 Dyadic Alliance

This study will specifically look at the ARR from sharing resources between i and j in detail, which is denoted by CA_2. Thus, for firm i CA_2 will be as follows

$$CA_i^2 = \alpha V_2(S_i \bigcup S_j) \tag{3}$$

Next, before, going further we will make certain assumptions which are as follows:

- S_i and S_j are mutually exclusive sets.
- $S_i = \{s_1, s_2\}$ and $S_j = \{r_1, r_2\}$.
- For a dyadic alliance, firm will share S_i i.e. $\{s_1, s_2\}$ with the politician j.
- However, in case of alliance with more than one party, say k is another politician, the firm will share S_i resources with both the parties.
- The value contribution of the shared resources in combination of both firm and politician is unknown i.e. α is unknown. How much of the resource contribution of each party, when combined together, adds to the total appropriated relational rents generated from sharing?
- The function of value and rarity of resources is a Cobb-Douglas Increasing returns to scale (IRS) function for both firm and politician as it is assumed that overall value from sharing increases with a higher proportion as the shared resources increases. So, $V(s_i) = s_1 s_2$ and $V(s_j) = r_1 r_2$.

Thus, the total comparative advantage of sharing resources (CA_2) or ARR between a firm and a politician is

$$V_2(S_i \bigcup S_j) = \alpha(s_1 s_2) + (1 - \alpha)(r_1 r_2) \tag{4}$$

Note, that here we used α to denote the value creation from contribution of the resources shared by firm i in total relational value through alliance. However, in eq.(3) the study shows the share of firm i in ARR. Both are same as a firm will get what it creates or contributes.

3.2 Cost

The studies till now has not included the cost of sharing resources which we will be considering in our paper as a linear function i.e. $C_1 = \sum_{i=1}^{2} w_i s_i$ for firm i where w_i stands for the cost of sharing resources borne by the firm. Similarly, cost of sharing resources borne by the politician j is $C_2 = \sum_{j=1}^{2} w_j' r_j$

Thus, net CA_2 is:

$$CA_2 = \alpha s_1 s_2 + (1-\alpha) r_1 r_2 - C_1 - C_2 \tag{5}$$

$$CA_2 = \alpha s_1 s_2 + (1-\alpha) r_1 r_2 - w_1 s_1 - w_2 s_2 - w_1' r_1 - w_2' r_2 \tag{6}$$

Now, the optimum sharing of resources when the firm and the politician enter into a dyadic alliance is computed by maximizing the total ARR which is as follows:

$$\begin{aligned} \underset{s_i, s_j}{\text{maximize}} \quad & CA_2 \\ \text{subject to} \quad & w_1 s_1 + w_2 s_2 \leq C_1, \\ & w_1' r_1 + w_2' r_2 \leq C_2, \\ & w_1 \geq 0, w_2 \geq 0, w_1' \geq 0, w_2' \geq 0 \end{aligned}$$

After solving the Lagrange (see Appendix), the firm will choose following s_1 and s_2

$$s_1^* = \frac{C_1}{2w_1} \qquad and \qquad s_2^* = \frac{C_1}{2w_2} \tag{7}$$

and the politician will choose the following r_1 and r_2

$$r_1^* = \frac{C_2}{2w_1'} \qquad and \qquad r_2^* = \frac{C_2}{2w_2'} \tag{8}$$

implies

$$CA_2^* = \frac{\alpha C_1^2}{4w_1 w_2} + \frac{(1-\alpha) C_2^2}{4w_1' w_2'} \tag{9}$$

and the net CA_2 will be

$$CA_2^* = \frac{\alpha C_1^2}{4w_1 w_2} + \frac{(1-\alpha) C_2^2}{4w_1' w_2'} - C_1 - C_2 \tag{10}$$

This leads us to our first proposition:

Proposition 1: The appropriate relationship rent from a dyadic alliance decreases if its expensive to share resources as the sharing will be less due to inverse relationship between resources and their price.

Thus, the proposition clearly indicates the impact of the cost of sharing resources on the optimum ARR generated from a dyadic alliance which will negatively effect the optimum CA_2. However, in line with the assumption of the value and rarity of resources, it may also be expected that the rare and valuable resources are expensive to share due to their unique characteristics which makes them scare.

3.3 Multi-partner Alliance

In a multi-partner network, the firm i will enter into an alliance with politicians j and k. Now, the total comparative advantage will be

$$CA_2^{'} = \beta s_1 s_2 + (1-\beta) r_1 r_2 + \delta s_1 s_2 + (1-\delta) k_1 k_2 \tag{11}$$

For Optimum in a multi-partner alliance,

$$\begin{aligned} \underset{s_i, s_j}{\text{maximize}} \quad & CA_2^{'} \\ \text{subject to} \quad & w_1 s_1 + w_2 s_2 \leq C_1, \\ & w_1' r_1 + w_2' r_2 \leq C_2, \\ & w_1'' k_1 + w_2'' k_2 \leq C_3, \\ & w_1 \geq 0, w_2 \geq 0, w_1' \geq 0, w_2' \geq 0 \end{aligned}$$

After solving the Lagrange (see Appendix for proof),

$$CA_2^{'*} = \beta \frac{C_1^2}{4 w_1 w_2} + (1-\beta) \frac{C_2^2}{4 w_1' w_2'} + \delta \frac{C_1^2}{4 w_1 w_2} + (1-\delta) \frac{C_3^2}{4 w_1'' w_2''} \tag{12}$$

and net $CA_2^{'*}$ is

$$CA_2^{'*} = \beta \frac{C_1^2}{4 w_1 w_2} + (1-\beta) \frac{C_2^2}{4 w_1' w_2'} + \delta \frac{C_1^2}{4 w_1 w_2} + (1-\delta) \frac{C_3^2}{4 w_1'' w_2''} - C_1 - C_2 - C_3 \tag{13}$$

implies

$$CA_2^{'*} - CA_2^{*} = \frac{(\beta + \delta - \alpha) C_1^2}{4 w_1 w_2} + \frac{(1-\beta) - (1-\alpha) C_2^2}{4 w_1' w_2'} + \frac{(1-\delta) C_3^2}{4 w_1'' w_2''} \tag{14}$$

For $(CA_2^{i'*} - CA_2^{i*}) \geq 0$, $\beta + \delta \geq \alpha$ which means that the focal party will enter into an additional alliance only if the appropriation factor of this alliance is higher than the factor forgone from the dyadic alliance. Thus, the proportionate benefit of sharing limited resources with an additional party must be

higher than the decrease in benefits from the existing alliance. This leads us to our second proposition:

Proposition 2: Under the limited share resource multi-partner alliance, a firm needs sufficiently high proportionate returns from an additional alliance to share its limited resources as compared to the appropriation factor lost with the former alliance due to additional sharing.

The intuition of this proposition can further be seen from the politician side. When focal firm decides to share its limited resources with another party then there must be sufficient advantage for the first party to maintain its relationship with the focal. This indicates that not even the focal but also the first party should enjoy from this additional alliance. For $(CA_2^{i'*} - CA_2^{i*}) \geq 0$, $(1-\beta) \geq (1-\alpha)$ which shows higher appropriation factor for the first party due to its relatively high resource sharing. Thus, actually it is beneficial for the first party that focal firm maintains relationship with more than one party as it increases the bargaining power of the former (required for the alliance subsistence). The corollary concerning this optimization is given by

Corollary 3: Under multi-party alliance the appropriation factor of the first party increases as compared to its dyadic alliance, indicating a positive spillover effect of focal firm's additional alliance.

The study claims that benefits from an additional alliance along with the existent shows the available alliance-profitability margin for all parties in the market. Next, we will look at the empirical part to further test the implications of our model in case of India.

4 Data and Empirical Specification

The study uses data from Centre for Monitoring Indian Economy (CMIE) ProwessIQ and Thomson Reuters DataStream database for S&P BSE500 firms from 2002 to 2015 (excluding financial firms). Our sample size is of 5,852 firm-years. For political contributions, we use publically available data at the website of Election Commission of India and also provided by Association for Democratic Reforms (ADR).

In 1999, a Public Interest Litigation (PIL) was filed in the apex court of India which made it obligatory for all the candidates to disclose their educational, financial and criminal records while filing nominations before elections to maintain transparency in the system. Along with candidates, political parties also need to submit their financial details including the name of the donor, their mode of payment, etc. for receiving funds over $310.40. There are seven national political parties in India from which only two are the most influential

i.e. Bhartiya Janta Party (BJP) and Indian National Congress (INC). Till now, only these two parties hold power in the Central government of India including the period of study. Thus, we use contributions data only for these two parties.

Our main variable of interest is political connection as represented by POL_i in equation 15. We use firm's political contributions as a proxy perceiving a firm to be politically aligned if atleast once the firm or its subsidiary contributed to any of the political party. Firms contributing to a single political party are assumed to be in a dyadic alliance where as those contributing to both the parties are in a multi-party alliance.

Table 1 provides the summary of our connection attributes for different firm's categories. About 26.3% of the full sample is in alliance with political parties through campaign contribution. However, at disaggregate level about 43% of large-cap, 28% of mid-cap and 20% of small-cap firms are in alliance with political parties. This shows the extent of prevalence of alliance at different levels in the market. These numbers change at both aggregate and disaggregate level with the dyadic and multi-party alliances. For large-cap firms we have mainly seen multi-party alliance with approximately 39% of these firms. Similarly in case of mid-cap firms where 22% of the total 28% of firms are in multi-party alliance. The effect of these differences among firms and their alliance preference is latter seen in Section 6 with the effect on their performance attributes.

Table 2 provides the summary of our estimated sample. On an average each sample firm receive 0.176 million (Rs.) subsidies and grants. These number are higher for those who are in a multi-party alliance indicating the prevalence of Proposition 2 and Corollary 3 in the federal system. Similarly in case of Long_term_debt and PAT, numbers for a multi-party alliance overreach the dyadic alliance implying the preference of firms entering into a political alliance. This outshoot is expected in a federal system which additionally shows the extent of prevalence of Business-Politician nexus in India. The table additionally reports the mean values for other control variables used in the empirical estimation. Next, Table 3 showcases the statistically significant difference in performance indicators between the firms in a dyadic and multi-party alliance. The difference in variables for aligned and non-aligned firms remain statistically significant with an exception for subsidies & grants. Firms in a political alliance enjoy higher long_term_debt, more PAT and higher leverage as compared to firms with no alliance at all. Thus, preliminary results are in line with the hypothesis of higher ARR for firms in a political alliance with larger gains for multi-party connections.

Empirically, regression modelling will help us to test our analytic specifications regarding the effect of Firm-Politician alliance. However, with the heterogeneity of firms and limited evidence for the type of resources shared by both the parties, we can only provide suggestive confirmation to our theoretical findings. The study used panel data modelling over a period of 14 years for a

firm's alliance with politicians at various degrees i.e. dyadic and multi-partner alliance with the following specification:

$$Y_{it} = \gamma_0 + \gamma_1 POL_i + \gamma_2 State_i + \gamma_3 Firm\_Attributes_{it} + \gamma_4 Country\_Control_t + \epsilon_{it} \tag{15}$$

where Y_{it} represents various firm's performance indicators used to look at their benefits from Firm-Politician alliance. POL_i is a dummy variable which takes the value 1 if a firm is in an alliance with the politician and 0 otherwise. This is our variable of interest which further includes firm-politician alliance at various degrees. $State_i$ is a dummy variable which takes the value 1 if a firm is state-owned and 0 otherwise. $Firm\_Attributes$ includes various firm controls used in the model. $Country\_Control$ controls the change in opportunistic environment of the emerging economy. Details of all these variables are given in the appendix.

According to the theoretical evidences γ_1 should be positive or negative according to the variable we are concerned i.e. for leverage it should be positive but for tax payments it must be negative. Further, to distinguish the dyadic and multi-partner alliance and to support our analytic results, value of γ_1 must be higher in case of multi-partner alliance as compared to a dyadic alliance.

Note that the distinction of different degrees of political alliance takes care for any endogeneity issues regarding the strength of the alliance. However, while measuring this effect there could be variables like a firm's capacity to form an alliance which can effect our results. Thus, the study further used various firm controls to take care for these issues. This further assist to understand our preposition 2 and 3.

5 Results

Table 4 reports the results from the linear regression equation (15). The alliance of a firm is measured through their campaign contributions which is represented by the variable "Aligned". The results are quite consistent with our theoretical base of positive ARR for firms entering into an alliance. However, we may further elaborate that the resources owned by these two parties are complementary which results in their relationship gain following Harrisson et al. (1991). Model 1 shows the subsidies & grants where PAFs enjoy 16.7% higher subsidies as compared to their non-aligned peers. The coefficient by itself indicates that PAFs have a favourable treatment with the mentioned extent in Indian markets.

Model (2) presents the effect of political alliance over the long-term credit access of firms and indicates that PAFs have a 24% higher long-term debt as compared to non-politically aligned firms (NPAFs). These results are consistent with Dinc (2005); Khwaja and Mian (2005) who find that politically-connected firms have higher access to credit as compare to their counterparts and these benefits are mainly in case of long-term debt. Another reason to look at the firm's long-term debt is that PAFs mainly prefer long-term credit as it gives them leverage to

delay payments or ask for write offs as compared to short-term loans.

Model (3) shows the extent of profitability gains enjoyed by firms through their political alliance. PAT for PAFs is approximately 20% higher as compared to NPAFs which provides an evidence of prevailing business-politician relationship. In literature, Mobarak and Purbasari (2006) confirm the positive effect of political connections over firm's profitability. Model (4) shows that PAFs have a higher leverage of 2.6% as compared to NPAFs. These results are consistent with extensive prior studies including Cull and Xu (2005) and Boubakri et al. (2012).

Thus, in essence to the above mentioned results the study indicates that there is a positive effect of firm-politician alliance with higher returns for the focal. Theoretically, we have already estimated that the optimum ARR for the focal firm entering into an alliance and empirically we justified its prevalence in Indian markets. Next, we will look at the difference between dyadic and multi-party alliance or the strength of forming alliances with limited resources (as already assumed).

Table 5 reports the returns from both dyadic and multi-party alliance. These results will present that whether Indian firms earn sufficiently high proportionate rents from more than one alliance to compensate its appropriation factor lost with the former or not, assuming limited resources. Thus, the results will examine the prevalence of sufficiently high condition for Indian firms through their performance indicators as mentioned in Proposition 2. The Dyadic alliance and Multi-party alliance are represented by Aligned_one and Aligned_both respectively in the table. These results suggest that firm-politician dyadic alliance in case of India remain low or insignificant for some variables indicating the opportunity to enter into a multi-party alliance. Thus, the firms in a multi-party alliance are earning high ARR as compared to those in a dyadic alliance. The rents are estimated through four performance indicators where firms in a multi-party alliance enjoys higher subsidies and grants, more long-term credit access, higher profitability and leverage as compared to their non-aligned counterparts. Consequently, as mentioned in Proposition 2, $\beta+\delta$ are the appropriation factors of the focal firm for entering into a multi-party alliance after sharing its limited resources which are campaign contributions that the firm is sharing with the politician from all the available funds. Thus, the appropriation factor from such sharing in case of first performance indicator is 0.167 or 16.7% which is actually greater than the insignificant returns from a dyadic alliance. Similarly, in case of long-term credit access where 15.9% for a multi-party alliance is higher than 14.5% in case of a dyadic alliance. Likewise, in case of PAT and leverage firms in a multi-party alliance are better off as compared to those in a dyadic alliance.

Accordingly, the results conclude that with a broader definition for alliance creation, the outcome remains weak as compared to a precise definition (Su and Fung (2013)). A precise definition actually presents the appropriation difference between dyadic and multi-party alliance and indicates the significance for both

among Indian firms.

6 Conclusion

Overall the study proposes an optimal extension to the RBV which further helps to fill the gap between RBV and theories on alliance. This gap is substantial as political alliance add to the firm's rare resources owned by it which generates ARR to these firms as compared to their non-aligned counter-parts. Actually, the RBV emphasizes on the internal rent creating resources which separates these firms from their alike in the market. The study on firm-political connections mainly emphasized on their effect on firm's performance and the advantages that the firm get, ignoring it as a resource. Also, the RBV studies do not analyze the optimal alliance comparative advantage as well as the state of shifting from dyadic to multi-party alliance. This study analyzes the optimal ARR that the focal firm can attain after forming a dyadic alliance with the politician along with sharing cost consideration. Lavie (2006) mentions the cost of sharing as a limitation of RBV which the current study tries to compensate and further provides the optimal rent that the focal should focus. Additionally, the study provides conditional requirements for a firm to shift from dyadic to multi-party alliance with its limited resources.

This extension actually fills the theoretical gap in the RBV theory by providing not only the optimal ARR for different alliances but also combining them with the theory of political economy. Second, the study provides the empirical estimation of firm-politician dyadic as well as multi-party alliance in case of India. These results are in line with Cooper et al. (2010), Su and Fung (2013) implying the multi-party alliances pay higher returns to Indian firms as compared to dyadic alliance. This is in compliance with Proposition 2 and thus the study can be extended to Corollary 3 on theoretical grounds.

Third, empirical results for Indian firms vindicate the significance of multi-party alliance over the dyadic. Consequently, a theoretical extension to this shows higher bargaining gains to the political parties in India. This shows a positive spillover effect of firm's action on the political parties which they might not be aware of. Although the study has not empirically justified this increase in politician's bargaining power but theoretically attempts to showcase its presence in India. This strategic behaviour of firms and politicians shows the extent of optimal alliance effect on both the parties besides indicating their favourable outcome for Indian firms.

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Tables

Table 1: Different Connection Attributes

	All	Large-cap	Mid-cap	Small-cap
CONTRI	0.263	0.431	0.279	0.206
CONTRI_ONE	0.122	0.103	0.059	0.151
CONTRI_BOTH	0.141	0.328	0.221	0.056

Table 2: Summary Statistics

	All	CONTRI	CONTRI_ONE	CONTRI_TWO
Subsidies & Grants	0.176	0.187	0.150	0.222
Long_term_debt	0.868	0.902	0.894	0.908
PAT	0.419	0.428	0.406	0.446
Leverage	0.031	0.035	0.036	0.034
State	0.093	0.009	0.020	0.000
Operating Exp	9.097	9.419	8.866	9.911
labour	7.975	8.078	7.405	8.519
Total Capital	16.313	16.767	16.233	17.231
GFCF	30.709	30.709	30.709	30.709

Table 3: Difference in Variables for Aligned and Non-Aligned firms

	Non-Aligned	Aligned	Diff (NA-A)	Ha: diff<0 Pr(T<t)	Ha: diff $\neq$ 0 Pr(—T—>—t—)	Ha: diff>0 Pr(T>t)
Subsidies & Grants	0.172	0.187	-0.014	0.126	0.251	0.874
Long_term_debt	0.855	0.901	-0.046	0.000	0.000	1.000
PAT	0.416	0.429	-0.013	0.0003	0.0006	0.9997
Leverage	0.029	0.034	-0.006	0.000	0.000	1.000

Table 4: Regression results for an Alliance

VARIABLES	Model 1	Model 2	Model 3	Model 4
Aligned	0.167***	0.240***	0.196***	0.026**
	(0.038)	(0.081)	(0.049)	(0.011)
State	0.308***	0.167**	0.035	-0.027***
	(0.031)	(0.076)	(0.031)	(0.008)
Operating Exp.	-0.0002	-0.022***	-0.026***	-0.0004
	(0.006)	(0.005)	(0.003)	(0.001)
Labour	-0.017***	-8.82e-05	-0.008***	0.001**
	(0.005)	(0.004)	(0.003)	(0.001)
Total Cap.	0.002	0.038***	-0.028***	-0.001*
	(0.005)	(0.004)	(0.003)	(0.001)
GFCF	-0.036***	-0.048***	-0.052***	-0.002
	(0.012)	(0.011)	(0.006)	(0.002)
Constant	1.262***	1.812***	2.666***	0.084**
	(0.298)	(0.291)	(0.170)	(0.040)
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Obs.	614	2,496	2,692	2,689
R-squared	0.941	0.778	0.832	0.707

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

7 Appendix

7.1 Dyadic Alliance

$$\begin{aligned} \underset{s_i, s_j}{\text{maximize}} \quad & CA_2 \\ \text{subject to} \quad & w_1 s_1 + w_2 s_2 \leq C_1, \\ & w_1' r_1 + w_2' r_2 \leq C_2, \\ & w_1 \geq 0, w_2 \geq 0, w_1' \geq 0, w_2' \geq 0 \end{aligned}$$

Proof: $L = \alpha s_1 s_2 + (1-\alpha) r_1 r_2 + \lambda(C_1 - w_1 s_1 - w_2 s_2) + \mu(C_2 - w_1' r_1 + w_2' r_2)$

$\frac{\delta L}{\delta s_1} = \alpha s_2 + (-\lambda w_1) = 0$
$\frac{\delta L}{\delta s_2} = \alpha s_1 + (-\lambda w_2) = 0$
$\frac{\delta L}{\delta r_1} = (1-\alpha) r_2 + (-\mu w_1) = 0$
$\frac{\delta L}{\delta r_2} = (1-\alpha) r_1 + (-\mu w_2) = 0$
$\frac{\delta L}{\delta \lambda} = C_1 - w_1 s_1 - w_2 s_2 = 0$

Table 5: Regression results for a Dyadic and Multi-Party Alliance

VARIABLES	Model 1	Model 2	Model 3	Model 4
Aligned_one	-0.010	0.145*	-0.013	0.020*
	(0.036)	(0.077)	(0.048)	(0.011)
Aligned_both	0.167***	0.159**	0.173***	0.026**
	(0.038)	(0.077)	(0.048)	(0.011)
State	0.308***	0.167**	0.035	-0.027***
	(0.031)	(0.076)	(0.031)	(0.008)
Operating Exp.	-0.0002	-0.022***	-0.026***	-0.0004
	(0.006)	(0.005)	(0.003)	(0.001)
Labour	-0.017***	-8.82e-05	-0.008***	0.001**
	(0.005)	(0.004)	(0.001)	(0.001)
Total Cap.	0.002	0.038***	-0.029***	-0.001*
	(0.005)	(0.004)	(0.003)	(0.001)
GFCF	-0.037***	-0.048***	-0.052***	-0.002
	(0.012)	(0.011)	(0.006)	(0.002)
Constant	1.262***	1.812***	2.666***	0.0835**
	(0.298)	(0.291)	(0.170)	(0.040)
Year Effects	Yes	Yes	Yes	Yes
Firm Effects	Yes	Yes	Yes	Yes
Observations	614	2,496	2,692	2,689
R-squared	0.941	0.778	0.832	0.707
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

$\frac{\delta L}{\delta \mu} = C_2 - w_1' r_1 - w_2' r_2 = 0$

$\implies s_1 = \frac{w_2}{w_1} s_2 \qquad and \qquad r_1 = \frac{w_2'}{w_1'} r_2$

Thus,

$$s_1^* = \frac{C_1}{2w_2}, \quad s_2^* = \frac{C_1}{2w_1}, \quad r_1^* = \frac{C_1}{2w_1'}, \quad r_2^* = \frac{C_2}{2w_2'}$$

Using these values to calculate the CA_2, we get

$$CA_2^* = \alpha \frac{C_1}{2w_1} \frac{C_1}{2w_2} + (1-\alpha) \frac{C_2}{2w_1'} \frac{C_2}{2w_2'}$$

$$CA_2^* = \alpha \frac{C_1^2}{4w_1 w_2} + (1-\alpha)\frac{C_2^2}{4w_1' w_2'}$$

Further, the net CA_2^* will be

$$CA_2 = \alpha \frac{C_1^2}{4w_1 w_2} + (1-\alpha)\frac{C_2^2}{4w_1' w_2'} - C_1 - C_2$$

7.2 Multi-party alliance

$$\begin{aligned} \underset{s_i, s_j}{\text{maximize}} \quad & CA_2^{'} \\ \text{subject to} \quad & w_1 s_1 + w_2 s_2 \leq C_1, \\ & w_1' r_1 + w_2' r_2 \leq C_2, \\ & w_1'' k_1 + w_2'' k_2 \leq C_3, \\ & w_1 \geq 0, w_2 \geq 0, w_1' \geq 0, w_2' \geq 0 \end{aligned}$$

Proof: $L = \beta s_1 s_2 + (1-\beta) r_1 r_2 + \delta(s_1 s_2 + (1-\delta) k_1 k_2 + \lambda_1(C_1 - w_1 s_1 - w_2 s_2) + \lambda_2(C_2 - w_1' r_1 - w_2' r_2) + \lambda_3(C_3 - w_1'' k_1 - w_2'' k_2)$

$\frac{\delta L}{\delta s_1} = \beta s_2 + \delta s_2 + (-\lambda_1 w_1) = 0$
$\frac{\delta L}{\delta s_2} = \beta s_1 + \delta s_1 + (-\lambda_1 w_2) = 0$
$\frac{\delta L}{\delta s_3} = (1-\beta) r_2 + (-\lambda_2 w_1') = 0$
$\frac{\delta L}{\delta s_4} = (1-\beta) r_1 + (-\lambda_2 w_2') = 0$
$\frac{\delta L}{\delta \lambda_1} = C_1 - w_1 s_1 - w_2 s_2 = 0$
$\frac{\delta L}{\delta \lambda_1} = C_2 - w_1' r_1 - w_2' r_2 = 0$
$\frac{\delta L}{\delta \lambda_1} = C_3 - w_1'' k_1 - w_2'' k_2 = 0$

Similarly, in this case

$$s_1^* = \frac{C_1}{2w_1}, \quad s_2^* = \frac{C_1}{2w_2}, \quad r_1^* = \frac{C_2}{2w_1'}, \quad r_2^* = \frac{C}{2w_2'}, \quad k_1^* = \frac{C_3}{2w_1''}, \quad k_2^* = \frac{C_3}{2w_2''}$$

$$CA_2'^* = \beta \frac{C_1^2}{4w_1 w_2} + (1-\beta)\frac{C_2^2}{4w_1' w_2'} + \delta \frac{C_1^2}{4w_1 w_2} + (1-\delta)\frac{C_3^2}{4w_1'' 4w_2''}$$

Further net CA_2^* will be

$$CA_2^* = \beta\frac{C_1^2}{4w_1w_2} + (1-\beta)\frac{C_2^2}{4w_1'w_2'} + \delta\frac{C_1^2}{4w_1w_2} + (1-\delta)\frac{C_3^2}{4w_1''4w_2''} - C_1 - C_2 - C_3$$

For $CA_2^* - CA_2^{'*} \geq 0$

$$\implies \frac{\beta C_1^2}{4w_1w_2} + \frac{(1-\beta)C_2^2}{4w_1'w_2'} + \frac{\delta C_1^2}{4w_1w_2} + \frac{(1-\delta)C_3^2}{4w_1''w_2''} - \frac{\alpha C_1^2}{4w_1w_2} - \frac{1-\alpha C_2^2}{4w_1'w_2'} \geq 0$$

$$\frac{\beta + \delta C_1^2}{4w_1w_2} + \frac{(1-\beta)C_2^2}{4w_1'w_2'} - \frac{(1-\alpha)C_2^2}{4w_1'w_2'} + \frac{(1-\delta)C_3^2}{4w_1''w_2''} - \frac{\alpha C_1^2}{4w_1w_2} \geq 0$$

$$\frac{(\beta + \delta - \alpha)C_1^2}{4w_1w_2} + \frac{(1-\beta) - (1-\alpha)C_2^2}{4w_1'w_2'} + \frac{(1-\delta)C_3^2}{4w_1''w_2''} \geq 0$$

Next,

$$\frac{(\beta + \delta - \alpha)C_1^2}{4w_1w_2} \geq 0$$

$$\implies \delta \geq \alpha - \beta$$

Next,

$$\frac{(1-\beta) - (1-\alpha)}{4w_1'w_2'} \geq 0$$

$$\implies (1-\beta) \geq (1-\alpha)$$

Next,

$$\frac{(1-\delta)C_3^2}{4w_1''w_2''} \geq 0$$

$$\implies (1-\delta) \geq 0$$

Thus,

$$(\alpha - \beta) \leq \delta \leq 1$$