



RESEARCH NOTE

# The role of networks in international acquisition premiums

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**Abstract**

Our work builds on network theory to investigate the role of alliance networks in international acquisition premiums. On the one hand, we postulate that an international acquirer's network centrality in the target country lowers the inclination of offering higher bid premiums associated with its liability of foreignness (i.e., negatively moderates the relation between foreignness and premiums). On the other hand, we provide a perspective that a target firm's local network centrality increases an international acquirer's willingness to pay higher premiums in order to gain access to unique and valuable local knowledge and resources (i.e., positively moderates the relationship between foreignness and premiums). To test our hypotheses, we analyzed a sample of 1693 related acquisition bids made in more than 40 countries between 2008 and 2017. Our findings support our dual perspective on the role of networks and demonstrate that the acquirer's networks and the target's networks have distinct influences on the relationship between foreignness and bid premiums. This study makes contributions to the understanding of the complex dynamics at play in international M&As and emphasizes the importance of distinguishing between the acquirer's and the target's networks in shaping acquisition premiums.

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## INTRODUCTION

This study aims to investigate the impact of alliance networks on the relationship between foreignness and acquisition premiums, which refer to the difference between the price offered to acquire a target firm and the pre-acquisition market value of the target. While the influence of networks on internationalization decisions has received growing attention in the past (e.g., Iurkov & Benito, 2020; Shi, Sun, Pinkham, & Peng, 2014; Zhao, Parente, Fainshmidt, & Carnovale, 2021), little is known about networks' influence on international acquisition premiums. This is surprising, since extant studies have generated rich insights into the determinants of bid premiums for domestic (Kim, Haleblan, & Finkelstein, 2011; Reuer, Tong, & Wu, 2012) and cross-border acquisitions (Bertrand,

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Betschinger, & Settles, 2016; Fieberg, Lopatta, Tammen, & Tideman, 2021), and have established that premiums are not only associated with the expected value from a target, but are also a negotiated outcome. Given that networks provide firms with valuable knowledge and resources, which impact the value of organizations (Granovetter, 1985; Luo, 2001) and their ability to negotiate and conduct business abroad (Cuypers, Ertug, Cantwell, Zaheer, & Kilduff, 2020), they should also play a crucial role in acquisition premium decisions.

We draw on network theory to argue that network centrality plays a dual role in shaping the impact of foreignness on acquisition premiums, depending on whose network is considered. Firstly, the acquirer's network centrality in the target country helps to decrease its liability of foreignness during negotiations for the target firm. This is because well-connected foreign acquirers have access to more precise information about the target firm and better understand the appropriate business practices in the host country, which enables them to negotiate lower prices. Thus, the acquirer's network centrality negatively moderates the relationship between foreignness and premiums. Secondly, the target's network centrality increases its value for the acquirer by providing access to the target firm's relationships in the host country, which function as conduits for valuable local knowledge and resources. Therefore, foreign acquirers are willing to offer even greater premiums for targets with high network centrality, indicating that the target's network centrality positively moderates the relationship between foreignness and bid premiums. We find support for our predictions by analyzing data on cross-border acquisitions spanning a 10-year period.

Our work contributes to international business (IB) research on alliance networks and acquisition premiums. We build upon previous literature that has examined the impact of a firm's network position on various internationalization outcomes (Shi et al., 2014; Zhao et al., 2021) by demonstrating that acquirer's networks and target's networks have different effects on the relationship between foreignness and acquisition premiums. Specifically, we reveal that the acquirer's and target's network centralities exert opposing influences on the effect of foreignness on bid premiums, with different underlying mechanisms. While networks can help mitigate the acquirer's liability of foreignness in the host country by providing knowledge and negotiation skills, they can also enhance the expected

value of a target by combining diverse knowledge and resources. These insights shed light on the nuanced interplay between network centrality and foreignness in determining acquisition premiums. Furthermore, our study advances acquisition premium scholarship, which has traditionally focused on firm-level predictors that are specified for a focal firm itself, by introducing a network-based perspective that accommodates a focal firm's link to other firms. By examining how the embeddedness of the acquirer and target in the host market influences acquisition premiums, we move the conversation beyond firm-level characteristics and emphasize the importance of considering network dynamics in M&A transactions. Overall, our research adds to the growing body of literature on alliance networks and acquisition premiums, providing valuable insights for scholars and practitioners alike in the field of IB.

## THEORY AND HYPOTHESES

### Foreignness and Acquisition Premium

Acquisition premium refers to the price a firm (i.e., the acquirer/bidder) offers to acquire another firm (i.e., the target) in excess of the target firm's prevailing market value (Hayward & Hambrick, 1997). While acquirers offer a price premium in their attempt to acquire a target because they expect to benefit from synergies that exceed the sum of the current market value of the target firm and the premium offered, previous evidence has also established that the premium decision is more complex and is, ultimately, a negotiated outcome (Beckman & Haunschild, 2002). In other words, even though acquisition premiums are derived from the unique gains or opportunities of M&As, the price premium a bidder offers is also determined by the complexity and uncertainty of the negotiation process (Beckman & Haunschild, 2002; Devers, McNamara, Haleblian, & Yoder, 2013). Prior studies have employed various theoretical angles to shed light on the determinants of acquisition premiums, such as supply versus demand for the target (Giliberto & Varaiya, 1989), information asymmetry (Laamanen, 2007), bargaining power (Weitzel & Berns, 2006), anchoring heuristics (Malhotra, Zhu, & Reus, 2015), behavioral learning (Luo, 2005), financial advisors (Golubov, Petmezas, & Travlos, 2012), signaling by the seller (Reuer et al., 2012), and executive and board traits (Zhu, 2013), among others.



Acquisition premiums tend to be higher for international acquisitions than for domestic acquisitions due to two primary reasons. Firstly, cross-border acquisitions offer potential gains that are typically greater than those of domestic acquisitions, as the acquirer can leverage the target's knowledge of the local market and firm-specific resources to capitalize on market imperfections in the target country. This enables international M&As to provide benefits over domestic M&As, including internalization, synergy, and risk diversification. For example, research has shown that cross-border acquisitions enable firms to combine diverse resources and knowledge developed and embedded in different cultures, leading to the development of innovative and novel solutions and superior performance outcomes (Markides & Ittner, 1994). Secondly, foreign firms face greater complexity and uncertainty than domestic firms due to the liability of foreignness, which refers to the additional tacit and social costs that MNEs encounter when doing business abroad. Consequently, the acquirer is subject to information asymmetry, faces greater difficulty negotiating with the target's management and shareholders, and suffers from a lack of legitimacy with local stakeholders, all of which can impede their ability to negotiate lower bid premiums (Zaheer, 1995). Since networks help firms access valuable knowledge and resources, they can affect both the value of the target firm for the acquirer and the acquirer's ability to negotiate lower premiums, thereby influencing the relationship between foreignness and acquisition premiums.

### Alliance Networks and Network Centrality

Interorganizational networks are long-term relationships between organizations that are connected through sustained social relationships and common goals (e.g., Borgatti & Halgin, 2011; Granovetter, 1985). A common way for a focal firm to form international alliance networks occurs through international strategic alliances established between the focal firm and local alliance partners in the host country. These local alliance networks allow foreign firms to access local knowledge, i.e., knowledge held by the individuals and firms of the host country (Shi et al., 2014). One specific example is the Japanese car company Toyota, which was able to obtain knowledge on how to interact with different stakeholders in the United States, such as government bodies, suppliers, and trade unions, through their strategic alliance with American automaker General Motors and its local network partners (Dussauge, Garrette, & Mitchell, 2004).

An important characteristic of networks is *network centrality*, which refers to the extent of involvement a focal firm has in a network (Bell, 2005; Garg, Lin, & Yang, 2023). More specifically, network centrality captures how well connected a firm is to the parts of the network with the highest connectivity (Bonacich, 1987; Zhao et al., 2021). Firms that occupy a central position in the target country's network enjoy greater access to local information, knowledge, and resources (Sorenson & Stuart, 2008). Central firms can obtain knowledge through distant search via their direct and indirect local network connections (Koka & Prescott, 2008), which is vital for information diffusion and innovation (e.g., Fudge Kamal, Honoré, & Nistor, 2021; Granovetter, 1973). Accessing indirect partners through prominent direct partners also helps firms become less dependent on other actors for critical resources, such as the state (Markóczy, Sun, Peng, Shi, & Ren, 2013).

### Acquirer's network centrality

If being foreign is related to higher premiums, because foreign acquirers lack local knowledge, the ability to negotiate with target country firms, and legitimacy with local stakeholders, then having a more central local network can help attenuate the effect of foreignness for several reasons. First, central foreign acquirers may gain broad access to local knowledge and obtain critical information on how to evaluate target firms in the host country. In particular, foreign acquirers are able to better assess the target's performance, its capabilities, and how successfully they can integrate the target firm following the acquisition. Thus, being foreign does not increase, as strongly, the acquirer's need to solely rely on the target firm itself to provide information, which the target likely reveals selectively to drive up premiums. By contrast, if the foreign acquirer is unfamiliar with the host country, the target firm may try to hide its weaknesses, claim sub-optimal routines are rooted in cultural constraints, or exaggerate its own strengths.

Second, foreign acquirers can learn how to negotiate with the target firm through their interactions with local alliance partners (Cuyppers et al., 2020). Central acquirers not only have many relationships with local firms, but they also have many relationships with the most well-connected local firms, i.e., firms that themselves possess many relationships with other central firms. As a result, these acquirers learn how to interact and negotiate with firms that themselves are skillful negotiators



due to their frequent interactions with well-connected alliance partners. Hence, being foreign does not affect central focal acquirers' ability to negotiate for lower premiums to such a great extent, and they still are able to convince the target management and shareholders to sell the target.

Third, foreign acquirers' local network relationships increase their legitimacy in the target country, which helps reduce the likelihood of government intervention and target management's resistance (Li, Brodbeck, et al., 2017; Li, Xia, et al., 2017; Shenkar, Luo, & Yehekel, 2008). Foreign acquisitions tend to be under greater scrutiny from local governments because the latter worry about the intention and seriousness of foreign acquirers and the loss of economic control over domestic firms to foreign entities (Dinc & Erel, 2013). Thus, previous research suggests that government intervention for foreign M&As is more likely than for domestic M&As (Bertrand et al., 2016). Consequently, foreign acquirers need to offer higher premiums compared to domestic acquirers to prevent government intervention and obtain target management support. However, foreign acquirers differ from one another, since central acquirers have established trust and legitimacy with local constituencies, such as host country governments (Markóczy et al., 2013). As such, the effect of being foreign on foreign acquirers and their need to offer such a high premium with the intention to prevent government intervention and obtain target management support vis-à-vis domestic acquirers is smaller for foreign acquirers that have central network positions in the target country than those that do not. In sum, foreign firms with more central alliance networks can obtain critical information through their networks, which enables them to better navigate distant markets and effectively deal with foreign firms and stakeholders. Hence, the acquirer's network centrality weakens the effect of foreignness and negatively moderates the relationship between foreignness and premiums (Johanson & Vahlne, 2009). We propose:

**Hypothesis 1:** The acquiring firm's network centrality in the target country will negatively moderate the relationship between foreign acquisition and bid premium.

#### *Target's network centrality*

We expect the target's local network centrality to strengthen the effect of foreignness on acquisition premiums, since the target's local network increases

its value for foreign acquirers and, in turn, their willingness to offer even greater premiums. Foreign acquirers can benefit from acquiring central targets more so than domestic acquirers can, because a foreign acquirer values the local knowledge, expertise, and relationships of the domestic target more than domestic acquirers that themselves already have been able to gain such local knowledge and build important relationships in the country. This notion is consistent with received IB wisdom that suggests foreign firms regularly partner with local firms to benefit from the knowledge and relationships of the latter and better navigate difficult host country environments (Buckley & Casson, 1976). That is, by acquiring central targets, foreign acquirers can gain access to local information and resources that are embedded in the target's network (Fudge Kamal et al., 2021). As such, the foreign acquirer is willing to offer a greater premium in order to gain access to the target's network compared to domestic acquirers, strengthening the positive effect of foreignness on acquisition premiums.

In addition, since access to information and resources is associated with innovation (Bell, 2005), foreign acquirers of central targets are able to become more innovative and find new business opportunities by combining their own home-country information and resources with those of the well-connected target firms (Granovetter, 1973). Thus, a target firm's network centrality strengthens foreignness' positive influence on premiums because foreign acquirers expect to benefit disproportionately from the information and resources they can access through the target's local network. Further, being more central renders firms less dependent on other actors (Markóczy et al., 2013). That is, firms do not need to rely on one specific organization to access resources because they can gain access through alternative channels (Markóczy et al., 2013). Since foreign firms tend to be more dependent on local organizations in a host country, foreign acquirers that buy a central target become more independent and can capture greater rents in the host country. The more central a target firm's network position, the more valuable it is to foreign acquirers because the target is better connected to other local firms that themselves are well connected (Gözübüyük, Kock, & Ünal, 2020; Zhao et al., 2021). As a result, foreign acquirers are willing to offer greater premiums for these target firms compared to local acquirers that are already embedded in their home country (Cannizzaro,



2020). Hence, we argue that the target's network centrality positively moderates the relationship between foreignness and acquisition premiums:

**Hypothesis 2:** The target firm's network centrality in the target country will positively moderate the relationship between foreign acquisition and bid premium.

## METHODS

### Data

We collected a sample of related domestic and cross-border acquisition bids from Refinitiv's (formerly Thomson Reuters) SDC Platinum database. The sample consists of 1693 acquisition bids from 33 acquirer countries and 43 target countries between January 1, 2008 and December 31, 2017 with deal values greater than 1 million U.S. dollars (USD), no prior equity footholds of the acquirer in the target firm, and for which we are able to match the dependent, independent, and control variables (Bertrand et al., 2016; Malhotra et al., 2015).

### Dependent Variable

#### *Acquisition premium*

The dependent variable, *acquisition premium*, is calculated as the ratio of the initial offer price to the target closing stock price 4 weeks before the announcement date (Kim et al., 2011; Li & Halebian, 2022). Acquisition premium is the differential between the acquirer's bid and the target's preannouncement market value divided by the target's preannouncement market value. We winsorized the largest and smallest 2% of initial bids (Baker, Pan, & Wurgler, 2012).

### Independent and Moderating Variables

#### *Foreign acquisition*

We measure the variable, *foreign acquisition*, using a dummy variable that takes the value of 1 if the bidding firm and the target firm are from different home countries, and the value of 0 if the bidder and target are from the same home country (Zaheer, 1995).

#### *Acquirer's and target's network centrality*

To capture the *acquirer's network centrality* and the *target's network centrality*, we measure the acquiring and target firm's eigenvector centrality in the target

country's local alliance network in a given year, respectively (Zhao et al., 2021). To calculate eigenvector centrality, we first created matrices for each year, with rows and columns representing the unique firms in the network (Schilling & Phelps, 2007). A value in the matrix is one if the row's firm is engaged in an alliance with the column's firm, and zero otherwise (Zhao et al., 2021). We employ a 5-year rolling window to calculate the firm's network centrality, since alliance relationships change over time and their terminations are typically not publicized (Schilling & Phelps, 2007). We collect network data from SDC Platinum, and we use the software Gephi to calculate network centrality. A focal acquirer's or target's eigenvector centrality score increases with the number of its alliances with partner firms that themselves are well connected.

### Control Variables

We include several control variables. We first enter the acquirer country's *shareholder protection* and the acquirer's *accounting standards* (Bris & Cabolis, 2008; Witt, Fainshmidt, & Aguilera, 2022). We capture shareholder protection using the World Bank's annual investor protection data of the acquirer country. We measure accounting standards using La Porta, Lopez-de-Silanes, Shleifer, and Vishny's (1998) data for the acquirer's country, if the acquirer follows the accounting standard of its home country. We enter the score of 83, if the firm follows international accounting standards, and the score 71, if the firm follows US GAAP (Bris & Calobis, 2008). We further add the target country's *GDP per capita* collected from the World Bank's World Development Indicators. In addition, we include the *political constraint* of the target country (Weitzel & Berns, 2006), obtained from Henisz's (2000) political constraint index, and the *total acquisition activity* in the target country and industry within the past 5 years prior to the focal bid. We also enter the dummy variable *cultural proximity* between acquirer and target countries based on Ronen and Shenkar's (1985, 2013) clusters to account for cultural differences between the two countries (Zeng, Shenkar, Lee, & Song, 2013). We also include the *geographic distance* between the acquirer and target countries (White III, Fainshmidt, & Rajwani, 2018).

We include a dummy that indicates whether the acquirer is a *financial acquirer* and another dummy that indicates whether the acquirer is a *public company* (Hope, Thomas, & Vyas, 2011). We



further enter the *acquirer's prior acquisitions* as the number of bids the acquirer has made during the 5 years prior to the focal bid in the target country and in the same industry. We also add a count variable that counts the number of the *acquirer's financial advisors* and a dummy variable that captures whether the financial advisor is a top-15 advisor (*acquirer's reputable advisor*) based on data from SDC and Dealbook, respectively (Laamanen, 2007; Malhotra et al., 2015). In addition, we include a count variable that captures the *acquirer advisor's acquisitions* in the target country and industry within the past 5 years prior to the focal bid (Bertrand et al., 2016; Zhu, 2013) using data from SDC Platinum. We further include the *acquirer's revenue* (logged) and return on assets (ROA). Similarly, we enter *target's financial advisors*, *target's reputable advisor*, *target advisor's prior acquisitions*, *target's revenue* (logged), and *target's ROA* (Hope et al., 2011; Kim et al., 2011), through data collected from Datastream.

We also add the *deal value* and further enter the *equity stake sought*, which is a continuous variable that measures the percentage of ownership that the bidder offers (Chari & Chang, 2009). We also include a dummy variable that captures whether the payment was offered exclusively in *cash* (Datta, Iskandar-Datta, & Raman, 2001). We enter dummy variables that indicate whether the bid was a *tender* offer and whether the offer was *hostile* (Zhu, 2013). Further, we include dummies that indicate whether the deal is a *merger of equals* and *take-private*, respectively (Laamanen, 2007). All data above were collected from SDC Platinum. Furthermore, we add dummy variables that indicate if the deal was *completed* and the number of *competing bids* (Malhotra et al., 2015). Lastly, we include year, industry, and target country dummies to control for time-, industry-, and country-specific effects.

### Empirical Model

We employ ordinary least squares (OLS) regression to assess the impact of the explanatory variables on acquisition premium (Bertrand et al., 2016). OLS regression is suitable for our sample, since the assumptions of OLS hold for our sample. Moreover, we include year, industry, and target country dummies, and we use robust standard errors clustered at the acquirer country level (Hope et al., 2011; Li, Brodbeck, et al., 2017; Li, Xia, et al., 2017). We use Heckman two-stage estimation to address selection bias and endogeneity (e.g., Certo, Busenbark, Woo, & Semadeni, 2016; Heckman, 1979;

Shaver, 1998), since whether a cross-border or domestic acquisition manifests is likely not random. In the first stage, we employ the probit model, and we add *target country's shareholder protection* and *target country's trade openness* as exclusion restrictions (Kim, Wu, Schuler, & Hoskisson, 2020; Martin, 2013).<sup>1</sup>

## RESULTS

We report the descriptive statistics by country and industry in Online Appendix 1. Online Appendix 2 reports the summary statistics and correlation matrix. Variance inflation factors are smaller than 2.9 for all variables and indicate that multicollinearity levels are low. Online Appendix 3 shows the results of the first-stage selection model. We do not include cultural proximity, since it explains foreign acquisition perfectly. The coefficient for target country's shareholder protection is negative and significant ( $\beta = -0.486$ ,  $p = 0.002$ ), suggesting that target firms from countries with worse shareholder protection tend to be acquired by foreign firms, as expected. The coefficient for target country's trade openness is positive and significant ( $\beta = 0.799$ ,  $p = 0.032$ ), which indicates that a target country's openness to the world economy positively affects whether foreign acquisitions are welcome in the country. Table 1 reports the regression results for the dependent variable acquisition premium. Model 1 includes the control variables. Hypothesis 1 proposes that the acquirer's network centrality negatively moderates the relationship between foreignness and acquisition premium. We include the interaction term in Model 2. Hypothesis 2 suggests that the target's network centrality positively moderates the relation between foreignness and premium. We add the interaction term in Model 3. Model 4 reports the full model with the main independent variable and moderators. We also ran the analyses without US acquirers, and we find consistent results (see the results in Online Appendix 4).

The interaction term for foreignness and acquirer's network centrality is negative and significant ( $\beta = -8.418$ ,  $p = 0.005$ ). The interaction term between foreignness and target's network centrality is positive and significant ( $\beta = 9.914$ ,  $p = 0.018$ ). Figures 1 and 2 show the marginal effects plots (Meyer, van Witteloostuijn, & Beugelsdijk, 2017). The two outer lines give the 95% confidence range for the interaction line, which shows the marginal effect of foreignness on acquisition premium. Thus, hypotheses 1 and 2 receive support. The interaction

**Table 1** Results of the second-stage outcome model

Variable	Model 1		Model 2		Model 3		Model 4	
	Est.	P	Est.	P	Est.	P	Est.	P
Foreign acquisition	4.532 (2.883)	0.126	3.699 (2.908)	0.213	4.446 (3.052)	0.155	3.426 (3.139)	0.283
Foreign acquisition × acquirer's network centrality (H1)			- 6.907 (2.986)	0.027			- 8.418 (2.781)	0.005
Foreign acquisition × target's network centrality (H2)					9.345 (4.387)	0.041	9.914 (3.962)	0.018
Acquirer's network centrality	4.051 (1.188)	0.002	4.644 (1.267)	0.001	3.831 (1.234)	0.004	4.540 (1.302)	0.001
Target's network centrality	- 1.100 (0.648)	0.099	- 1.092 (0.656)	0.106	- 1.610 (0.336)	0.000	- 1.631 (0.342)	0.000
Shareholder protection	- 2.627 (1.416)	0.073	- 2.630 (1.387)	0.067	- 2.526 (1.467)	0.095	- 2.524 (1.430)	0.087
Accounting standards	- 0.302 (2.449)	0.903	- 0.138 (2.398)	0.955	- 0.399 (2.555)	0.877	- 0.205 (2.499)	0.935
GDP per capita	0.102 (4.830)	0.983	- 0.139 (4.800)	0.977	0.350 (5.017)	0.945	0.072 (4.971)	0.989
Political constraint	- 7.229 (1.963)	0.001	- 7.382 (1.951)	0.001	- 7.121 (1.922)	0.001	- 7.301 (1.917)	0.001
Total acquisition activity	- 0.375 (3.328)	0.911	- 0.290 (3.322)	0.931	- 0.629 (3.430)	0.856	- 0.540 (3.411)	0.875
Cultural proximity	- 6.289 (4.031)	0.129	- 6.675 (4.053)	0.109	- 5.902 (3.978)	0.148	- 6.347 (3.981)	0.121
Geographic distance	- 0.756 (1.434)	0.602	- 1.095 (1.464)	0.460	- 0.476 (1.444)	0.744	- 0.873 (1.461)	0.555
Financial acquirer	2.462 (8.548)	0.775	2.866 (8.545)	0.739	2.373 (8.486)	0.782	2.859 (8.511)	0.739
Public	- 5.576 (4.801)	0.254	- 5.579 (4.803)	0.254	- 5.484 (4.817)	0.263	- 5.482 (4.817)	0.264
Acquirer's prior acquisitions	- 0.650 (1.210)	0.595	- 0.424 (1.242)	0.735	- 0.783 (1.173)	0.509	- 0.516 (1.201)	0.670
Acquirer's financial advisors	- 0.466 (1.216)	0.704	- 0.468 (1.212)	0.702	- 0.550 (1.168)	0.641	- 0.556 (1.160)	0.635
Acquirer's reputable advisor	- 2.188 (2.018)	0.287	- 2.434 (2.012)	0.235	- 1.646 (1.922)	0.398	- 1.912 (1.901)	0.322
Acquirer advisor's acquisitions	2.920 (1.981)	0.150	3.361 (2.072)	0.115	2.631 (1.924)	0.181	3.151 (2.008)	0.126
Acquirer's revenue (log)	1.295 (1.123)	0.257	1.205 (1.128)	0.294	1.392 (1.146)	0.233	1.288 (1.160)	0.275
Acquirer's ROA	- 0.869 (0.564)	0.133	- 0.849 (0.563)	0.142	- 0.922 (0.547)	0.102	- 0.901 (0.545)	0.108
Target's financial advisors	- 1.293 (1.250)	0.309	- 1.183 (1.268)	0.358	- 1.209 (1.258)	0.344	- 1.070 (1.283)	0.410
Target's reputable advisor	- 0.963 (2.498)	0.702	- 1.116 (2.514)	0.660	- 1.317 (2.397)	0.587	- 1.525 (2.413)	0.532
Target advisor's acquisitions	- 1.331 (1.977)	0.506	- 1.374 (2.034)	0.504	- 1.329 (2.011)	0.513	- 1.382 (2.083)	0.512
Target's revenue (log)	- 2.193 (1.482)	0.149	- 2.194 (1.492)	0.151	- 2.225 (1.482)	0.143	- 2.227 (1.495)	0.146
Target's ROA	- 2.103 (1.292)	0.113	- 2.178 (1.325)	0.110	- 2.048 (1.262)	0.115	- 2.135 (1.294)	0.109
Deal value	0.668 (1.020)	0.517	0.710 (1.011)	0.488	0.533 (1.131)	0.641	0.576 (1.12)	0.611



Table 1 (Continued)

Variable	Model 1		Model 2		Model 3		Model 4	
	Est.	P	Est.	P	Est.	P	Est.	P
Equity stake sought	6.283 (1.948)	0.003	6.311 (1.932)	0.003	6.172 (1.976)	0.004	6.200 (1.956)	0.003
Cash	1.864 (1.956)	0.348	1.655 (2.017)	0.418	1.862 (2.047)	0.370	1.607 (2.11)	0.452
Tender	12.741 (2.457)	0.000	12.708 (2.480)	0.000	12.968 (2.556)	0.000	12.941 (2.578)	0.000
Hostile	8.735 (9.476)	0.364	8.359 (9.595)	0.390	9.086 (9.567)	0.349	8.648 (9.668)	0.378
Merger of equals	- 21.223 (3.071)	0.000	- 21.003 (3.077)	0.000	- 21.241 (3.113)	0.000	- 20.973 (3.125)	0.000
Take-private	2.234 (6.555)	0.735	2.041 (6.572)	0.758	2.419 (6.564)	0.715	2.195 (6.584)	0.741
Completed	4.635 (4.262)	0.285	4.747 (4.260)	0.273	4.511 (4.259)	0.297	4.640 (4.267)	0.285
Competing bids	2.879 (0.630)	0.000	2.850 (0.641)	0.000	2.940 (0.625)	0.000	2.908 (0.635)	0.000
Lambda	- 6.578 (3.024)	0.037	- 7.633 (3.226)	0.024	- 6.047 (3.011)	0.053	- 7.300 (3.196)	0.029
Intercept	13.561 (21.150)	0.526	16.269 (21.429)	0.453	12.504 (21.467)	0.564	15.740 (21.643)	0.472
Observations	1,693		1,693		1,693		1,693	
R-squared	23.48 %		23.55 %		23.75 %		23.85 %	

Estimation with year, industry, and country dummies. Robust standard errors are in parentheses.

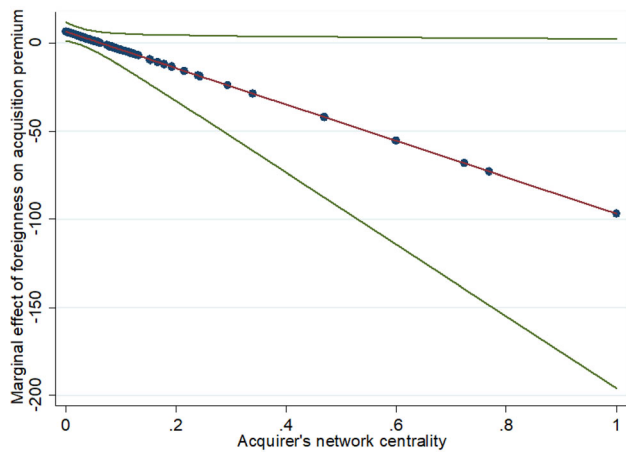


Figure 1 Marginal effects plot for acquirer's network centrality.

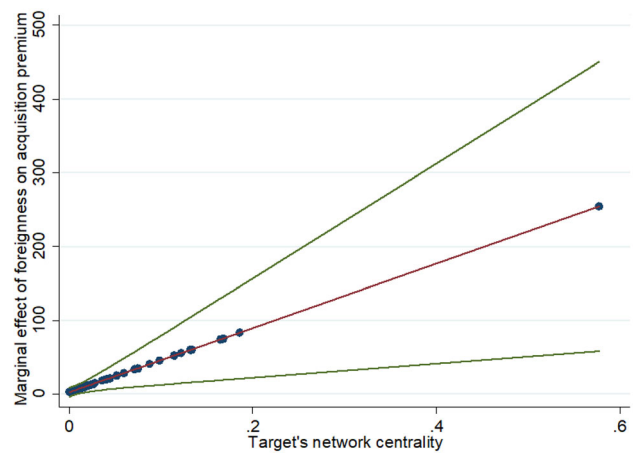


Figure 2 Marginal effects plot for target's network centrality.

line in Figure 1 shows that the positive marginal effect of foreignness is significant for acquirers with zero or very low network centrality in the target country, suggesting that the marginal effect of foreignness on premiums for acquirers with network centrality scores of zero is on average pay up to ten percentage points. The positive marginal

effect becomes insignificant at very low levels of network centrality with growing centrality and decreases but remains insignificant for growing network centrality, illustrating the potent role of acquirers' local networks in helping them reduce their liability of foreignness and lower premiums. The interaction line in Figure 2 illustrates that the





positive marginal effect of foreignness is insignificant for targets with almost zero local network centrality, becomes positive and significant for a small increase in network centrality, and grows with increasing target network centrality, suggesting that targets' local networks steadily increase their value as illustrated in the acquisition premiums. Indeed, the marginal effect of foreignness on premiums is about 15 percentage points for targets with network centralities of 0.07. The significant inverse Mills ratio ( $\lambda$ ) suggests that there is a selection bias.<sup>2</sup>

## DISCUSSION AND CONCLUSION

Our study investigates the moderating effect of alliance networks on the relationship between foreignness and acquisition premiums and provides theoretical contributions to research on both alliance networks and acquisition premiums in the IB field. While prior research has made significant contributions by examining the role of networks in IB (e.g., Iurkov & Benito, 2020; Shi et al., 2014; Zhao et al., 2021), we advance this research by offering a dual perspective on networks in the context of international acquisition premiums. Specifically, we show that while acquirer networks can help mitigate challenges that stem from the liability of foreignness for foreign acquirers by providing them with knowledge, negotiation skills, and legitimacy in the host country, target networks can enhance the expected value from a foreign target by giving the acquirer access to the unique and diverse knowledge and resources that the target has acquired through its local network, thus increasing the willingness of acquirers to pay higher premiums. As a result, we find that acquirer networks and target networks have different effects on the relationship between foreignness and acquisition premiums, and the role of networks in premium decisions depends critically on whose network is being considered.

Our research also contributes to the acquisition premium literature in two main ways. First, we add to the growing body of research on international acquisition premiums by identifying a nuanced factor, i.e., acquirer and target alliance networks, which influences the relationship between foreignness and premiums. While previous studies have focused on domestic M&As, more recent research has begun to examine premiums in international acquisitions and has generated valuable insights by exploring the influence of country-level

institutions such as cultural distance, international relations and politics, and national pride on international premium decisions. Our work adds to this emerging literature by revealing the critical role of alliance networks in premium decisions.

Second, our research offers a unique contribution to both domestic and international acquisition premium research by incorporating a network perspective. Prior studies have focused on firm-level determinants of premiums in domestic acquisitions (e.g., Beckman & Haunschild, 2002; Weitzel & Berns, 2006), and country-level predictors in cross-border M&As (e.g., Bertrand et al., 2016). Although these studies have generated valuable insights, the role of interfirm networks in the acquisition premiums literature has been overlooked. Our study integrates network theory (Yan, Li, & Zhang, 2022) and international acquisition premium research (Hope et al., 2011) by demonstrating that local interfirm networks, such as alliance networks in the host country, significantly influence the relationship between foreignness and acquisition premiums. As a result, our research uncovers a novel moderator that significantly influences the relation between foreignness and bid premiums and, in doing so, reveals the interesting mechanisms of networks that affect the premium decisions of foreign vis-à-vis domestic acquirers.<sup>3</sup>

Practitioners can benefit from the insights of our research in several ways. Managers of the target firm can learn about the implications of local networks, so as to emphasize their own strong local networks and drive up premiums for foreign acquirers, since the latter disproportionately value these networks. Target firm managers may also build on our research insights to approach potential foreign buyers with weak local networks to receive higher premium offers, since these foreign buyers are particularly exposed to the liability of foreignness and, thus, are willing to pay more for target firms. By contrast, executives from acquiring firms can also benefit from an understanding of local alliance networks. Specifically, foreign acquirers may establish alliances with well-connected firms in a host country before making international acquisitions, since doing so helps foreign acquirers lower their liability of foreignness and save on acquisition premiums.

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## NOTES

<sup>1</sup>Target country's shareholder protection affects the likelihood that a foreign acquirer instead of a domestic acquirer makes the acquisition bid, since foreign firms tend to acquire targets from countries with weaker shareholder protection to list them, i.e., the combined firm, elsewhere. Thus, selling to foreign buyers resembles contractual convergence akin to listing in countries with better corporate governance and capital markets (Rossi & Volpin, 2004). At the same time, target country's shareholder protection should have no direct influence on acquisition premiums. Target country's trade openness should influence the likelihood that a foreign acquirer instead of a domestic acquirer makes the acquisition bid because a country's trade openness affects whether foreign acquisitions are welcome in a target country, but it does not directly influence acquisition premiums. We then use the estimates for the first-stage model to generate the inverse Mills ratio ( $\lambda$ ) that we include in the second-stage OLS estimation.

<sup>2</sup>Since we seek to shed light on the influence of networks on the relationship between foreignness and premiums, we do not examine the direct effect of network centrality. Nevertheless, we note that acquirer's network centrality has a positive direct effect on acquisition premiums, suggesting that well-connected acquirers might be more willing to pay higher premiums, as they are more confident in

generating value from acquisitions in places where they have strong networks. By contrast, target's network centrality has a negative direct effect, indicating that well-connected targets receive lower premiums. This negative effect of target's network centrality on premiums is rather counterintuitive, and we encourage scholars to explore this angle in greater detail in the future.

<sup>3</sup>This study has limitations that offer avenues for future research. First, we are unable to observe all network effects that may influence bid premiums, such as networks with the federal and local government, customers, suppliers, and local communities, among many others. Future research can collect data through surveys and interviews. Second, we are unable to assess which of the underlying mechanisms is the dominant factor that contributes to the higher premiums offered by foreign acquirers. Thus, we encourage scholars to collect data that can help reveal the underlying mechanisms. Further, we do not examine variations of asset valuations across different timespans. For example, asset valuations might be different before versus after the Global Financial Crisis in 2008, while the COVID pandemic may have inflated valuations of bio-tech firms with special technologies. Thus, we encourage future research to explore the influence of asset valuations across different years and events on premium decisions.

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