**HOW DOES A PARTNER’S ACQUISITION AFFECT THE VALUE OF THE ALLIANCE?**

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**INTRODUCTION**

Alliances and acquisitions serve as corporate vehicles for accessing resources that reside beyond a firm’s boundaries. However, firms often disregard their interdependencies and rely on separate units to manage them (Dyer, Kale, & Singh, 2004). Not surprisingly, the respective bodies of research on alliances and acquisitions have evolved independently, with only a few studies examining their interplay. One stream of research has considered how a firm’s partnering experience influences the formation and performance of its subsequent acquisitions (e.g., Agarwal et al., 2012; Beckman & Haunschild, 2002; Porrini, 2004; Wang & Zajac, 2007; Yang, 2005; Zaheer, Hernandez, & Banerjee, 2010; Zollo & Reuer, 2010), but has offered no insight into how an acquisition initiated by a partner affects the firm’s alliance with that partner. A few studies have examined how a firm’s alliance is disrupted by the partner’s acquisitions, leading to dissatisfaction, reduced commitment, and termination of the alliance (Cui, Calantone, & Griffith, 2011; Xia, 2011). Some qualitative research has examined conditions under which embedded relationships of the target may be terminated following its acquisition (Spedale, Van Den Bosch, & Volberda, 2007), but has not examined the implications for the acquirer’s alliances. This research has limited its concern to alliance termination, without studying implications for the alliance’s value. Moreover, it has underscored only the negative implications of acquisitions for alliances, without empirically testing the idea that a partner’s acquisition can in fact benefit the firm (Hernandez & Menon, 2018).

Our study examines how a partner’s acquisition affects the value created and captured by the firm given the nature of its associations with the partner and with the partner’s acquisition target. We conjecture that business similarity between the firm and the acquisition target undermines value creation and capture, whereas business complementarity with that target creates value. We then contend that the relational embeddedness between the firm and its partner mitigates the negative effect of business similarity with the target while reinforcing the positive effect of their complementarity. Using an event study methodology, our analysis offers support to the opposing effects of business similarity and complementarity, but counters the predictions relating to the moderating effects of relational embeddedness. We conclude that if a partner acquires a target that competes with the firm, this indicates the breakdown of trust in their embedded relationship and creates a risk of knowledge spillover, which undermines the firm’s value creation and capture from the alliance. In addition, relation-specific routines can become rigid, which may prevent the firm from leveraging the complementary resources of the partner’s acquisition target.

Our study extends the relational view (Dyer & Singh, 1998; Dyer, Singh, & Hesterly, 2018) by supplementing it with a value capture perspective and by incorporating interdependencies in triads. We juxtapose alliances and acquisitions, and acknowledge third-party effects of acquisitions. Hence, we contribute to research on alliances and acquisitions that has underscored either firm-partner or acquirer-target relations, by shedding light on the mechanisms that drive value creation and capture in these instances. We reveal possible gains to third parties from acquisitions and a dark side of relational embeddedness. Paradoxically, we find that relational embeddedness attenuates the benefits of business complementarity while exacerbating the caveats of business similarity with the target following the partner’s acquisition. These counterintuitive findings enhance our understanding of the nuanced interdependencies across various interfirm relations, and suggest that relation-specific routines can lead to rigidity that impedes knowledge exchange following the post-acquisition restructuring of the alliance relation. This caveat emerges from the partner’s corporate initiatives, which are difficult to observe and react to.

**THEORY AND HYPOTHESES**

Alliances enable a firm to access network resources that lie beyond its boundaries (Lavie, 2006), but the partner’s business and resources change over time, so their contribution cannot be fully foreseen (Cui et al., 2011; Lunnan & Haugland, 2008). In particular, when a firm’s partner acquires a target, the partner gains ownership of the target’s business. The resulting resource influx can benefit the firm by creating new resource combinations which become available via the alliance. Alternatively, the acquired target’s business may substitute for the firm’s business in the alliance relation, which can undermine the potential value that the firm can create and capture from its alliance. We contend that the extent to which the acquisition enhances versus restricts value creation and capture depends on the similarity and complementarity between the businesses of the firm and the target, as well as on the relational embeddedness between the firm and its partner.

When a firm’s partner acquires a target that operates in the firm’s industry, the firm and the target are likely to possess similar resources and compete in the same product markets, which intensifies the competitive tension between them (Chen, 1996; Wang & Zajac, 2007). Under such conditions, the acquisition may restrict the value that the firm can create and capture from its alliance with that partner. The greater the similarity between the businesses of the firm and the target, the more likely the target is to compete with the firm for the partner’s resources and attention. This may prompt the partner to reduce its commitment to the alliance, which may limit its value for the firm. Additionally, to the extent that the acquisition can substitute for some of the resources previously furnished by the firm, it renders the firm’s resources less valuable to the partner. This, in turn, reduces the partner’s dependence on the firm (Cui et al., 2011; Xia, 2011) and limits the firm’s ability to capture value from its alliance with that partner given the firm’s weakened bargaining position (Khanna, Gulati, & Nohria, 1998; Lavie, 2007). Moreover, greater similarity between the firm’s and the target’s businesses increases the likelihood of conflict, opportunistic behavior, unintended resource leakage, and misappropriation of value in the alliance (e.g., Gnyawali & Park, 2009; Khanna et al., 1998). These counterproductive behaviors constrain the parties’ ability to create value (Arslan, 2018) as well as the firm’s ability to capture value from their alliance (Lavie, 2006), as the partner is incentivized to compete away the firm’s share of value (Lavie, 2007). Finally, following the acquisition, the target becomes part of a larger entity and can leverage the resources and industry position of its acquirer in its competition with the firm.

*Hypothesis 1: The greater the business similarity between the firm and its partner’s acquisition target, the larger the decrease in the expected value of the alliance to the firm following the partner’s acquisition of the target.*

Business complementarity implies differences between firms’ resources as well as mutually beneficial interdependence of these firms (Tanriverdi & Venkatraman, 2005; Wang & Zajac, 2007). When a firm’s partner acquires a target that operates in a business that complements the firm’s own business, the firm may gain additional opportunities to create synergies in its alliance (Dyer & Singh, 1998). Assuming that the firm gains access to the acquired resources of the target via its alliance with the partner, the firm can leverage some of the target’s complementary resources and create more value in its alliance. By combining the target’s complementary resources, the firm’s own resources may also become more valuable to its stakeholders (Lavie, 2006). Additionally, the target’s complementary resources can compensate for the firm’s shortcomings in the alliance (Chung, Singh, & Lee, 2000; Harrison et al., 2001). Hence, the complementary businesses of the firm and its partner’s target can create opportunities for value creation in the alliance.

*Hypothesis 2: The greater the business complementarity between the firm and its partner’s acquisition target, the larger the increase in the expected value of the alliance to the firm following the partner’s acquisition of the target.*

Relational embeddedness refers to a relationship built on social attachment and interpersonal ties. It evolves with frequent and repeated interactions between partners (Granovetter, 1985; Uzzi, 1996). The more embedded the relationship of the firm and its alliance partner, the less tension prevails between them following the acquisition of the target, and the more likely the partner is to dedicate resources to the alliance (Sorenson & Waguespack, 2006). Such relation-specific investments are often not salvageable (Parkhe, 1993), which makes it costly to the partner to reduce its commitment to the alliance despite the firm’s competition with its acquisition target. Moreover, although the partner’s relative bargaining power is likely to increase when the acquisition target operates in a business similar to that of the firm (Xia, 2011), the partner is less likely to exercise this power to restrict the firm’s share of value when engaging in an embedded relationship with the firm. This is due to the perceived value of their collaboration and strong personal ties between the alliance managers (Dyer & Chu, 2003). Moreover, the firm’s concern about possible leakage of resources to a competitor via the alliance may be less severe when it maintains an embedded relationship in which it has built trust with the partner (Gulati, 1995). Mutual trust facilitates cooperation and conflict resolution in alliances (Madhok, 2006), so that the parties can overcome their competitive tension more easily. Both the firm and its partner can be confident that the other party will act evenhandedly despite the possibility of opportunism (Zaheer, McEvily, & Perrone, 1998) following the partner’s acquisition of the target. Finally, in an embedded relationship, the parties are more likely to avoid unauthorized use of each other’s resources (Krishnan, Martin, & Noorderhaven, 2006) despite the partner’s acquisition. Hence, the greater the relational embeddedness between the firm and its partner, the less severe the ramifications of the business similarity between the firm and the partner’s target.

*Hypothesis 3: The negative effect of the business similarity between the firm and its partner’s acquisition target will become weaker as the relational embeddedness between the firm and the partner increases.*

Business complementarity between the firm and its partner’s acquisition target can contribute to joint value creation in the alliance, but such value can be realized only if the firm and its partner have aligned their organizational processes and systems in a way that supports coordinated action (Lavie, Haunschild, & Khanna, 2012). This is indeed the case when the firm and its partner have nurtured an embedded relationship that helps them establish relation-specific routines that facilitate knowledge exchange and resource combination. Relational embeddedness is often accumulated in recurrent alliances between the firm and its partner (Zollo, Reuer, & Singh, 2002). Relational embeddedness enables the parties to leverage their relation-specific routines for exchanging knowledge (Holloway & Parmigiani, 2016; Zollo et al., 2002), and therefore facilitates the firm’s ability to access and leverage complementary resources of the partner’s acquisition target (Andersen, 2013; Gulati & Singh, 1998). By relying on their embeddedness, the firm and its partner can easily recognize who possesses complementary assets in the partner’s organization, and utilize efficient communication and standard procedures to access these resources (Gulati, Lavie, & Singh, 2009; McEvily & Marcus, 2005). The greater the relational embeddedness between the firm and its partner, the better their ability to share and exchange fine-grained information and tacit knowledge (Larson, 1992; Reagans & McEvily, 2003). As a result, relational embeddedness reinforces the benefits ascribed to the complementary businesses of the firm and its partner’s acquisition target.

*Hypothesis 4: The positive effect of the business complementarity between the firm and its partner’s acquisition target will become stronger as the relational embeddedness between the firm and the partner increases.*

**METHODS**

We tested our hypotheses with data on dyads of public firms and their U.S.-based public alliance partners that operated in the software industry. The sample included all the partners that acquired public targets during 2000–2016. We first used the SDC database to identify acquisitions and corresponding alliances, assuming a three-year alliance duration (Lavie, 2007). Our sample consists of 361 public firms that formed 590 alliances with 91 U.S.-based public software partners, which in turn acquired 164 public targets. We gathered financial data from Compustat and data on stock prices from CRSP. Our data consists of 1,008 dyad-events corresponding to an acquisition event and the alliance of the acquirer with a focal firm. We used event study analysis to examine the change in the firm’s value of the alliance following its partner’s acquisition. The dependent variable was measured by the firm’s cumulative abnormal return (CAR) around the acquisition announcement, reflecting the investors’ expectations about the value that the alliance would create for the firm following the acquisition. We measured CAR during a two-day event window [–1,0], with the acquisition announcement set to t = 0. We estimated the market model for a period of 250 days based on the equal-weighted S&P 500 (Findikoglu & Lavie, 2019; Gulati et al., 2009).

Business similarity was calculated based on the primary SIC codes of the firm and the target, coded “1” if the four-digit SICs of the firm and target matched, “0.75” if only the first three digits matched, “0.5” if only the first two digits matched, “0.25” if only the first digit matched, and “0” otherwise (Wang & Zajac, 2007). Business complementarity was calculated based on co-occurrence of pairs of four-digit SICs within all firms in Compustat, and then computing $\sum\_{ij}^{}Comp\_{ij}×p\_{i}×p\_{j}$, where Compij is the complementarity score of each pair of SIC codes of firm i and target j, while pi and pj are their weights (Wang & Zajac, 2007). Relational embeddedness was measured as the number of alliances formed between the firm and the partner prior to the acquisition (Gulati, 1995; Gulati et al., 2009), weighted by the intensity of the alliance relation as captured by the standardized number of different types of alliance agreements (Lavie, 2007).

We controlled for firm, partner, and acquisition target characteristics, including their R&D intensity, solvency, and diversification. We also controlled for the partner’s status based on Forbes’ Global 2000 ranking. Next, we controlled for alliance characteristics, including the alliance governance (equity vs. non-equity), value chain function (downstream and/or upstream), alliance age, and relative bargaining power vis-à-vis the partner, measured with relative profitability and alternatives (a ratio of the number of firms in the partner’s four-digit SIC to the number of firms in the firm’s four-digit SIC). Controls for acquisition characteristics included the extent of ownership of the target, relatedness of the acquisition (based on SIC digit match), cross-border acquisition status, acquisition’s payment method, and the size of the partner relative to its target. We also controlled for the relative size and relative status of the target relative to the firm, and for their relational embeddedness. Finally, we controlled for inter-industry variation by studying a single industry of the partners, and for inter-temporal trends by standardizing our dependent variable. We tested our hypotheses using ordinary least squares regression with robust standard errors.

**RESULTS**

Our results reveal that, in line with Hypothesis 1, the business similarity of the firm and the target negatively impacts the value of the firm’s alliance. Furthermore, in line with Hypothesis 2, business complementarity between the firm and the target positively affects the alliance’s value. However, contrary to Hypothesis 3, the moderating effect of firm-partner embeddedness on the association between the firm’s CAR and the firm-target similarity is negative. A possible explanation is that when the firm and the partner have an embedded relationship, the partner’s acquisition of a target that operates in the firm’s business is seen as a betrayal or relationship failure (Rogan, 2014), hence, the alliance is more negatively affected by the acquisition. Another explanation is that in its embedded relationship, the firm may have shared with the partner private information that, if leaked to a competitor, can severely affect the firm’s business (Rogan, 2014). Consequently, the partner’s acquisition of a target that operates in a similar business to that of the firm is more detrimental to the firm’s alliance despite, and perhaps because, of its embedded relationship with the partner. Similarly, counter to Hypothesis 4, we find that the firm-partner embeddedness negatively moderates the association between the firm-target complementarity and the value created by the alliance. A possible explanation is that the firm and the partner may have developed relation-specific routines in their repeated interactions (Gulati et al., 2009; Larson, 1992), which solidify over time and become rigid (Nelson & Winter, 1982). In order to leverage emerging opportunities arising from business complementarity with the acquisition target, the firm and the partner need to modify these routines, e.g., those relating to accessing and sharing knowledge (Dyer & Singh, 1998). This becomes more challenging given their rigidity (Zheng & Yang, 2015). An attempt to modify these routines can undermine the firm’s ability to access previously available partner assets and jeopardize existing complementarities with the partner. Therefore, counterintuitively, the firm and its partner’s embedded relationship constrains the adaptation of relation-specific routines, and hence impedes synergies linked to the business complementarity between the firm and its partner, and, in particular, with the acquired target.

**DISCUSSION**

Firms engage concurrently in alliances and acquisitions. Although prior research has offered insights into the effect of alliances on acquisitions, little is known about how acquisitions affect alliances, even though third-party acquisitions can be consequential to the firm.

Our study extends the relational view (Dyer & Singh, 1998) and reconciles opposing views on the implications of a partner’s acquisitions. Some studies have suggested that a partner’s acquisitions can endanger its alliance with the firm and facilitate its termination (Cui et al., 2011; Rogan, 2014; Xia, 2011), whereas others have directed attention to the potential gains (Hernandez & Menon, 2018). We show that a partner’s acquisition either undermines or enhances the value of the firm’s alliance, depending on the extent of similarity and complementarity between the firm and the acquisition target’s businesses. We show that business similarity restricts value creation and capture in the alliance because of the intensifying competition with the partner following the acquisition, whereas business complementarity creates opportunities for new synergies and thus enhances the alliance’s value to the firm. In that sense, acquisitions rejuvenate the complementary resources of alliance partners, which otherwise diminish in value over time (Dyer et al., 2018). This insight informs research on acquisitions, which has highlighted only the immediate benefits of combining the resources of the acquirer and its target (Graebner & Eisenhardt, 2004).

Moreover, our study offers insights into the role of relational embeddedness in leveraging third-party resources. Embedded relations imply close and trusting engagements (Uzzi, 1996). Hence, the counterintuitive role of embeddedness in reinforcing the caveats of business similarity between a firm and its partner’s target are ascribed to betrayal of trust and fear of knowledge spillover. When a firm and its partner have developed an embedded relation, one would not expect a trusted partner to acquire a target that directly competes with the firm. Such an acquisition either follows a breakdown of trust with that partner (Harmon, Kim, & Mayer, 2015) or may result in such a breakdown. In either case, the acquisition undermines the embedded relation (Rogan, 2014) and intensifies the competitive tension between the firm and its partner, and thus may invoke opportunistic and non-cooperative behaviors (Khanna et al., 1998). Moreover, in an embedded relation, the firm tends to share tacit knowledge and proprietary assets with its partner, which can endanger its competitive position if these assets find their way to a competitor. In that regard, relational embeddedness creates vulnerability to opportunistic behavior of the acquiring partner, who may act in self-interest (Poppo, Zhou, & Zenger, 2008). Following a partner’s acquisition, the strategic orientation of the partner may become unfavorable to the firm, so that the scenario of unintended knowledge spillover to a competitor may materialize (Rogan, 2014).

Nevertheless, betrayal of trust and knowledge spillover cannot explain why relational embeddedness undermines the value of business complementarity with the target. Our explanation relates to routine rigidity. The rigidity of relation-specific routines prevents synergies between a firm, its partner, and the acquired target because the parties are unable to adapt established routines or create new routines. In embedded relations, the parties tend to develop relation-specific routines, but over time, these routines can become rigid (Findikoglu & Lavie, 2019), which entrenches the parties into patterns of collaboration that limit search for new resource combinations (Gulati & Gargiulo, 1999). Post-acquisition modifications are needed because the target introduces complementary resources that are new to the partner and to the alliance. Unfortunately, modifications in relation-specific routines are challenging because of routine rigidity. Hence, the relation-specific routines that the firm has previously developed with the partner may be ill suited for supporting value creation in their alliance following the acquisition. These insights inform alliance research, which has underscored the challenge of managing alliances. The dyadic emphasis of such research has taken attention away from seemingly unrelated partner initiatives that go beyond the scope of the alliance, such as the partner’s acquisitions, which have been assumed to be exogenous if not assumed away. These corporate initiatives are difficult to observe, foresee, and react to. However, our study demonstrates that they are consequential for the alliance.

**REFERENCES AVAILABLE FROM THE AUTHORS**