

Synergy in Mergers and Acquisitions: Typology, Lifecycles, and Value

Emilie R. Feldman*

feldmane@wharton.upenn.edu

Exequiel Hernandez*

exequiel@wharton.upenn.edu

The Wharton School

*Authors listed alphabetically and contributed equally

Abstract

Value in mergers and acquisitions derives from the synergistic combination the acquirer and target. We advance this conceptualization of synergies in three ways. First, we develop a theoretically-motivated, parsimonious typology of five sources of synergy based on two underlying dimensions: the level of analysis at which valuable activities occur and the governance orientation by which those activities are managed. In so doing, not only do we classify synergies that have long been considered in the literature (internal and market power), but we also uncover three new types (relational, network, and stakeholder). Second, we introduce the concept of “synergy lifecycles” to explore how the timing of initial realization and the duration of gains vary across the five synergies based on differences in the amount of post-merger integration required and in the control the acquiring firm has over the value-creating assets and activities combined by the merger. Third, we consider how the synergy types interact, yielding co-synergies when they reinforce each other and dis-synergies when they offset one other. This enables us to revise and expand the traditional conceptualization of the total value created by M&A as the sum of each of the synergy types, their co-synergies, and their dis-synergies.

Keywords: mergers and acquisitions, synergy typology, synergy lifecycles, co-synergy, dis-synergy, post-merger integration, value, corporate strategy

We thank AMR editor Joe Mahoney and the anonymous reviewers, Aline Gatignon, Mae McDonnell, Ethan Mollick, Kate Odziemkowska, Mario Schijven, Myles Shaver, Harbir Singh, David Souder, and seminar participants at Wharton, the 2018 Strategy Research Forum Meeting, and the 2018 Consortium for Research in Strategy for helpful comments; and Logan Bryan, Enrico Doria, and Joachim Piotrowski for research assistance. The usual disclaimers apply.

The purpose of this paper is to introduce a typology of synergies that broadens our understanding of the sources of value creation and advances a dynamic notion of value realization in mergers and acquisitions (M&A). Defined as a combination of two firms' assets that are more valuable together than they are separately, synergy has been invoked by scholars from multiple disciplines (*e.g.*, management, finance, accounting) using multiple theoretical lenses (*e.g.*, resource-based view, IO economics, resource dependence) (Haspeslagh & Jemison, 1991; Shaver, 2006). The broad appeal of the concept lies in its generality: any two resources or assets joined via an acquisition can potentially create synergy and thus be a source of value. But this generality has also led to a lack of systematic development and synthesis, which hinders theoretical progress and limits the relevance of the concept for scholars and managers.

One explanation for these limitations is that the literature on synergy in M&A has not kept pace with theoretical advancements pertaining to the sources of value creation for firms. The two dominant paradigms in strategy—market power (in the IO economics tradition) and efficiency (in the RBV/capabilities tradition)—have led M&A scholarship to focus on two kinds of synergies: “market power” and “operational” (Chatterjee, 1986; Devos, Kadapakkam, & Krishnamurthy, 2009; Rabier, 2017). These literatures typically assume ownership and control of value-generating assets by the firm (Lavie, 2006). Yet, for several years now, other research traditions have shown that additional sources of value with distinct economic logics exist *outside* of the firm, in its cooperative environment. The relational view demonstrates that collaborative vertical or horizontal relationships with individual partners are uniquely important to profitability (Dyer & Singh, 1998; Lavie, 2006). The social networks perspective goes a step further, showing the value exists in the structure created by firms' direct and indirect ties (*e.g.*, Gulati, 1998). And stakeholder theory advances the notion that relationships with non-market actors play a crucial role in the ability of firms to appropriate value from their environments (*e.g.*, Freeman, 1984; Henisz, Dorobantu, & Nartey, 2014). An acquisition is likely to affect not only the competitive landscape and the internal resources of firms, but also their external *cooperative* environments by reshaping relationships with individual partners (*e.g.* Pfeffer & Salancik, 1978; Rogan & Greve,

2015), restructuring external networks (e.g. Hernandez & Menon, 2018; Hernandez & Shaver, 2019), and reshaping coalitions and relationships with non-market stakeholders (e.g. Deng, Kang, & Low, 2013). Yet these effects, and the theoretical perspectives that underpin them, have not systematically made their way into the M&A literature.

We seek to incorporate these theoretical perspectives into M&A research by advancing three ideas. First, we develop a theoretically parsimonious typology of five sources of synergy based on two underlying dimensions: the level of analysis at which valuable activities occur (firm, dyad, network, industry, or institutional context), and the governance orientation by which those activities are managed (fiat, cooperation, or market competition). Not only do we classify synergies that have long been considered in the literature (internal, also known as operational, and market power), but we also introduce three new types of synergies that have received little attention so far (relational, network, and non-market). The five synergies we identify map onto distinct theories of economic rent generation: resource/capability theories, IO economics, the relational view, social networks theory, and stakeholder theory.

Second, we introduce dynamic considerations to the process of value realization in M&A by developing the concept of “synergy lifecycles.” Research on post-merger integration has mainly provided insights on processes affecting the realization of internal/operational synergies (e.g. Graebner, 2004; Meyer & Lieb-Dóczy, 2003; Sherman & Rupert, 2006), but not on other sources of value. We argue that the five synergy types differ in the extent to which they require post-merger integration, which affects the timing of initial synergy realization, and in the control that the acquirer has over the assets and activities that generate value, which affects the duration of synergy gains. These two phases—realization and duration—constitute the synergy lifecycle. We develop testable propositions explaining differences in the realization and duration of synergy gains *across* synergy types, and propositions about factors that create variance in the timing of the two phases *within* types. Ideas pertaining to the dynamics of synergies are notably missing from the literature—especially the notion that different types of synergies exhibit

distinct lifecycles. These heterogeneous dynamics are important because they affect the magnitude and duration of value that firms can obtain from M&A.

Third, we explore how each of the five synergy types interacts with the other four, potentially creating co-synergies and dis-synergies. Co-synergies arise when two or more distinct sources of value reinforce each other, and dis-synergies arise when they offset one another. We link these interactions across synergy types to the distinct economic logics and lifecycles that give rise to each type. Doing so allows us to advance a more comprehensive notion of the total value created by a deal, which is the sum of (1) the value created by each individual synergy type, (2) the co-synergies across types, and (3) the dis-synergies across types. This broadened conceptualization raises considerations pertaining to the measurement and timing of value created by M&A that would not otherwise become apparent.

BACKGROUND

Synergy in M&A arises when the value of the acquirer and target operating as a single entity exceeds the combined value of the two firms operating individually: $\text{Value}[A+T] > \text{Value}[A] + \text{Value}[T]$. Ultimately, synergies create value when they increase revenues or lower costs (Shaver, 2006), conditional on the acquirer paying a price for the target that does not exceed the value created (Barney, 1988). But revenues and costs are not synergies per se, nor are other commonly-used metrics intended to measure synergies like abnormal stock returns or operational profits (Sheen, 2014 offers an insightful discussion of this issue). At best, those are manifestations of the underlying sources of value that combine to produce synergy. Until now, the literature has focused on understanding and measuring synergy manifestations, which is important because it helps us understand *whether* synergy exists.

We focus on a less well understood issue: the underlying *causes* of synergy—where do they come from? A cause-focused view of synergy seems to fit better with the essence of the concept. Synergy arises from the combination of two firms' pre-existing assets (broadly defined),

and value stems from the complementarity or fit of such a combination.¹ Hence, a natural starting point is to ask what kinds of assets are being combined by an acquisition, why such a combination is valuable, and what it takes to successfully achieve it given the nature of the assets involved. Our first objective is to develop a parsimonious, theoretically-grounded typology of synergies based on distinct sources of value. We then explore how such a typology can enhance our understanding of how to dynamically manage and successfully achieve different types of synergies, yielding a more comprehensive understanding of the total value created by a deal.

Notions of Value in Prior M&A Research

State of the Literature. Before developing our typology of synergies, it is important to position our efforts in the context of prior literature. We conducted a systematic review of the literature on value or synergy in the context of M&A using on the methodology followed by Crossan and Apaydin (2010). The details and findings of the review are fully available in Appendix 1. We draw on the findings of that literature review here and in other parts of the paper as necessary to justify and develop our framework.

Prior work has discussed several different types or sources of value in the context of M&A (e.g. Chatterjee, 1986; Devos et al., 2009; Rabier, 2017). Figure A1-2 of Appendix 1 depicts the frequency with which those types are invoked in the literature. The two most common perspectives are synergies from internal operational/efficiency improvements (47.1%) or from increases in firms' market power (16.5%)—these are mentioned in virtually all fields studying M&A such as management, financial economics, or marketing. As will be discussed later in this subsection, studies in finance and accounting also consider the financial or tax benefits of acquisitions (7.6%), and another common view focuses on agency or governance misalignments as constraints to value creation and appropriation (16.2%).

¹ We use complementarity in its broad sense, indicating the fit between two things. The M&A literature has at times used complementarity to refer to 'different' or unrelated resources, as opposed to 'similar' or related resources (Barney, 1988; Lubatkin, 1987; Salter & Weinhold, 1979; Singh & Montgomery, 1987). Complementarity encompasses both. A synergy could arise from combinations of similar or dissimilar assets (*e.g.*, economies of scale vs. a novel product, respectively), as long as they allow the firm to enhance revenues or lower costs (Chatterjee, 1986). Distinguishing between relatedness and unrelatedness is not necessary for our purposes, so we sidestep that literature (but review it in Appendix 1). Instead, we use complementarity as a higher order term that covers both.

However, the synergy categories mentioned in virtually all the peer reviewed work we evaluated are not developed as part of a systematic theoretical framework seeking to explain where economic rents come from. Rather, they are a secondary part of studies with a primary focus on explaining their manifestations (*i.e.*, M&A performance).² Indeed, the most highly cited article we reviewed makes the following point: “We hope that ... merger research will move beyond the basic issue of measuring and assigning gains and losses to tackle the more fundamental question of how mergers actually create or destroy value.” (Andrade, Mitchell, & Stafford, 2001). Consistent with this call, our interest is in the theoretical underpinnings of factors that function as *sources* of value or rents in the context of M&A.

The emphasis on operational/efficiency and market power synergies can be traced to the influence of two theoretical perspectives: IO economics and the resource-based/capabilities view (RBV), which conceptualize rents as arising from either the firm’s positioning within an industry or the firm’s internal ownership of valuable and hard-to-copy resources, respectively (Porter, 1980; Wernerfelt, 1984). These have clearly been the two dominant views of value creation in the corporate strategy literature. Montgomery (1994) offers an excellent summary of these perspectives (which she labels as market power vs. efficiency) as they apply to corporate diversification.

Agency theory is another major perspective in the study of M&A and diversification (e.g. Fama & Jensen, 1983; Montgomery, 1994). However, it is less a theory of value creation than one of value destruction or appropriation. Agency studies, with their focus on governance mechanisms that align the interests of managers and shareholders, explain why incentive and behavioral problems may lead to suboptimal value capture, as well as why certain parties (e.g. managers) may appropriate some of the value that shareholders should have received from M&A. Hence, agency theory can explain why firms undertake M&A (Malmendier & Tate, 2005), but not how value is created.

² Puranam and Vanneste (2016) develop a more systematic typology in their book, which we consider later.

Various studies, mainly in finance and accounting, invoke the idea of financial synergies (e.g. Chatterjee, 1986; Leland, 2007), typically reflecting balance sheet benefits such as the ability to pay lower taxes (e.g. tax inversions), to lower the cost of capital (e.g. reducing earnings cyclicity), to make use of net operating losses, or to utilize excess cash or overvalued stock. While all of these are important benefits that firms might realize when undertaking M&A deals, they usually are manifestations rather than causes of value. The rest of the paper will show how different financial benefits fall under one of the five cause-focused synergies in our typology.

Updating the Theoretical Sources of Synergy in M&A. While the RBV/capabilities and IO traditions have enriched our understanding of where value comes from in M&A, we argue that at least three theoretical developments in the broader management field since the late 1990's need to be more directly incorporated into our understanding of how acquisitions generate value: the relational view, the social networks perspective, and non-market stakeholder theory. Further, we suggest that the incorporation of those theories requires us to revisit how some classic theories—in particular resource-dependence theory (RDT), TCE, and institutional theory—affect our understanding of where synergies come from.

Several organizational theories, including contingency, institutional, and RDT have long made the point that “the environment” has a powerful influence on the actions of firms (DiMaggio & Powell, 1983; Donaldson, 2001; Pfeffer & Salancik, 1978). RDT played a particularly important role by arguing that the environment comprises other firms with resources and interests, and that a critical aspect of firm behavior is to reduce dependence on other organizations in that environment (Pfeffer & Salancik, 1978). Hence, firms engage in corporate activities such as acquisitions, board interlocks, and alliances as a means of managing or coopting dependencies to increase their power vis-à-vis other organizations (see Wry, Cobb, & Aldrich, 2013 for a review). While M&A studies have incorporated RDT considerations, they have focused on acquisitions as means of reducing the power of other organizations in the market/industry environment—i.e. on *competitive* relationships—by internalizing control of necessary resources (e.g. Burt, 1983).

But outside of the M&A literature, RDT influenced the rise of three literatures focused on *cooperative* external relationships: the relational view, the networks perspective, and stakeholder theory. The relational view shows that value can arise from sharing resources with individual partners outside the boundaries of the firm (e.g. Dyer & Singh, 1998; Lavie, 2006). The social networks perspective demonstrates that the structure created by the aggregation of multiple dyadic ties (including direct and indirect connections) has value beyond that of any individual tie (e.g. Gulati, 1998; Zaheer, Gözübüyük, & Milanov, 2010). And stakeholder theory emphasizes that relations with non-market actors (e.g. governments, NGOs, the media, communities) play an important part in firms' ability to appropriate economic value from their environments (e.g. Freeman, 1984; Henisz et al., 2014).

Each literature provides a deeper and more nuanced understanding of different levels of “the environment”, which classic literatures like RDT or institutional theory had defined quite broadly. The relational view sheds light on the dyadic environment most proximate to the firm, the networks perspective on the environment comprised of other organizations directly and indirectly linked to the firm, and stakeholder theory on the institutional environment comprising salient non-market actors. Of course, these three literatures were not influenced only by RDT. They are also extensions of the RBV/capabilities perspective in strategy, extending it to include sources of *external* resources that firms do not own but can *access* by managing *cooperative* relationships with market and non-market actors (Lavie, 2006). Yet our literature strikingly reveals that external cooperative relationships are mentioned as sources of value in fewer than 5% of studies (some exceptions include Deng et al., 2013; Hernandez & Menon, 2018; Krishnan, Joshi, & Krishnan, 2004; Rogan & Greve, 2015)).

Relatedly, the M&A literature has lagged in incorporating advances in TCE that accounted for “hybrid” governance structures (e.g. alliances, JVs). While the initial formulation of TCE focused on markets vs. hierarchies may have been sufficient to account for traditional views of why M&As occur (Schilling & Steensma, 2002; Williamson, 1975), the explosion of research on interorganizational relations led TCE scholars to consider transaction costs that lead

firms to adopt a third kind of governance solution that is neither market nor hierarchy, and thus a “hybrid.” While some scholars have disagreed with the hybrid characterization in general (Powell, 1990) and its application to M&A specifically (Schilling & Steensma, 2002), the dichotomy between firms and markets is insufficient to understand the organizational choices firms make to capture value in corporate transactions like M&A. Of course, the broader corporate strategy literature has accounted for “hybrid” organizational forms, heavily studying alliances (e.g. Gulati, 1998). But the literature on interfirm relationships has developed independently from that focused on M&A, which has done little to explore how acquisitions modify the value firms obtain from external cooperative relationships. To be clear, from a TCE perspective *all* acquisitions involve a decision to govern activities internally. But we add an important point: the choice to internalize the target can also cause shifts in *other* value-relevant assets, activities, and relationships that are not located within the boundaries of either the acquirer or the target but which can affect the value created by the combination of the two firms.³

In addition to these theoretical issues, some executives we spoke to expressed that they rely on a more expansive set of factors than the existing academic literature would suggest when considering the value created by acquisitions. To complement our conceptual research, we spoke to five highly placed M&A executives from some of the largest firms in the world (each would be in the top 3 globally in its respective industry). These interviews occurred after we developed our framework, so they were not used to develop theory. Instead, they provided a useful means of triangulation to see if our ideas resonate with managers involved in M&A practice. Three of these managers told us that they consider synergy arising from external or “third-party” cooperative relationships in their deals (two said they never do). One said that their firm “always” considers how deals will affect or be affected by third parties with whom they have cooperative ties: “sometimes [those considerations] are big enough to go into the base-case of

³ The development of value-based strategy (VBS) (Brandenburger & Stuart, 1996) has been another important advancement in our understanding of rent generation by firms. We do not incorporate VBS directly into our framework because each of the synergy types we consider can affect the willingness to pay or the opportunities of their own or their rivals’ buyers and suppliers. Put differently, synergies are an antecedent to value creation as explained by VBS. We elaborate on this point towards the end of the paper.

our valuation model directly, sometimes it goes into [factors that could modify the base-case valuation], and sometimes it's something we just have to manage as part of the deal.” Another person who advises firms engaging in M&A told us that they see issues pertaining to third parties arise frequently, and went as far as suggesting that we use recent airline mergers as a case to illustrate our framework (which we do later in the paper). We will refer to examples or quotations from these interviews as appropriate throughout the paper.

Given these theoretical and practical considerations, we propose an updated typology of synergies that (1) focuses on *sources* (not manifestations) of value creation, (2) preserves classic notions of value already widely used in the literature, and (3) incorporates more recent advances pertaining to external cooperative sources of value in the broader management and strategy literatures. Specifically, we will argue that the relational, network, and non-market stakeholder perspectives have sufficiently distinct logics of economic value so as to merit separate consideration in terms of how they give rise to synergies in M&A. We propose five synergy types: internal, market power, relational, network, and non-market. In the following section, we explain the underpinning constructs that give rise to these synergy types. Then we consider how the distinctions between synergies create unique lifecycles. Afterwards, we consider how the five synergies can reinforce or undermine one another. We conclude by discussing the implications of our typology for a much more expansive understanding of the total value created by M&A.

A TYPOLOGY OF SYNERGIES

The typology of synergies that we propose rests on two underlying dimensions, as depicted in Figure 1: one is the governance orientation of the relationship that creates synergies for the merging firms, and the other is the level of analysis at which the activities that create synergistic value occur. The governance orientation ranges from *fiat*, where the merging firms exercise full control and authority over the internal assets and resources that will generate synergies; to *cooperation*, where the merging firms must collaborate to some degree with one or more external third parties to generate synergies; to *market competition*, where the merging firms engage in competitive interactions with one or more external parties and synergies result from

the M&A deal altering the nature of that competition. The three governance orientations can be traced directly to the TCE distinction between hierarchy (fiat), market (competition), and hybrid (cooperation) (Williamson, 1991). We use labels focused on the governance orientation rather than the organizational solution because it is more appropriate for explaining the locus of value, as will become more apparent later.

The governance orientation is insufficient to explain the locus of value because the interactions that affect value creation for the firm post-acquisition occur at distinct levels of analysis. When value comes from relationships governed by fiat, the key activities occur within firm boundaries. Every other synergy type occurs outside the boundaries of the combined firm (acquirer + target). The most immediate level beyond the firm is the *dyad*, where the combination of the acquirer and the target can affect the value of their contractual partnerships with an individual third party (e.g. a supplier). The next level is the *network*, composed of the totality of the combined firms' contractual cooperative ties (both direct and indirect), such as alliances, and the combination of the acquirer and the target can modify their structural position within the network composed of those cooperative ties. Beyond the network are interactions with other actors not necessarily contractually involved with the focal firm, but whose activities affect the value it can create and capture. Some of those interactions are competitive—as the literature has long known, value is affected by competitive interactions in the industry or market with rivals, suppliers, or buyers.⁴ Finally, at the highest level is the *institutional environment*, where the combination of the acquirer and the target modifies the value of their relationships with non-market stakeholders. Figure 2 presents the level of analysis dimension in a different manner, to show the variety and complexity of the interactions and relationships among distinct players in the acquirer's environment that give rise to potential synergies of different types.

⁴ We consider the industry/market to be at a higher level than the ego network. The network is composed strictly of actors involved in the productive operational activities of the firm. The industry environment contains some of those actors (e.g. suppliers, buyers) but also others not contractually involved in the operational activities of the firm (e.g. rivals and their suppliers and buyers). The boundaries are admittedly fuzzy, but we believe that network partners are more “proximate” to the core activities of the focal firm than most players in the broader industry.

Juxtaposing the two dimensions allows us to parsimoniously define and classify the five kinds of synergies in our typology: internal, market power, relational, network, and non-market. We elaborate on each of the five synergy types and their key distinctions in the following sections. To aid in this exercise, we have developed Table 1 to summarize the main attributes of each synergy type, and Table 2 to articulate the key distinctions between pairs of synergy types.

[FIGURES 1-2 AND TABLES 1-2 HERE]

Precedent. Before proceeding, it is worth recognizing that Puranam and Vanneste (2016) offer a typology of synergies based on two dimensions: the level of resource modification required post-acquisition, and the similarity between those resources. This leads to four synergy types in their framework: combination (high similarity, low modification), consolidation (high similarity, high modification), customization (low similarity, high modification), and connection (low similarity, low modification). We believe our effort builds on but differs from theirs in the following ways. First, the focus of their typology is on explaining what firms must *do* internally to achieve synergies post-acquisition, whereas our framework seeks to explain the distinct *sources* of synergies. We view resource similarity or need for modification as important for synergy achievement but not as central to defining where synergies come from. We will focus later on what firms need to do to achieve each synergy type in the section on synergy lifecycles. Second, Puranam and Vanneste's framework is based on the achievement of operational or market power synergies created by common ownership, as discussed in prior M&A research. Our typology also encompasses synergies arising from external cooperative relationships in which the combined firm generates value with a third party not involved in the acquisition. We believe Puranam and Vanneste's framework can apply to our five synergy types, in the sense that each could involve resources with varying degrees of similarity and require varying degree of modification.

We now define and explain each of the five synergies in our typology. We begin with the two commonly known in prior literature, internal and market power, and then turn to the three new types we introduce: relational, network, and non-market.

Internal Synergies

In the management literature, the most dominant perspective on M&A is from studies that draw resource/capability (RBV) theories, in which the source of economic rents is “efficiency” (vs. market power). The synergies usually considered by scholars in this tradition are based on tangible or intangible factors that merging firms legally own and control, allowing firms to govern valuable assets through fiat. This is depicted in Figure 2 by looking only at A (acquirer) and T (target) and the resources each internally owns. While many kinds of internal resources can be recombined (*e.g.*, machinery, R&D pipelines, employees, and teams), the underlying engine of value is the same: common ownership is more valuable than separate ownership because of some kind of complementarity. We call these “internal synergies”.⁵

Figure 2 also depicts another important point: internal synergies do not require the combination of any of the external elements of the firms’ environment such as suppliers, buyers, alliance partners, or stakeholders. These may be *affected* by the merger (*e.g.*, the combined technologies of A and T increase demand from buyers), but the *underlying source of value* lies within the boundaries of the combined entity. This point will become clearer as we discuss the other synergy types and their key differences, as outlined in Table 2.

As an example of internal synergies,⁶ Cadbury Schweppes bought Adams from Pfizer in 2002. Cadbury had strong capabilities in the chocolate and soda submarkets of the global confectionary industry, and a significant geographic presence in the Commonwealth countries. Adams, a U.S.-based subsidiary of a global pharmaceutical company, offered market-leading products and innovation capabilities in gum, an adjacent submarket within the global confectionary industry. This deal reflects internal synergies due to the clear value that could be created from the combination of Cadbury’s and Adams’ internal assets and capabilities in complementary geographies and product lines.

⁵ Prior work often calls these “operational” synergies. We use the label “internal” because it better reflects the distinctive characteristics of this source of value per the two dimensions discussed in the previous section.

⁶ We offer examples of the various synergy types throughout the paper for illustrative purposes, acknowledging that they may not fully reflect the ideal types reflected in our theorizing.

Market Power Synergies

The second most common perspective in the literature on synergies draws from industrial organization (IO) economics, which emphasizes competitive interactions through ‘vertical’ exchanges with suppliers and buyers or ‘horizontal’ exchanges with rivals. Economic rents arise from reducing the power of counterparties in market-governed interactions. Hence, synergies in M&A are based on vertical integration to gain buying or pricing power, acquiring rivals to eliminate them from the industry, or other actions that give the firm influence in the market. Sometimes these combinations are additive in the sense that they increase the scale or scope of the firm (*e.g.*, combining supply chains), and sometimes they are subtractive in the sense that they eliminate a redundant asset from the market (*e.g.*, eliminating the target’s supply chain).⁷ This underscores the point that market power synergies result from a competitive governance orientation. Figure 2 depicts how market power synergies arise from changes in the external competitive context of the acquirer and target, which encompasses the relationship between those two entities (if they are rivals) or the relationships of these two firms with their buyers and suppliers.

As an example, BB&T and SunTrust Bank, respectively the tenth- and eleventh-largest bank holding companies in the United States, announced in February 2019 that they would merge in a \$66 billion deal that would make them the sixth-largest bank in the U.S. Although not emphasized by the banks, a key benefit they expected was the ability to charge consumers higher rates on checking and savings accounts and mortgages, as well as higher banking fees. These effects tend to be significant in regional markets like the one that BB&T and SunTrust serves (the southeastern U.S.), where attaining greater market share and facing less competition promotes pricing power. As Greg McBride, chief financial analyst at Bankrate, says: “Until

⁷ When we speak of market power synergy, we refer to the profits it can generate for the combined firm, not to the social value or welfare effects of the deal (which may be negative). Market power synergies may raise antitrust concerns when they limit competition or hurt consumers in a particular market, and deals that surpass certain thresholds of anticompetitive behavior may be blocked. For this reason, firms may not readily admit that their deals may generate market power synergies, even though this type of gain is common.

consumers and business get smarter about where they're keeping their money, most banks are not going to compete on price" (Passy, 2019).

Relational Synergies

While resource-based theories emphasize the ownership of internal assets, research on interfirm relationships recognizes that value can arise from access to shared assets with other firms (Elfenbein & Zenger, 2013; Lavie, 2006). This includes perspectives such as the relational view (Dyer & Singh, 1998) and relational contracting (Baker, Gibbons, & Murphy, 2002; Poppo & Zenger, 2002), which emphasize partner-specific relational assets such as trust, governance routines, contracting capabilities, or knowledge-exchange capacity (Dyer & Singh, 1998; Elfenbein & Zenger, 2013; Zaheer, McEvily, & Perrone, 1998). A relational synergy in acquisitions arises when the combination of the acquirer and target enhances the profitability of individual external relationships. We do not refer to the relationship between acquirer and target, but that of the combined firm with third parties affected by the merger (Rogan, 2013; Rogan & Greve, 2015; Wiles, Morgan, & Rego, 2012). Such a relationship could be vertical (with suppliers or buyers) or horizontal (with alliance partners or other collaborators).

Figure 2 depicts the potential for relational synergies by showing that the combination of A and T may help the combined entity create more value from external relationships with other firms like p1, p3, or p5. The key feature of relational rents is that they arise from partner-specific assets (Dyer & Singh, 1998). As denoted in Table 2, this contrasts with internal synergies, which are driven *only* by the combination of assets fully owned and controlled by the acquirer and target. For example, two firms may combine their alliance management capabilities (Kale, Dyer, & Singh, 2002), which allows them to better manage *any* collaborative project. That would be an internal synergy. In contrast, relational synergies involve the creation or improvement of partner-specific assets that allow the combined firm (A+T) to derive more value from *specific* partners (e.g., p2 or p4). Relational synergies thus involve a mix of internal and external assets. For instance, two firms that had a common supplier pre-acquisition may enhance their relationship with that supplier once they have merged. This will require internal changes in terms of

combining personnel with pre-existing relationships with the supplier—similar to internal synergies—as well as external changes in how the supplier now relates to the combined firm.

Relational synergies have a commonality with market power synergies in that they arise from making interactions with other firms (vertically or horizontally) more profitable. But they are distinct in two ways, as summarized in Table 2. First, the exchange producing relational rents between the focal firm and the external party must be cooperative, not competitive (Dyer & Singh, 1998). Second, market power synergies give the acquirer power over a counterparty (zero sum), while relational synergies allow *both* parties to create and appropriate more value.

The merger between Procter and Gamble (P&G) and Gillette illustrates some aspects of relational synergies. Gillette offered a set of trade terms and promotional incentives to its customers that P&G had never before implemented but decided to adopt upon the completion of the deal. As a result, according to Bob McDonald, COO of P&G after the merger, “In this hybrid model, P&G would provide the value of its broad product line and likely get favorable payment terms. It would then combine them with Gillette’s return-on-investment, pay-for-performance criteria on the demand-creation side to create an integrated trade terms model” (Kanter & Bird, 2009). These points suggest that two important improvements in bilateral relationships with customers (*e.g.*, retailers, distributors) emerged as a result of the merger between P&G and Gillette: the ability to attract more customers to the combined company (an internal synergy), and to transact more effectively with each of those customers than P&G had been able to independently by offering terms that were more attractive for both sides (a relational synergy). P&G may also have gained greater power over buyers (a market power synergy), but the firm was surprised that it could create more joint value with its existing buyers after the deal.

Network Synergies

Beyond the value of well-managed dyadic relationships, the structural position a firm occupies in the network generated by a firm’s direct and indirect ties can be a source of value. These structures are manifested in metrics such as centrality, structural holes, or equivalence (Gulati, 1998). Recently, a series of studies have demonstrated that a firm may pursue “network

synergies” by acquiring a target whose alliance network, when combined with that of the acquirer, puts the combined entity in an improved structural position in the network (Hernandez & Menon, 2018, 2019; Hernandez & Shaver, 2019). From a network lens, an acquisition can be seen as a “collapse” of two nodes in which the acquirer inherits the contractual ties of the target. Thus, a single transaction allows an acquirer to reshape its own structural position and that of others in a fairly radical manner.

Network synergies are driven by two kinds of structural changes: inheriting new and non-redundant ties that the target firm brings to the acquirer’s pre-existing network; or eliminating redundant ties that the acquirer and target had in common (Hernandez & Shaver, 2019). In the first case, value comes from accessing novel network connections (Saboo, Sharma, Chakravarty, & Kumar, 2017). Indeed, when executives spoke to use about network synergies during our interviews, they typically did so by referring to opportunities that a deal created to form a series of new partnerships with third parties. In the second case, value can arise from enhancing exclusivity (and thus control) over network partners and their resources. Figure 3 depicts this using two stylized cases: one in which A inherits three novel connections by taking over T’s contractual alliances, and another in which A becomes the sole hub linking four partners that were previously redundant with T.

[FIGURE 3 HERE]

While the locus of value lies in cooperative external ties for both network and relational synergies, they differ in their level of analysis (see Figure 2 and Table 2). Relational synergies enhance *individual direct ties* through joint value creation (*i.e.*, improving the strength or quality of a single tie). Network synergies improve the position of the acquirer in a network consisting of multiple ties, encompassing the totality of direct ties *and* indirect ties of the combined firms. Market power synergies could be thought of narrowly in network terms: the acquirer gains influence by eliminating a node from the network (*e.g.*, a rival) or by eliminating a vertical tie from the network (*e.g.*, removing a redundant supplier or buyer). But this differs from network synergies in two ways. First, the market power scenario is based on changes in individual links

(e.g. eliminating a single supplier)—not on enhancing the structure the entire network (direct and indirect ties) created by combining all of the acquirer’s and target’s ties. Second, the governance orientation of the relationships giving rise to network synergies is cooperative, whereas the interactions giving rise to market power synergies are governed by a competitive market logic.

In 2004 the life sciences company QLT acquired Atrix Laboratories. As summarized by Hernandez and Shaver (2019:181): “The press briefing mentioned the expected synergies coming from “economies of scale, distribution synergies, [and] complementary product portfolios” (PR Newswire, 2004), but it also added that Atrix’s “established strategic alliances with such pharmaceutical companies as Pfizer, Novartis, Sanofi-Synthelabo, Fujisawa and Aventis” were important sources of value for QLT (PR Newswire, 2004). And [reflective of synergies from combining the two firms’ alliance networks, the press release states that], “this transaction will accelerate both companies’ strategic initiatives [through] *multiple partnered commercial and near commercial products . . . beyond what either company might have achieved independently*” (PR Newswire, 2004)” [comments in brackets and emphasis added].

While not perfectly reflective of network synergies, because the press release does not mention second- or third-order ties affecting the network structure, the unique aspect of the QLT-Atrix deal is the understanding of the value of combining Atrix’s full portfolio (vs. a single tie) of R&D alliances with that of QLT to generate a new portfolio of partnered projects.

Non-Market Synergies

The fifth category is non-market synergies. As Bosse, Harrison, and Hoskisson (2018:13) state, “acquisitions bring multiple stakeholder[s] together...,” including those inside and outside the firm. We are concerned primarily with non-market stakeholders that have no direct, contractual relationship with the acquirer or target. This view includes non-market strategy literatures on stakeholder management (Henisz et al., 2014), corporate social responsibility (Cochran & Wood, 1984), and social movements (McAdam & McCarthy, 1996). In these theories, value comes from the approbation of stakeholders. This engine of value matters when gatekeepers affect a firm’s ability to pursue a profitable endeavor, such as governments that

control licenses to operate or NGOs that confer social approval upon a firm's actions. The underlying asset being dealt is legitimacy (DiMaggio & Powell, 1983), which can be a key source of economic rents (Ahuja & Yayavaram, 2011).

Research distinguishes between stakeholders (*e.g.*, community, government, trade associations, non-profits, academia) and social issues (*e.g.*, the environment, diversity, human rights, labor). Synergies may arise from combinations of stakeholders with interest in similar issues (*e.g.* women's rights), or from creating novel coalitions of stakeholders with interest in dissimilar but convergent issues (*e.g.*, women's rights and diversity in general).⁸ Most of the executives we spoke to told us that no deal is worthwhile if it damages the reputation the firm has developed over many years with its stakeholders, even if that deal has an otherwise positive NPV. Interestingly, one seasoned executive told us that "our stakeholders seem to grow every year" because of increased segmentation among stakeholders into specialized issues/interests and because stakeholder needs were becoming more unique within national markets. The implication was that non-market considerations in acquisitions are becoming more important over time.

Non-market synergies are similar to relational and network synergies in the sense that both result from relationships governed by a cooperative orientation. All three depend on good relations with external parties, but stakeholder synergies involve interactions with a different class of actor (see Figure 2 and Table 2). Non-market stakeholders operate at a higher level in the institutional realm, beyond the specific industry or network of contractual ties in which the firm conducts its market-based activities. Non-market synergies bring together two or more parties with distinct societal roles, such as a firm and an NGO, within the realm of non-market strategy (see Figure 2). Value arises from one party legitimating the other, or both co-legitimizing each other, rather than from efficiency or market power. Relational and network synergies, in contrast,

⁸ Bosse *et al.*, (2018) develop the concept of "stakeholder economies of scope," with some similarities to our idea of non-market synergies. However, their focus is on the "primary stakeholders" of the acquirer and target—employees, customers, suppliers, and capital providers. Our emphasis is on stakeholders *outside* the boundaries of the firm (*e.g.*, regulators, communities, media, NGOs) and their legitimating effect on the firm, rather than on their direct contributions to costs and revenues through contractual activities. Primary stakeholder fall under our other synergy categories (*e.g.*, employees contribute to internal synergies, and suppliers to relational and network synergies).

bring together two or more firms with common economic interests (e.g., a buyer and a supplier), usually governed by a legal contract, falling within the realm of market strategy.

As an example of non-market synergies, Unilever acquired the famously outspoken and socially-conscious ice-cream maker Ben & Jerry's in 2000. The deal raised eyebrows among stakeholders of both companies: Unilever's were unsure what to make of the quirky target, and Ben & Jerry's worried that the firm's social mission would erode after being taken over by a multinational behemoth (Austin & Quinn, 2005). But Unilever saw it differently. The deal was not just a way to gain a valuable consumer brand, but an opportunity to signal its intent to take CSR seriously (for which Unilever eventually came to be known) in the eyes of both firms' non-market stakeholders (e.g. environmental activists, regulators, the media). Terms of the deal included pledges to preserve Ben & Jerry's socially responsible practices (Bourgeois III, Mariani, & Yu, 2003). And Ben Cohen, founder of Ben & Jerry's, expressed that "what Ben & Jerry's is in the process of becoming is an entity inside a larger business, trying to infuse [social] values in that larger business" (Bourgeois III et al., 2003). The key challenge of this acquisitions was the combination of stakeholder with distinct interests and values across the two firms.

SYNERGY LIFECYCLES

While the typology we have presented so far offers a framework for understanding the *potential for synergies* from resources, activities, and relationships managed by distinct governance orientations and at distinct levels of analysis, it does not in and of itself offer any assessment of the *realization of those synergies*. We will argue in this section that the five-synergy typology raises important implications for the dynamics of value realization in M&A. We approach this issue by turning to the literature on post-merger integration. Just as we did for research on value or synergy in M&A, we conducted a systematic literature review of research on post-merger integration, which is fully available in Appendix 2.

Three critical insights emerged from that review. First, there is little mention of integration involving actors other than the parties directly involved in the deal (i.e., the acquirer and the target). Out of the 201 papers in our final sample, only five—mainly from the marketing

field—contemplate customers or suppliers in the integration process (Anderson, Havila, & Salmi, 2001; Briscoe & Tsai, 2011; Kato & Schoenberg, 2014; Öberg, 2014; Palmatier, Miao, & Fang, 2007), and none contemplate the other third-party actors (e.g., network partners, non-market stakeholders⁹) that our typology considers. Instead, the literature on post-merger integration focuses heavily on internal factors related to the fit between acquirers and targets, especially employee-, cultural-, and human resource-related issues.

Second, there is scant mention of the type of synergy being pursued by acquirers as a driver of and source of heterogeneity in post-merger integration processes or outcomes. As exceptions, Canina, Kim, & Ma (2010) theorize about how expected synergies should influence post-merger integration outcomes; Graebner (2004) insightfully discusses how the actions of target firm managers affect the realization of different kinds of expected and serendipitous value; and Rabier (2017) finds evidence that acquisitions motivated by operational synergies have the potential to experience greater gains than acquisitions motivated by financial synergies. But for the most part, studies of post-merger integration do not discuss how integration processes vary according to distinct types of value being pursued through the deal.

Third, the literature usually does not mention timing as it pertains either to the speed with which firms start to realize value from M&A transactions and especially to the duration of time over which the synergy gains persist. Indeed, only three of the papers we reviewed raise the issue of time at all, and all three do so in the context of how the speed or pace of the post-merger integration process itself affects the overall value creation from those deals (Maire & Collerette, 2011; Schweizer & Patzelt, 2012; Uzelac, Bauer, Matzler, & Waschak, 2016). Yet synergy gains are not permanent, and fade away after some period of time.

Thus, the literature appears to have left open two gaps that our typology of synergies has the potential to fill. First, research implicitly defines integration as the bringing together of activities or resources *within the boundaries of the combined firm* following the completion of an

⁹ An additional three papers within this body of research discuss “stakeholders” as opposed to shareholders (Bettinazzi & Zollo, 2017; Cording, Harrison, Hoskisson, & Jonsen, 2014; Azan & Sutter, 2010), but those papers refer to primary stakeholders (e.g., employees) rather than non-market stakeholders as we contemplate them.

M&A deal. But the variety of synergies in our typology suggests that assets *outside the boundaries combined firm* may also need to be integrated following acquisition completion. This suggests that there is likely to be heterogeneity in how long it will take companies to realize value from the different synergy types (c.f., Schweizer, 2005 regarding “hybrid post-acquisition integration approaches”). Second, research seems agnostic about the duration of time over which synergies persist. Yet the governance orientation dimension in our typology suggests that firms have varying degrees of control over the relationships, activities, and resources that generate different synergy types. We will argue that this creates heterogeneity in how long distinct kinds of synergies persist.

Overall, the literature review suggests that we should enrich our understanding of what happens between deal completion and the moment synergies disappear, which we label as the “synergy lifecycle.” Any lifecycle consists of a series of sequential stages from origin to demise that describe a process (Van de Ven & Poole, 1995). We consider two stages relevant to understanding when firms obtain synergies from M&A. The first, synergy realization, starts when the deal is completed and lasts until the acquirer begins to accrue benefits from the combination. We consider the completion date as the starting point because, although companies may begin integration planning as soon as they announce an M&A deal, they cannot legally implement those plans until deals are completed. The second stage, synergy duration, is the period during which the firm is accruing the benefits of the acquisition, which ends when the firm stops accruing benefits and investing in the relevant assets.¹⁰

Our interest lies in how the five synergy types differ in the mechanisms affecting the timing of those two stages (realization and duration), resulting in heterogeneous lifecycle shapes. We focus on two features of the underlying asset combinations that explain such heterogeneity. Consistent with the earlier discussion, we propose that (1) the *degree of integration* required to bring together the internal and/or external resources and activities involved in value creation

¹⁰ As with most organizational lifecycle models, we assume that eventually all assets cease to be valuable due to factors such as competition, technological change, or changing customer preferences.

influences the timing of initial synergy realization.¹¹ The greater the degree of integration required to bring together the key activities involved in value creation, the longer it will take firms to realize value from a synergy type (c.f., Meyer & Lieb-Dóczy, 2003). And (2) the *degree of control* over the combined post-merger resources and activities (directly related to the governance orientations in our typology) determines the duration of time over which synergy gains persist.¹² The greater the degree of control that the acquiring firm has over the activities and relationships involved in value creation, the longer the synergy gains persist. We now offer a more detailed exposition of these issues. Table 3 summarizes the main points.

[TABLE 3 HERE]

Internal Synergy Lifecycle

The literature on post-merger integration has written the most about deals involving internal synergies because combinations of assets like personnel or intellectual property often require a fusion of distinct systems, cultures, and organizational structures (Capron, 1999; Graebner & Eisenhardt, 2004; Puranam, Singh, & Chaudhuri, 2009). This moderate to high degree of integration required to bring together resources and capabilities suggests that there will be some lag in the initial realization timing of internal synergies. Sherman and Rupert (2006) show this nicely in a study of merged banks, finding that it took four years to realize productivity gains due the effort required to bring key personnel and processes together.

Because the governance orientation giving rise to internal synergies is based on fiat, the acquiring firm has a high degree of control over the underlying assets, and hence, the authority to

¹¹ Our concept of degree of integration required is similar to Puranam and Vanneste's (2016) degree of resource modification in the sense that both refer to the amount of change required to combine the acquirer and the target. However, their degree of modification refers to how internal resources and activities must change within the combined organization, whereas our degree of integration encompasses how resources and activities must change both inside *and outside* the combined organization. Also, existing research distinguishes integration from autonomy, defined as "the extent to which the acquirer delegates or defers to the expertise of target managers over decision making within target functional activities" (Graebner, 2004; Ranft & Lord, 2002; Zaheer, Castañer, & Souder, 2013). When we refer to degree of integration required, we are not referring to the autonomy given to the target firm—that is an orthogonal issue that prior work has already discussed in detail.

¹² More specifically, the acquiring firm has a higher degree of control over the key value-creating assets under fiat and market competition because there is no external third-party affecting its ability to manage the assets. By contrast, cooperative governance implies that the acquirer has a lower degree of control because third parties such as alliance partners or non-market stakeholders have direct input into the management of the shared assets.

make the necessary adjustments to maintain the sources of synergy without depending on another firm or entity. As a result, internal synergies have a reasonably long benefits period compared to some of the other synergy types because the management has full discretion to deploy assets according to its objectives, and the process can be managed internally. Of course, the overall duration of internal synergies depends on the firm's continued investment in the assets—they are not maintenance-free. Personnel needs to be compensated, retained, or replaced; physical assets need to be updated and maintained; and intellectual property must be protected. Contingent on that maintenance, internal synergies could persist for a long time. We will consider specific variables modifying the length of the realization and duration phases for internal synergies later.

Returning to the Cadbury Schweppes – Adams example, it took several years before Cadbury declared the deal to be a success, with the lag driven by challenges in cross-selling its own and Adams' products through each other's distribution channels and in translating the innovative capabilities of both companies into new products (Collis, Stuart, & Smith, 2008). The internal synergies from Cadbury-Adams were supplanted when Kraft acquired Cadbury, generating its own set of internal synergies by folding Cadbury into its portfolio of global confectionary products. This example illustrates that internal synergies require some integration to generate value, and that the duration of gains is shaped by the acquiring firm's ability to continue to exert control over those resources.

Market Power Synergy Lifecycle

Perhaps the most salient feature of market power synergies is that there is usually a low degree of integration required for the firm to be able to exert power in competitive interactions once the deal is completed. In the most extreme case of acquiring a rival purely to eliminate it from the market, the acquirer continues with its existing operations and simply shuts down the operations of the target. Of course, few cases are this cut and dry, but even if some integration is required, it is not as related to the underlying source of value as with other synergy types. Because the degree of required integration is low, the realization of market power synergies

happens comparatively quickly. Moreover, in equilibrium the acquiring firm has a high degree of control over the industry forces that generate market power synergies, leading to persistent monopoly-like rents—until other changes in the industry modify the competitive conditions. We will consider factors that vary the required integration and industry equilibrium impacting market power synergies later.

The BB&T-SunTrust merger discussed earlier, as well as banking mergers more generally, illustrates some of these attributes of market power lifecycles. Fee increases or branch closures do not require much integration and are relatively straightforward to implement. Banks thus quickly achieve pricing power. Moreover, the fact that most banks compete in regional/local markets rather than national ones geographically insulates them from competitive pressures, allowing the gains they achieve from enhanced market power to persist without much threat. For example, several other bank mergers were announced contemporaneously with BB&T-SunTrust, but all were based in regions other than the southeastern U.S. that did not threaten that merger.

Relational Synergy Lifecycle

The hallmark of achieving relational synergies is that, in addition to any internal changes, they require the development of trust and joint routines with an external third party. These synergies thus require at least a moderate, if not high, degree of integration. Internally, the acquiring firm is bringing in and combining personnel and other assets needed to manage the relationship with the external partner. Externally, the firm must develop a relationship with a new partner if the synergy arises from utilizing the acquired firm's supplier, buyer, or alliance partner. Or, if the acquirer's existing partner will begin interacting with the acquired organization, the acquirer must facilitate the new interactions. Or the acquisition could result in a relationship with a new third party, in which case both acquirer and target need to develop trust and interorganizational routines anew. This implies that the initial realization of value may take some time. Oberg (2014) offers an instructive case analysis of cross-border mergers involving firms with overlapping vs. non-overlapping customers pre-acquisition. She finds that post-acquisition integration challenges are common in both scenarios, that they arise from a mix of

internal and external coordination difficulties, and that they delay the realization of expected synergies.

Once achieved, relational synergies cannot be maintained without cooperation from another firm (e.g. supplier, buyer, or alliance partner). The assets that need to be recombined to produce synergy are owned by the focal firm and at least one other party, requiring a cooperative governance orientation, and hence resulting in a relatively lower degree of control when compared to internal and market power synergies. For instance, the value created by relational synergies will need to be split between the focal firm and its partner. Relational synergies have the potential to erode more quickly than internal or market power synergies for similar reasons. If a change in the market or in technology threatens to erode the value generated by a relational synergy, the focal firm cannot act unilaterally to invest in updating or maintaining the underlying assets. Rather, the maintenance process will require joint decision-making (Dyer & Singh, 1998).

The P&G-Gillette example illustrates some aspects of relational synergy lifecycles. In that case, the value of accessing and more effectively transacting with customers by enhancing trade and promotional terms was not even forecasted during the due diligence, and those benefits were not realized until well after the merger's completion. According to Bob McDonald, COO of P&G after the merger, "*Over time* it became apparent that Gillette was best in class at a lot of things that P&G wasn't good at" (Kanter & Bird, 2009). Further, these new modes of transacting with buyers implied that P&G's customers would capture at least some of the relational synergy gains. McDonald pointed to the possibility of P&G sales employees engaging in more "joint-planning with customers" (Kanter & Bird, 2009), showing the costs of managing external relationships and implying some division of rents.

Network Synergy Lifecycle

Recall that network synergies arise from the enhanced structural position occupied by the focal firm in the external network. The change in structural position is immediate. For instance, once an acquirer inherits the multiple contractual alliances of a target firm in a single transaction, it occupies a more central position than before. Unlike relational (or non-market) synergies,

which depend on developing strong relationships with individual partners, network synergies are mechanically driven by the structure of the portfolio of ties. Little to no integration of internal assets is required, and the dyadic interactions that existed pre-acquisition can continue as before. Hence the realization of the structural realignment that puts the firm in a superior position is immediate compared to the other synergy types.¹³

However, the very same considerations may lead network synergies to erode the fastest. A firm has much less control over the structure of an external network than it has over an internal asset or an individual relationship with a contractual partner. Because the structural position (*e.g.*, brokerage) of a firm often depends on second or even third order ties (*e.g.*, a partner's partner's partner!) over which it has no ownership and control, structural advantages tend to erode quickly (Burt, 2002; Salancik, 1995).

We used the example of QLT and Atrix earlier to offer the case of a real merger in which the acquirer signaled the intent to combine its R&D alliance portfolio with that of the target. Because the termination of alliances is not consistently announced publicly, it is not possible to directly observe what happened to QLT's post-acquisition network position. However, it is not hard to see that QLT can only control the contractual alliances it directly inherited from Atrix. For instance, QLT cannot directly affect whether these new partners establish alliances with one another, which would affect QLT's ability to be the exclusive "hub" in its ego network by spanning many structural holes (Burt, 1992). Even harder to control is whether its second-order partners (those tied to its current partners) are highly prominent firms, which affects the status of QLT in the network (Sauder, Lynn, & Podolny, 2012). While only speculative, these examples illustrate some of the key issues: the low degree of control over the sources of structural advantage, and thus the expected short duration of network synergies.

¹³ One could argue that an acquisition could even trigger the loss of a target's partners because they do not want to or cannot (for legal reasons) collaborate with the acquirer. This may be the case, but these issues would need to be resolved during the pre-merger due diligence period (*e.g.*, renegotiating alliance agreements or getting commitments that prior alliances will continue post-merger) because they affect the decision to merge and the valuation of the deal itself. Hence, they are not as germane to the post-merger integration period. See Hernandez and Shaver (2018) for further discussion.

Non-Market Synergy Lifecycle

We expect that synergies based on gaining legitimacy with non-market stakeholders have the longest gestation period. Like with relational synergies, there are both internal and external issues to iron out during the post-merger phase. Internally, two firms must pool their relations with different stakeholders (*e.g.*, governments in different jurisdictions, or NGOs and labor organizations) or their expertise with distinct social issues (*e.g.*, the environment and diversity). And individuals and teams must not only learn to work together, but they must also recombine their distinct approaches, processes, and systems of “corporate diplomacy” (Henisz, 2017).

But in addition to the usual challenges of internal integration, there is a non-trivial process of external integration centered on the building of trust and reputation with stakeholders. Acquisitions “can represent a major upheaval for stakeholders [of] the firms involved” (Bosse et al., 2018:13). Non-market stakeholders tend to be highly wary in their interactions with business firms because they do not operate in the business sector, and often make claims on firms that challenge the firm’s profit-seeking activities (*e.g.* an environmental NGO pushing for more sustainable but expensive raw materials) (Freeman, 1984; King & Soule, 2007). Even if one of the merging firms had a pre-merger relationship with the relevant stakeholder, the combined entity needs to go through a period of proving itself worthy once again. Unlike with relational synergies, where the combined entity also needs to develop trust with an external party, the goals of the relationship are not clearly defined at the outset. There is no contract to specify objectives, to govern the interaction, or to facilitate the development of relational routines. This leads to an elongated phase of diplomatic activity that delays obtaining the support and collaboration of non-market stakeholders. For instance, one of the major oil and gas companies that acquired the rights from another company to drill in the Vaca Muerta basin of Argentina discussed with us how it took a few years to develop a trusting relationship with an indigenous tribe that had long resided in the land over the wells. The acquirer had to start anew with the indigenous tribe, despite the pre-existing relationship of the target from whom they acquired the drilling rights.

Once obtained, however, the support of stakeholders can produce significant economic benefits (Deng, Kang, & Low, 2013; Henisz et al., 2014). The status and reputation of a firm in the eyes of powerful stakeholders has self-enhancing qualities because of the endorsement-like nature of stakeholder approval. If a powerful stakeholder supports a firm, other stakeholders take it as a cue of the quality of the firm within the relevant issue domain, which further bolsters the legitimacy of the firm (Dorobantu, Henisz, & Narthey, 2017). This process is akin to the preferential attachment benefits obtained by highly central firms in networks (Bothner, Podolny, & Smith, 2011; Newman, 2001), whereby firms with an initial advantage in forming ties subsequently accrue a disproportionate share of additional ties. Similarly, we can think of stakeholder approval as enhancing the ‘centrality’ of the firm in a network of endorsements. In the case of the oil firm in Vaca Muerta, after the native tribe began to trust the acquirer, the tribe itself endorsed the company to an NGO concerned about the environmental impact of the drilling project. Nevertheless, because an acquirer never has full control over its external stakeholders, the duration of non-market synergies is likely to be comparatively shorter than for internal and market power synergies. We will consider later how certain attributes of stakeholders affect the realization and duration of this type of synergy.

Returning to the case of Unilever acquiring Ben & Jerry’s, the stakeholders of both firms were initially wary of the combination. On Ben & Jerry’s side, its founders, employees, and especially customers and social-mission partners (*e.g.*, NGOs, sustainable farms) were skeptical about Unilever’s intentions and doubted Ben and Jerry’s ability to preserve its socially responsible practices (Austin & Quinn, 2005). Ben Cohen, founder of Ben & Jerry’s, expressed that “we expect it to be a long and winding road” to infuse socially-responsible values into Unilever (Bourgeois III et al., 2003). On Unilever’s side, shareholders were concerned that profits would be harmed by going too far down the CSR road and employees were skeptical that their corporate culture would mesh with the ‘hippies’ in Vermont. Yves Couette, who would eventually become CEO of Unilever, reported that “my first reaction was: ‘They are out of their mind,’” when news of the acquisition broke (Bourgeois III et al., 2003). This illustrates the usual

difficulties of integrating the two firms, but even more importantly, the elongated process of gaining the trust of skeptical stakeholders—particularly non-market actors that cannot be governed by fiat or market competition. Eventually, Unilever successfully pulled off the combination and leveraged Ben & Jerry’s practices and reputation to build a worldwide organization renowned for its CSR practices, which has paid important dividends in reputational capital. While not all of Unilever’s CSR capabilities can be pinned directly to the purchase of Ben & Jerry’s, that deal did play an important role.

Comparisons across Synergy Lifecycles. The foregoing discussion (summarized in Table 3) raises several comparative differences in the initial realization timing and the duration of the five synergy types. Specifically, the fact that internal, relational, and non-market synergies may require more integration than market power and network synergies implies that the latter two will enjoy an earlier realization timing than the former three. Our earlier point about the mistrust of non-market stakeholders in a merged firm also implies that the timing of initial realization is likely to be longest for non-market synergies. In between the extremes, relational synergies should take longer to realize than internal ones due to the mix of internal and external integration to generate relational value. Turning to the duration of synergy gains, sources of value over which the firm has more control (internal and market power) should last longer than those over which control is shared with a third party (relational, network, and non-market). The fact that an acquiring firm has the least control over direct and indirect network partners suggests network synergies will erode the most quickly of the five synergy types. We formalize these points in the following propositions, and illustrate them in Figure 4.

[FIGURE 4 HERE]

Proposition 1. Timing of initial realization: *The realization of synergies will tend to happen faster for market power and network synergies than for internal, relational, and non-market synergies. Internal synergies will tend to be realized sooner than relational synergies. The initial realization of non-market synergies will tend to take the longest.*

Proposition 2. Duration of synergy gains: *The duration of synergy gains will*

tend to be longer for internal and market power synergies than for relational, network, and non-market synergies. Network synergies will tend to have the shortest duration.

Comparisons within Synergy Lifecycles

We have proposed “average” expected shapes for each of the five synergy lifecycles to explain distinctions between them. But “averages” conceal many factors that could modify the realization timing and duration of each individual lifecycle. In this section, we articulate some of those factors, drawing from the prior literatures most relevant to each of the synergy types. None of the variables we propose are inherently novel, but their application to synergy lifecycles in M&A is. For each synergy lifecycle, we offer one proposition for realization timing and one for duration, seeking to illustrate plausible relationships rather than to comprehensively lay out all possible factors that create variance in synergy lifecycles.

Consistent with the notion that the degree of integration required shapes initial realization, we posit that *alignment* between the pre-acquisition assets or activities of the acquirer and target is the overarching concept affecting how quickly or slowly synergy gains are initially realized, with distinct variables impacting alignment across each of the synergy types.¹⁴

Consistent with the notion that the degree of control shapes the duration of synergy gains, we posit that the post-acquisition *stability* of the underlying interactions that give rise to value is the overarching concept that will modify the duration of synergy gains, again manifested differently across the synergy types. Table 3 summarizes the relevant variables, and Figures 5a-5e depict how those variables modify the lifecycle shapes of the five synergies.

[FIGURES 5a, 5b, 5c, 5d, AND 5e HERE]

Internal synergy. As Appendix 2 makes clear, pre-merger organizational and strategic fit between the acquirer and target is one of the most important predictors of how quickly

¹⁴ Our concept of alignment relates to a key concept in Puranam and Vanneste’s framework: the degree of resource similarity. They use the idea of similarity in reference to the internal resources and activities of the acquirer and target. We broaden this idea by thinking about the alignment or misalignment of both the internal *and* external resources, relationships, and activities that drive all five of our synergy types, such that Puranam and Vanneste’s concept of similarity can be thought of as a subset of our concept of alignment.

synergies may be realized, and probably the most oft-discussed alignment factor in extant research (e.g. Bauer & Matzler, 2014). When the acquirer and target are more compatible and similar to one another in terms of their resources, capabilities, and organization, internal synergies should be realized more quickly (Haspeslagh & Jemison, 1991):

Proposition 3: The greater the organizational and strategic fit between the acquirer and the target, the more quickly internal synergies will be realized.

In terms of stability, we expect the integration management capability of the acquirer to influence the duration of time over which internal synergies persist. Integration management consists of the ability and motivation of the acquirer to invest in and recombine the two firms' assets (e.g. Birkinshaw, Bresman, & Hakanson, 2000; Marks & Mirvis, 2001), and is distinct from organizational or strategic fit (e.g., Bauer & Matzler, 2014; Larsson & Finkelstein, 1999). Under competent integration management, internal synergies have a reasonably long duration, in part because the firm is "doing it right" but also because it has ownership and control of the underlying assets. The acquirer has authority (fiat) to make the necessary adjustments to maintain the sources of synergy (within the usual organizational and competitive constraints) without depending on another firm or entity. Weak integration management capabilities, which may arise out of inexperience or lack of qualified personnel, shortens the duration of value capture.

Proposition 4: The stronger the acquirer's integration management capabilities, the longer the duration of internal synergies.

Market power synergy. As mentioned earlier, the realization of market power synergies happens quickly relative to other types. However, one alignment-related factor that could modify the timing of initial realization for these kinds of synergies is whether the merger is vertical or horizontal. In horizontal mergers, profits should be realized quickly because no to little integration is required to achieve competitive influence—the elimination or consolidation of a competitor is sufficient to for a stronger market position (Porter, 1980). In vertical mergers, more

integration may be needed because the combining firms operate in different sections of the value chain, making it less likely than in the case of horizontal mergers that the activity systems of the firms will be aligned and ready to yield rents at the outset (Bain, 1951).

Proposition 5: Market power synergies will be realized more quickly for horizontal than for vertical acquisitions.

The most commonly discussed factor influencing the stability of competitive equilibrium in industries is the intensity of rivalry among competitors (Porter, 1980). The more firms jockey for position post-acquisition, the more quickly the rents of market power synergies begin to erode. For instance, if a rival of the combined entity engages in another acquisition or launches an intensive price war, the market power benefits of the post-merger firm will dissipate faster.

Proposition 6: The weaker the intensity of rivalry among the competitors in an industry, the longer the duration of market power synergies.

Relational synergy. While several factors affect the alignment between interfirm partners, trust is perhaps the most often cited. Interorganizational trust is “the extent of trust placed in the partner organization by members of a focal organization” and is distinct from interpersonal trust (Zaheer et al., 1998:142). We refer to the trust that a third-party firm or organization (e.g. alliance partner) has in the either or both of the two merging firms, and vice versa. The higher the trust between the pre-merger firms and the third party, the more quickly relational synergies that derive from their relationship will begin to emerge. This likely occurs because the willingness to cooperate, to engage in mutual accommodation, and to re-work relational agreements increases with trust and makes the integration phase smoother—consistent with research showing that interorganizational trust improves the performance of alliances (Gulati & Nickerson, 2008; Zaheer et al., 1998). Extending this idea to M&A, we expect:

Proposition 7: The greater the degree of trust between the firms involved in the acquisition (acquirer and target) and their individual partners pre-acquisition, the more quickly relational synergies will be realized.

The stability of interorganizational relationships is a function of the partner-specific routines (Dyer & Singh, 1998) that develop post-merger. These routines refer to processes, norms, and activities that are shared and tacitly understood by the merged entity with individual third parties affected by the deal. Partner-specific routines stabilize relationships in the same way that individual habits offer predictability and continuity to behavior (Zollo, Reuer, & Singh, 2002). These routines are distinct from pre-acquisition trust in our context because they arise as a consequence of the integration process, resulting in a set of organizational and behavioral interorganizational patterns adjusted to the new reality of the merger. This leads to the following:

Proposition 8: The stronger the partner-specific routines that emerge post-acquisition, the longer the duration of relational synergies.

Network synergy. We argued that network synergies are both realized and eroded the fastest compare to other synergy types. Variance in the speed of realization may arise, however, as a function of the overlap in the network partners of the combining firms (the network analogue of alignment). As shown in Figure 3, network synergies can arise from either the addition of new partnerships or the elimination of redundant ones. We expect that the latter case leads to a quicker realization of benefits because all that is necessary is a legal reassignment of the contractual ties to the combined entity, without much modification of the pre-existing activities or purposes of those ties. In contrast, value from a synergistic addition of two networks may require a period of adjustment and the initiation of new interactions across the network to extract the benefits of a larger and more diverse set of external resources. To be clear, the value still arises from the structural position, which is achieved upon merger completion. The only difference is that the activation of benefits from the position is faster for subtractive than additive network synergies (Hernandez & Shaver, 2019).

Proposition 9: The greater the degree of overlap between the pre-acquisition network partners of the acquirer and target, the more quickly network synergies will be realized.

The duration of network synergies depends on the stability of the structural position resulting from the merger. That stability, in turn, depends strongly on the actions of other firms (nodes) in the network. As other firms engage in actions that change the composition of their networks—such as forming or ending alliances, making acquisitions or divestitures, entering or exiting industries—externalities that modify the position of the focal firm will inevitably occur (Hernandez & Menon, 2019). Those actions need not be intentionally directed at helping or harming the focal firm’s position. For example, suppose a firm obtains two new alliance partners through an acquisition. These two partners could soon after form a direct alliance between themselves, which changes the structural position the focal firm used to occupy. Or after a focal firm’s own acquisition, another firm may engage in an acquisition that dramatically modifies the structural position of the initial acquirer. The prevalence of these activities will affect the rate of churn in both the ties and the nodes involved in the network (Sasovova, Mehra, Borgatti, & Schippers, 2010). The greater the churn in the network overall, the less stable will be any individual (ego) network position. Applied to a post-merger scenario, we expect that:

Proposition 10: The lower the rate of churn in the broader network after a merger, the longer the duration of network synergies.

Non-market synergy. The core challenge of stakeholder management is balancing competing stakeholder claims on the firm (Freeman, 1984)—an issue of alignment. The merger of two firms can significantly modify the balance of claims and expectations on the firm by its stakeholders. We expect that the speed of initial realization of non-market synergies will be affected by the extent to which the non-market stakeholders of the acquirer and target have aligned vs. competing interests. Disagreement among the stakeholders of merged firms can delay the realization of value from consolidating stakeholder relations, especially because non-market stakeholders tend to distrust for-profit firms (King & Soule, 2007). Thus,

Proposition 11: The greater the alignment of the interests of the acquirer’s and the target’s non-market stakeholders pre-acquisition, the more quickly non-market synergies will be realized.

Once the claims of stakeholders on the combined firms have been aligned, the duration of non-market synergies should depend partly on the contentiousness of the issues about which stakeholders care (Dorobantu et al., 2017; King & Soule, 2007). For example, within the field of environmental issues, stakeholders vary in the extent to which they agree on issues (e.g. how harmful are GMOs?) as well as the approaches and tactics they use to pursue their objectives (e.g. Greenpeace’s aggressive attacks on firms vs. other, more accommodating NGOs) (Odziemkowska, 2019). The combination of these factors makes some issue fields more fragmented, and thus more contentious, than others. Contentious fields lead to a more unstable non-market environment for firms than those in which there is more unity and cohesion among non-market actors. In the latter scenario, the rents from non-market synergies can persist longer because the coalition between the merged firm and its new stakeholder environment is more enduring. Thus,

Proposition 12: The less contentious the non-market stakeholder environment of the combined entity post-merger, the longer the duration of non-market synergies.

CO-SYNERGIES AND DIS-SYNERGIES

In a world in which acquisitions give rise to multiple types of synergies exhibiting heterogeneous lifecycles, the total value created by a deal depends not only on the sum (and timing) of value created by each separate synergy type, but also on an additional consideration: the extent to which each synergy type enhances or undermines the value created by the other types. These interactions among types could be positive, with two (or more) synergies reinforcing one another; or they could be negative, with the value from one type eroding the value of one or more other types. We label potentially-reinforcing spillover effects as “co-synergies,” and potentially-offsetting spillover effects as “dis-synergies.”

Table 4 summarizes the main factors leading to co-synergies and dis-synergies for each of the five types, while Tables 5-6 offer several scenarios illustrating how pairs of synergies may interact. We summarize these points in the remainder of this section, but refer the reader to the

tables for more exhaustive detail. We also note that, because there is no prior literature to offer guidance on the reinforcing or undermining effects across synergy types, our ideas in this section are more speculative than in other parts of the paper (where we were able to build on systematic reviews of the literatures on value and integration in M&A). We thus do not formalize our ideas here into propositions. However, this section is important as a first step towards building a more comprehensive notion of the total value created by M&A.

[TABLES 4, 5, AND 6 HERE]

How Internal Synergies Interact with Other Types

The primary manner in which internal synergies create co-synergies with the other four categories is by improving internal resources and capabilities that enhance the development or management of external relationships (whether competitive or cooperative). For example, synergies resulting from the combination of the acquirer and target's technological capabilities could enhance market power by making the acquirer's pre-existing distributors more dependent on it, which allows the acquirer to charge higher prices. Indeed, Grimpe and Hussinger (2014) demonstrate that the benefits of acquiring a target with a portfolio of technologically related patents are strongest when the combination of acquirer and target patents provides "preemptive power" to block rivals from entering similar technological areas. Further, the same internal improvement in technological capabilities from an acquisition may make the firm more attractive to the alliance partners inherited from the target, who are more likely to maintain their alliances with the acquirer post-acquisition and lengthen the duration of both relational and network sources of value created by the deal.

One executive told us that "sometimes buying forces you to borrow," meaning that for an acquisition (buy) to fully realize its potential, the firm may need to complement it with assets obtained through partnerships with other parties (borrow). As a recent example, in early 2019 Johnson & Johnson (J&J) acquired the robotic-surgery firm Auris, whose capabilities would complement J&J's expertise in lung-cancer diagnosis and treatment. In addition to the clear potential for internal synergy, the Auris deal affected the value of the partnership formed

between J&J and Alphabet in 2015, who jointly created Verb Surgical—which also specialized in robotic surgery. As Koons (2019) reports: ““What we’re trying to really garner is to convene this community of world class robotics expertise,” Ashley McEvoy, chairman of J&J’s medical-devices unit, said.” Any synergies from robotics would arise from a combination of internal and relational (and potentially network) factors given that Verb was an external asset governed through a cooperative arrangement with Alphabet.

By the same token, the main way in which internal synergies create dis-synergies with other types is by creating situations in which newly-generated resources and capabilities are poorly suited to the post-acquisition external (cooperative or competitive) environment created by the deal. For example, a firm may create internal synergies by combining its intellectual property portfolio with that of the target, only to find that the stronger intangible assets it possesses encroach upon the IP of one or more of its key suppliers, destroying relational rents. Similarly, newly-generated internal assets might be poorly suited to managing competitive relationships (undermining market power synergies), not legitimated by stakeholders, or ill-suited to taking advantage of the firm’s newfound network position.

Returning to the Cadbury-Adams deal, the internal synergies arising from combining production and distribution of chocolate (Cadbury) and gum (Adams) also allowed the combined firm to better manage relationships with global distributors, extracting more value and generating relational co-synergies. More speculatively, a potential dis-synergy from being a larger producer of chocolate, candy, and other unhealthy foods could arise from being targeted by public health advocates concerned with growing obesity rates. The core of the problem would be the mismatch between stronger internal capabilities in confectionary and a shift in the institutional environment making the combined firm’s products less legitimate.

How Market Power Synergies Interact with Other Types

The primary manner in which market power gains from acquisitions can produce co-synergies with other sources of value is by allowing the acquirer to dedicate more resources to inward-facing resources and outward-facing cooperative relationships, because the acquirer is

now more insulated from competition (Kang, 2018). For instance, an acquirer facing less competition in its home market after a consolidating acquisition might be better able to hone in on developing new products with the target, or dedicate more resources to cooperative relationships with individual partners, to the management of its network, or to strengthen ties with non-market stakeholders.

But market power synergies could also lead to dis-synergies with the remaining four types by reducing incentives to make the kinds of investments just mentioned. Fulghieri and Sevilir (2011) develop an intriguing formal model showing that horizontal mergers—which reduce product market competition—make employees of the combined firm less productive by reducing their incentives to innovate compared to standalone firms. We expect that, when innovation and productivity involve external partners, market power synergies can reduce incentives to cooperate with and learn from buyers, suppliers, alliance partners, network partners, and non-market stakeholders. And external partners may also have fewer reasons to collaborate with the acquirer due to reduced trust or legitimacy arising from suspicions about the motives of a significantly more powerful post-acquisition firm. These considerations were reinforced to us during a recent discussion with an executive of a major pharmaceutical company that had long enjoyed a quasi-monopoly position in certain cancer drug areas. Because of its dominant position, the firm underinvested in developing trust and relational routines with insurance companies (buyers). The firm has only recently realized that it may be giving up long-term value by not getting along with buyers, and has begun to invest resources (people and teams) to develop deeper interactions with insurance companies.

The BB&T-SunTrust example illustrates another most common dis-synergy arising from market power gains: relationships with non-market stakeholders are harmed by the firm's increased influence over prices. Reactions are often quite negative when banks announce mergers, as exemplified by the following quote from the National Black Farmers Association (NBFA): “[The proposed deal] will increase concentration in specific markets in the Southeastern United States—especially in communities in Virginia, Georgia, and Florida. [We]

worry that in rural and economically disadvantaged areas the merger will have disproportionate effects, such as shuttered branch offices and reduction in staff that oversee compliance with the Community Reinvestment Act” (Walsh, 2019). Such a loss of legitimacy could be outweighed by the gains from market power. But this example underscores the need to account for how market power rents interact with other potential sources of value—positively or negatively.

How Relational Synergies Interact with Other Types

Relational synergies are likely to yield co-synergies with other types by allowing the acquirer to improve relationships with other counterparties that give rise to market power, network, or non-market synergies; and by facilitating the development of internal assets giving rise to internal synergies. For example, relational gains from mergers might generate internal value by providing access to resources that allow the acquirer and target to more effectively and profitably combine internal assets (e.g. access to the rights to a technology patented by an alliance partner that solidifies the joint value of the acquirer and target’s technologies).

Relational synergies can enhance market power synergies when the stronger relationships with external parties lessen any backlash the acquirer might experience from its improved competitive position. Finally, stronger individual relations with third parties can generate network and non-market co-synergies by signaling to other partners that the acquirer is a valuable counterparty.

At the same time, relational synergies could create dis-synergies with the remaining four types by forcing the acquirer to constrain its behavior to preserve the trust of valuable dyadic partners. For example, to show its relational partners that it will behave cooperatively, an acquirer might need to hold back from internally developing a new product with an acquired target, imposing internal dis-synergies. Or to enhance trust with its external partners, an acquirer might need to refrain from exercising as much market power as the acquisition permits. Similarly, network partners or non-market stakeholders might feel threatened by stronger relationships that an acquirer might have with suppliers or alliance partners, resulting in network or non-market dis-synergies.

We already offered an example of relational co-synergies in the case of the P&G – Gillette combination. The improvement in the value generated with individual customers (retailers and distributors) generated internal co-synergies by strengthening the combined entity's customer-management capabilities. It also magnified the greater power the deal gave P&G over its buyers (a market power co-synergy) because better relations with those buyers made P&G's greater influence more palatable. Years later, however, P&G's ability to lock in relationships with distributors became a sore point in the eyes of the public and may have paved the way for the public and the media to instantly support the direct-to-consumer business models of rivals like Harry's and Dollar Shave Club, illustrating a potential non-market dis-synergy.

How Network Synergies Interact with Other Types

Improvements in an acquirer's structural network position can help firms better manage or control resources or relationships that give rise to the other four synergy types. For example, an acquirer that obtains a more central position in its alliance network can leverage that position to channel more resources (*e.g.*, new production processes) that enhance the integration of manufacturing resources with the target, resulting in internal co-synergies. Similarly, a firm that gains structural holes from the target's network can leverage its enhanced brokerage position to bolster market power synergies gained from more control over buyers or suppliers. Or a firm that increases its network status (centrality) as a result of an acquisition can simultaneously curry legitimacy from powerful stakeholders due to its newfound visibility in the industry network.

However, the new structural position occupied by the firm, and the role implied by that position (*e.g.*, broker, connector), can constrain behaviors that would generate other synergies. For instance, to continue with the example from the prior paragraph, stakeholders may be opposed to the increased control a firm obtains by enhancing its brokerage position in the production network. Another consideration pertaining to networks is that the complexity of managing a much larger web of ties post-acquisition may take attention and resources away from developing assets that yield internal synergies. Comanor and Scherer (2013) provide an intriguing additional example, suggesting that mergers have undermined the internal innovation

productivity of life sciences firms by reducing opportunities to pursue “parallel paths” of discovery through external sourcing of ideas. In their treatment, the greater external exclusivity that acquirers gain in the network of cooperative innovation enhances short run profits, but hurts internal discovery capabilities in the long run.

To revisit the QLT-Atrix example, recall that QLT inherited Atrix’s R&D alliances to generate a larger network composed on prominent, large pharmaceutical companies. One of the foreseeable co-synergies arising from this improved network is that QLT could develop stronger general alliance management capabilities, resulting in an internal synergy as a by-product of the network synergy. At the same time, however, the attention to the more complex new network commits QLT to managing that network and can take away from developing other internal technological strengths, resulting in a potential decline in internal value generation.

How Non-Market Synergies Interact with Other Types

Non-market synergies can generate co-synergies when the support of key non-market stakeholders legitimizes the acquirer’s internal activities or its external market-based interactions. For example, certain non-market stakeholders may find it in their interest to support a firm that has gained increased market power over suppliers that the stakeholders want to undermine (*e.g.*, because those suppliers have weak track records on environmental issues). Similarly, a stakeholder may support a combined firm’s strengthened ties with a particular distributor that the stakeholder supports, generating a relational co-synergy.

The case of Unilever acquiring Ben & Jerry’s illustrates some co-synergies involving non-market stakeholders. Perhaps most salient is that the process of integrating with Ben & Jerry’s and being infused with social values was important in developing Unilever’s CSR culture and capabilities, an internal synergy that became the foundation for Unilever’s future leadership in that area. Additionally, Unilever changed some of its practices for managing relationships with suppliers thanks to Ben & Jerry’s social sensibilities, generating mutual gains with those suppliers. For example, Unilever prioritized “socially aligned suppliers, including the purchase

of rBGH-free milk and cream from the St. Albans, VT Cooperative [and by introducing] Fair Trade Certified coffee into all of Ben & Jerry's coffee-based flavors" (Austin & Quinn, 2005).

But maintaining legitimacy and staying in the good graces of some non-market stakeholders can force the acquirer to constrain behavior that could generate other synergies. For example, a firm may refrain from extracting all the benefits of gaining greater control over a network of alliance partners to avoid being labeled as opportunistic by industry watchdogs. Or a firm may not exercise all the market power it could because it wants to avoid being attacked by consumer advocates or the media. Recently, for example, the AIDS Healthcare Foundation (AHF) publicly expressed opposition to the CVS-Aetna merger: "'Shareholders may win, but patients and customers—and we as a society—will ultimately lose with consolidation running rampant in the healthcare industry today, as epitomized by this CVS-Aetna merger — a merger which we strenuously oppose,' said Michael Weinstein, President of AHF.'" AHF publicly expressed concerns that the merger would result in patients receiving insufficient care and in breaches in the confidentiality of patients' HIV status, "reflect[ing] an overall insensitivity to the special needs of people with HIV and the stigma they still face today" (BusinessWire, 2018).

APPLYING OUR FRAMEWORK: THE CASE OF AIRLINE MERGERS

We believe it is useful to bring the full value of our ideas to life by presenting a comprehensive case study. Among the five interviews we conducted with M&A practitioners, one executive (Oliver Engert, Senior Partner and head of the Merger Management practice at McKinsey & Company) suggested that the U.S. airline mergers since 2008 (United Airlines and Continental Airlines, Delta Air Lines and Northwest Airlines, and American Airlines and US Airways) illustrate our ideas well. We will describe the five synergy types, their lifecycles, and some of the co- and dis-synergies that arose in those mergers.

Airline mergers generated gains from each of the five synergy types. In terms of *internal synergies*, a major part of the logic of these transactions was to increase the utilization of airplanes. By consolidating passengers on overlapping routes, merging airlines optimized the utilization of airplanes by filling more seats per flight, and enhanced the overall efficiency of the

route network by redeploying airplanes freed up by the consolidations to fly on other routes. Additional internal synergies resulted from combinations of IT systems, marketing budgets, and personnel (e.g. pilots and flight attendants). For example, “Delta’s chief information officer, Theresa Wise, said the airline had to merge 1,199 computer systems down to about 600, including one—a component within the airline’s reservation system—dating from 1966. The challenge, she said, was to switch the systems progressively so that passengers would not notice. Ms. Wise, who has a doctorate in applied mathematics, devised a low-tech solution: she set up a timeline of the steps that had to be performed by pinning colored Post-it notes on the wall of a conference room” (Mouawad, 2011).

One of the clearest consequences of these airline mergers was an enhancement in *market power synergies*. Airlines reduced competition by merging with their rivals, yielding greater exclusivity and thus pricing power on certain routes. As an example, Delta-Northwest came under fire a year after their merger for exerting pricing power: critics cited a 5% increase in revenues (and a 31% increase in profits) accompanied by only a 2% increase in load factor as evidence that the airline boosted its revenues by raising prices rather than by flying more airplanes (Sanati, 2013). This also reflects co-synergies between internal and market power considerations, in that the same factor (optimization of the route network) promoted greater internal efficiency and external pricing power. Other market power synergies resulted from the combined airlines gaining greater bargaining power vis-à-vis their suppliers of key inputs like fuel, physical plant, and catering, among others.

Airlines have numerous cooperative ties with complementors such as credit card companies, hotel chains, car rental agencies, and travel services providers. Airline mergers generated *relational synergies* by improving the profitability of at least some of these dyadic relationships. For example, when American Airlines (AA) and US Airways merged, they considered whether to offer credit cards through Citi (which previously offered the AA card) or Barclays (which previously offered the US Airways card). The stakes were high: American alone had roughly 69 million members in its frequent-flier program, so whichever credit card company

was chosen would gain the ability to market to a massive pool of customers. “‘It is a delicious tidbit for a bank to grab,’ said Jay Sorensen, president of IdeaWorks Co., a Wisconsin-based airline consulting firm. ‘The ability to have a relationship with the world’s largest airline is a once-in-a-lifetime opportunity’” (Mecia, 2013). Ties with credit card companies are also for the airlines as a means of locking in clients, a non-zero-sum benefit typical of relational synergies. In the end, American Airlines maintained partnerships with both Citi and Barclays, underscoring the desire to preserve trust and relational routines that the airlines had developed over time with their separate credit card partners.

Airlines belong to networks due to the constellation alliances that have become standard in the industry (Star Alliance, OneWorld Alliance, and SkyTeam). Constellation alliances allow members to link to the routes of other airlines that fly to destinations to which a focal airline doesn’t, and by providing amenities to frequent travelers such as transfers within airports, airport lounges, improved customer analytics and service, and greater opportunities to earn and use airline miles. Becoming more central in these alliances through a merger can generate *network synergies*. For example, United Airlines and Lufthansa were both members of Star Alliance, meaning that United passengers could fly to major hubs in Germany and then connect to and enjoy amenities within Lufthansa’s route network. By merging with United, Continental’s destinations and amenities became part of United. This improved United’s structural position within the Star Alliance network, in that United was a larger, more central, more connected, and more prominent partner to which the other airlines could connect.¹⁵

Another source of network synergies came from the combination of the two-firms’ pre-existing networks of third-party service providers (credit cards, hotels, car rentals, and other services). For example, by enlarging the network of partners with which the airline’s customers could make hotel and car rental bookings and earn miles, American was placed in a more central position in this network than either of the pre-merger airlines had been, allowing American to

¹⁵ Note that we are not talking here about the improved network of routes (which can potentially enhance both internal and market power synergies). Rather, we are speaking of the improved structural position of an airline in the network defined by its cooperative contractual ties with other airlines and service providers.

gain greater status in the eyes of third-party providers. In other cases, value arose from consolidating the network to reduce redundant ties and make the firm a more exclusive broker between different kinds of providers. For example, both American Airlines and US Airways had separate partnerships with Marriott before the merger, which were consolidated into a single partnership after the completion of the deal and allowed the new American to be a more exclusive broker between Marriott and other service providers (e.g. car rental agencies, vacation booking sites). This kind of structural value arising from improvements in the network comes in addition to any gains from making individual partnership more jointly beneficial (which would fall under relational synergies).

Airline mergers also influenced *non-market synergies*. Airlines interact with many non-market groups: the media, environmental groups, communities, governments, labor unions, and travelers' coalitions, to name a few. The approval or censure of one of these stakeholders in a merger could have a significant impact on the standing of an airline in the eyes of that particular group but also in the eyes of other groups. For example, a major reason that the merger between AA and US Airways ultimately happened was that the management of US Airways worked very hard to attain the buy-in of key American constituents: "US Airways lobbied the creditors [of American Airlines, which was in bankruptcy at the time], and began a media outreach, including meeting with newspaper editorial boards. In July, [US Airways CEO Doug] Parker spoke at the National Press Club, joined by American's unions. The airline met with elected officials, civic and business leaders in Washington, Philadelphia, and Charlotte, where US Airways has hubs, and Miami and Dallas, which are American hubs" (Lloyd, 2013). As a result, these constituents advocated in favor of the merger, allowing it to proceed more seamlessly than typical airline mergers (Fubini, Garvin, & Knoop, 2017). The crucial point is that the combination of the two firms' key constituents had to be aligned for the deal to go forward and create value. As an example of an unfavorable stakeholder reaction, the earlier quote about Delta increasing prices without attendant operational improvements illustrates how non-market stakeholders, like the media and consumer advocates, might react negatively to airline mergers. That example also

illustrates a dis-synergy between the market power benefits of raising prices versus the non-market costs of losing legitimacy in the eyes of key stakeholders.

These airline mergers can also usefully illustrate the lifecycles of the five synergies. We emphasize the timing of initial realization and the duration of synergy benefits.

Consistent with the earlier discussion, it took some time for the airlines to initially realize internal synergies. For example, United Airlines worked for over five years to fully integrate its reservations system, infamously grounding its entire global fleet in 2015 when the whole system went down. However, once the integration needed to achieve internal synergies was complete, airlines continued to enjoy these benefits while making the appropriate investments in the technology, people, and other resources needed to maintain these gains. Indeed, airlines in the U.S. have been able to achieve historically high profits since the three major mergers, in part due to the cost savings from internal synergies.

In terms of market power synergies, the airlines were clearly able to raise prices quite easily and quickly—with little to no integration required following the legal approval of their combinations. This led to a rapid increase in profitability (as bemoaned by the media and consumer advocates, which we mentioned earlier). Absent other structural changes among the remaining players in the industry, it is quite likely that Delta and Northwest, for example, would have been able to sustain their increased level of revenues and profitability for a long time. The fact that United-Continental and American-US Airways mergers happened in quick succession also illustrates that market power synergies can be altered when industry forces change. But in the U.S., however, after those three deals the structure of the industry changed permanently in favor of the three major airlines and does not appear to be threatened for the time being.

The negotiations and decision-making that American went through in choosing Citi as its credit card partner were lengthy (Mecia, 2013), evidencing that initial realization timing for relational synergies may be elongated as companies integrate external relationships while reconfiguring internal personnel and processes to run those partnerships. However, the contracts that airlines sign with their credit card partners are long-lasting, and in steady state, the airlines

rarely change credit card partners (Mecia, 2013), illustrating how trust and relational assets may be built over time and support contractual relationships. For example, the five-year \$1 billion contract that American signed with Citi in 2013 was recently renewed, suggesting that both sides felt they could continue to build on the partner-specific routines that had been developed during the first five-year synergy realization phase.

In terms of network synergies, the gains from an improved structural position within a constellation alliance occur quickly. For example, when Continental merged with United, United's centrality and status within the Star Alliance network improved immediately. To illustrate how network synergies can erode, however, it is instructive to look at what happens when mergers cause airlines to switch constellation alliances. For example, Continental left SkyTeam to join Star Alliance when it merged with United, and US Airways left Star Alliance to join OneWorld when it merged with American. The centrality and status gained by those airlines through previous mergers was immediately lost, showing how quickly structural positions within networks can change because companies have little control over the actions of network partners.

Finally, attaining the support of non-market stakeholders is a very long process, and in some cases, may never occur. One need only observe that the media and consumer advocates rarely write favorable articles about airline mergers. However, airlines have continued investing in relationships with non-market actors, and the benefits of some non-market synergies have persisted. For example, on the tenth anniversary of its merger with Northwest, Delta touted the ongoing benefits of its continuing investments in its Salt Lake City hub: "While Salt Lake City is Delta's fourth largest hub (behind Atlanta, Detroit and Minneapolis), it is the airline's fastest-growing, adding 25 percent more seats since 2014. Salt Lake is part of a Western tri-hub structure for Delta with Los Angeles and Seattle. Salt Lake 'is more important and more valuable than it was as a stand-alone hub with a smaller West Coast presence prior to the merger,' [Delta chief financial officer Paul] Jacobson said. Fees paid by Delta will fund much of the ongoing \$3.6 billion project to rebuild Salt Lake City International Airport. 'It is a really big investment for us. I think it signals our value that we have for the airport and for the community... We are

grateful to the Salt Lake community, and hope that as we cross this 10-year milestone that everyone can see the benefits we've been able to generate,' Jacobson said" (Davidson, 2018).

The case of these airline mergers nicely brings the key features of our synergy typology to life, and it illustrates that a more expansive conceptualization of synergies may be needed to get at the total value created by a deal. In particular, the case illustrates how value can arise from external cooperative relationships with individual partners, from the networks in which they are embedded, and from relationships with non-market stakeholders—in addition to the operational and competitive improvements typically associated with airline mergers. The case also shows that some synergy types may reinforce each other and others may offset each other. And it demonstrates that each synergy type may create and sustain value over different time horizons.

DISCUSSION

Implications for Realized Value in M&A

We have explicitly sought to decouple the heterogeneous sources of synergy from their manifestations to develop a typology of synergies and their lifecycles. This allowed us to focus on the unique nature of the various types of assets that can combine to produce potential synergies. However, understanding the realization of that potential requires us to revisit the concept of value. The issue of value in M&A has received extensive treatment (Asquith, Bruner, & Mullins Jr, 1983; Capron & Pistre, 2002; Chatterjee, 1986; Kaplan & Weisbach, 1992; Bradley et al., 1988; Jensen & Ruback, 1983; Mulherin & Boone, 2000), as summarized in Appendix 1. We agree with the established idea that realized value requires the firm to pay a price that does not capitalize the synergy generated by the combination of acquirer and target (Barney, 1988). Put formulaically, *Realized Value* = *Synergy* – *Price*. But, our framework does suggest the following points, which represent important advancements from established thinking.

First, it may be useful to decompose the formula of value in M&A as follows:

$$Realized\ Value = Synergy_i + Co-Synergy_{i,j} - Dis-Synergy_{i,j} - Price$$

All we have done is decompose deal-level synergy into components specific to each of the five synergy types. *Synergy_i* is the value created by synergy type *i*, *Co-Synergy_{i,j}* represents

the cross-enhancement of synergies between type i and any of the other four types j , and *Dis-Synergy* $_{i,j}$ is the cross-dampening of synergies between type i and any of the other four types j . As always, the price paid applies to the acquisition as a whole.

Second, the decomposition implies that the relevant unit of analysis to understand potential and realized value is the individual synergy, not the deal as a whole—because different synergy types have different profit logics. There may be a one-to-one correspondence between deals and individual synergies in some cases (*e.g.*, an acquisition that produces only market power synergy), but most deals generate multiple synergy types.

Third, different synergies will be manifested through different performance indicators, so a single indicator of value for a deal may not capture the total value it creates. Fourth, the realization of value for different types of synergies occurs over different time scales, per the heterogeneity in lifecycles. These last two points make the quantification of the value created by any deal particularly challenging, because the metrics used to assess value for one synergy type may not readily compare with the metrics appropriate for another type, and because different time scales may be needed to determine when value is realized for the various synergies.

Much existing literature has focused on explaining the conditions under which one can infer that a deal created value for shareholders, empirically manifested in abnormal returns. This can be an important way to understand and measure value from business combinations, but prior work has discussed its limitations—particularly as a means of identifying *sources* of value (Houston, James, & Ryngaert, 2001; Sheen, 2014). Yet it remains, by far, the dominant means to measure value in M&A studies (see Appendix 1 and Table A1-3). Our framework offers an additional reason for a more pluralistic way to measure value in M&A: a single metric at the level of the deal, even if it manages to quantify total value, may not adequately identify the contribution to value of individual synergy types. Because notions of market power and efficiency have been around for a long time, and because they can be easily translated into revenues or costs, the stock market might reflect market power and internal synergies. Yet shareholders may be attuned to certain types of synergies but not others. For instance, the value

of network and stakeholder synergies may be harder to anticipate or not be seen as important by all investors. Making matters even more complex, shareholders are one stakeholder group with their own interests and agendas—which may or may not be compatible with the agendas of other stakeholders affected by a deal.¹⁶ And relational synergies may be more salient in some industries than others, depending on how important collaborative strategies are to profitability.

We thus propose that M&A scholars and practitioners broaden the ways in which they conceptualize and measure value. While deals must be understood and managed as a whole (Haspeslagh & Jemison, 1991), there is merit in at least starting by considering each synergy type as a separate unit of analysis, to better understand co- and dis-synergies for a more comprehensive notion of value created. Doing so requires developing appropriate indicators of value for each synergy kind, attuned to the nature of the assets involved and the timing implied by the lifecycle. Market power synergies may be captured by changes in prices and input costs for the combined firm (Barros, Brito, & de Lucena, 2006). Internal synergies, because they require time and proof of good integration, might be measured by specific operational metrics relevant to the value-producing asset (Sheen, 2014 is an excellent example, using product-level data). Relational synergies would require measuring partner-specific outcomes, perhaps with some subjective indicators (*e.g.*, surveys of both partners). Network synergies could be measured using standard graph metrics reflecting the desired position of the acquirer (*e.g.*, centrality, structural holes) (Hernandez & Shaver, 2019), through translating those metrics into revenues and costs is admittedly hard. Stakeholder synergies may be the hardest to capture, though techniques are emerging to capture the value of stakeholder engagement in general (*e.g.*, Henisz et al., 2014) and in M&A contexts specifically (Deng et al., 2013; Ferris, Houston, & Javakhadze, 2016). These synergy-type-specific indicators of value could also be used to

¹⁶ For example, Larry Fink's (BlackRock CEO) [recent letter](#) encouraging CEOs to focus on multiple stakeholders has been [applauded by some investors and derided by others](#), reflecting the long-standing philosophical debate between pro-shareholder and pro-stakeholder views. The rise of ESG as a critical factor in corporate valuation suggests that non-market stakeholders may be increasingly influencing shareholders, as indicated by the impending approval of reporting rules developed by the Sustainability Accounting Standards Board (www.sasb.org).

evaluate teams or managers responsible for different aspects of a merger and to track the progress of post-merger integration efforts (if relevant).

Before moving to other implications, we consider one more issue pertinent to how value has been conceived in prior research. We discussed already how our framework is informed by multiple classic theories of value including IO economics, RBV, RDT, TCE, and the more recent advances from the relational view, networks, and stakeholder theory. We have not yet considered how our framework relates to an additional important perspective: value-based strategy (VBS). VBS offers a rigorous set of conditions to understand when firms can generate economic rents when interacting with suppliers, buyers, and rivals. The four generic ways to create profit per VBS are: increase the willingness to pay of one's own customers, decrease the opportunity cost of one's own suppliers, decrease the willingness to pay of rivals' customers, or increase the opportunity cost of rivals' suppliers (Brandenburger & Stuart, 1996). VBS can be usefully incorporated in the context of M&A to explain how synergies will be *manifested*, because the four ways to profit are outcomes. But VBS does not explain the exact *sources* of rents in the M&A context, which is our objective. Each of the five synergy types can create value through one or more of the four generic means posited by VBS. For instance, a deal that brings together two valuable brands (internal synergy) can increase willingness to pay of the combining firms or undermine it for the acquirer's rivals. Or a merger can alter the coalition structure among firms' external cooperative partners in ways that modify their opportunity costs of collaborating with the acquirer or its rival (Chatain, 2010; Chatain & Zemsky, 2007), thus yielding relational, network, or stakeholder synergies (depending on the level at which coalitions are affected). In short, we view our framework as a useful input into VBS analysis in the context of M&A.

Other Implications

The concept of synergy lifecycles can be a useful lens to better understand post-merger integration. The five synergy types raise a first-order question: is integration required to realize value from potential synergies in the first place? Our work suggests that integration matters less for market power and network synergies and more in for internal, relational, and stakeholder

synergies. A second order issue raised by the typology is that, when integration is necessary, it will vary in difficulty and length according to synergy being pursued. Prior literature has said a lot about integrating for internal synergies, but almost nothing about integrating for relational and stakeholder synergies. We have argued that these latter two are unique because they involve interactions, trust-building, and negotiation with an external party in addition to the usual internal adjustments. Future research should explore the actual process involved in pulling off deals involving dual external-internal integration tasks.

This paper has important ramifications for empirical research. We noted above the need to use a more pluralistic set of value realization metrics (beyond CARs and accounting measures) to capture various synergy types. But we also need metrics to identify the existence of each synergy type, and event studies are not well-suited for such a task. One possibility is to conduct more studies focused on target selection. Empirical research on who acquires whom is sparse compared to work on performance outcomes (some exceptions include Hernandez & Shaver, 2019; Kaul & Wu, 2016; Mitchell & Shaver, 2003; Rogan & Sorenson, 2014). Yet target choice studies allow researchers to observe how *combinations* of specific acquirer and target attributes or assets affect the likelihood of a potential deal being realized, under the reasonable assumption that firms will be more likely to select a target the greater the expected synergy from the combination. For example, matching methods could be used to assess how various kinds of internal, external cooperative, or external competitive factors empirically (i.e. indicators of the five synergy types) predict acquirer-target combinations (Akkus, Cookson, & Hortaçsu, 2015; Rao, Yu, & Umashankar, 2016). Studies could also compare which kind of synergy is most important as a driver of M&A target choice across industries, competitive conditions, or institutional contexts.

Case-based methodologies (e.g., grounded theory) may offer important insights into how different types of synergies are managed and evolve over time to document the lifecycles proposed in Table 3. Just like the qualitative study by Graebner and Eisenhardt (2004) was valuable in uncovering the process by which sellers choose buyers in M&A, we hope that

qualitative work can also reveal how firms discover and realize (or fail to realize) the various types of synergies in our typology. We also believe that recent advances in text-based analysis (*e.g.*, NLP) and machine learning can be particularly useful to identify the types of synergies managers are seeking across different deals. Hoberg and Phillips (2010) and Rabier (2017) use some basic text analysis of annual reports, press releases, and conference calls to infer the types of synergies firms obtain through M&A. More sophisticated machine learning techniques offer the promise of analyzing large amounts of text and unlocking latent variables that may help identify distinct synergy sources. Finally, lab or field experiments can yield useful insights into some of the mechanisms that give rise to certain types of synergies (*e.g.* Davis & Wilson, 2008 generate market power effects in a lab experiment).

We considered the potential co- and dis-synergies across types, focusing on pairwise combinations. A higher order exercise could be to consider how various configurations of multiple synergy types may impact the novelty and value created by deals. Similar to technological recombination (Fleming, 2001; Schumpeter, 1934), synergy arises from the recombination of assets previously under the purview of separate firms, which the combined entity puts to some new use. Hence, synergies may not only differ by the types of underlying assets that come together (as we have emphasized) but also by how unique and original the configurations of assets combinations are. Unique configurations could exist within the synergy types we have proposed (*e.g.*, the originality of the combined internal assets), and also across types (*e.g.*, originality of the combination of internal assets, external networks, and stakeholder relations). Such metrics could also serve to study the difficulty of post-merger integration—deals involving more unique or complex recombinations of assets may be harder to pull off because of integration challenges, but offer greater payoffs if managed well (Rabier, 2017).

By developing a theoretically grounded and comprehensive typology of synergies, we have attempted to take the focus away from manifestations of synergy in M&A and towards their causes. We believe this approach allows for cleaner identification of potential synergies, more nuanced understanding of the heterogeneity of the lifecycles involved in trying to realize and

manage distinct types of synergies, and a broader conception of value than previously available. We hope this framework can be valuable for both scholars and managers interested in M&A.

REFERENCES

- Ahuja, G., & Yayavaram, S. 2011. Explaining Influence Rents: The Case for an Institutions-Based View of Strategy. *Organization Science*, 22(6): 1631–1652.
- Akkus, O., Cookson, J. A., & Hortaçsu, A. 2015. The Determinants of Bank Mergers: A Revealed Preference Analysis. *Management Science*, 62(8): 2241–2258.
- Anderson, H., Havila, V., & Salmi, A. 2001. Can you buy a business relationship?: On the importance of customer and supplier relationships in acquisitions. *Industrial Marketing Management*, 30(7): 575–586.
- Asquith, P., Bruner, R. F., & Mullins Jr, D. W. 1983. The gains to bidding firms from merger. *Journal of Financial Economics*, 11(1–4): 121–139.
- Austin, J. E., & Quinn, J. 2005. Ben & Jerry's: Preserving Mission and Brand Within Unilever. *Harvard Business School*, 2.
- Bain, J. S. 1951. Relation of profit rate to industry concentration: American manufacturing, 1936–1940. *The Quarterly Journal of Economics*, 65(3): 293–324.
- Baker, G., Gibbons, R., & Murphy, K. J. 2002. Relational Contracts and the Theory of the Firm. *The Quarterly Journal of Economics*, 117(1): 39–84.
- Barney, J. B. 1988. Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis. *Strategic Management Journal*, 9(S1): 71–78.
- Barros, P. P., Brito, D., & de Lucena, D. 2006. Mergers in the food retailing sector: An empirical investigation. *European Economic Review*, 50(2): 447–468.
- Bauer, F., & Matzler, K. 2014. Antecedents of M&A success: The role of strategic complementarity, cultural fit, and degree and speed of integration. *Strategic Management Journal*, 35(2): 269–291.
- Birkinshaw, J., Bresman, H., & Hakanson, L. 2000. Managing the post-acquisition integration process: How the human iintegration and task integration processes interact to foster value creation. *Journal of Management Studies*, 37(3): 395–425.
- Bosse, D. A., Harrison, J. S., & Hoskisson, R. E. 2018. Acquisitions, Stakeholder Economies of Scope, and Stakeholder Orientation. *Strategic Management Review*, forthcoming.
- Bothner, M. S., Podolny, J. M., & Smith, E. B. 2011. Organizing Contests for Status: The Matthew Effect vs. the Mark Effect. *Management Science*, 57(3): 439–457.
- Bourgeois III, L. J., Mariani, E., & Yu, V. J. 2003. Ben & Jerry's and Unilever: The Bohemian and the Behemoth. *Darden Business School Case*.
- Bradley, M., Desai, A., & Kim, E. H. 1988. Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, 21: 3–40.
- Brandenburger, A. M., & Stuart, H. W. 1996. Value-based business strategy. *Journal of Economics & Management Strategy*, 5(1): 5–24.
- Briscoe, F., & Tsai, W. 2011. Overcoming relational inertia: How organizational members respond to acquisition events in a law firm. *Administrative Science Quarterly*, 56(3): 408–440.
- Burt, R. S. 1983. *Corporate Profits and Cooptation: Networks of Market Constraints and Directorate Ties in the American Economy*. New York: Academic Press Inc.
- Burt, R. S. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R. S. 2002. Bridge decay. *Social Networks*, 24(4): 333–363.
- BusinessWire. 2018. CVS-Aetna Merger is Bad for HIV Patients, Says AHF. 2018, November 28. *BusinessWire*. <https://www.businesswire.com/news/home/20181128005401/en/CVS-Aetna-Merger-Bad-HIV-Patients-AHF>.

- Canina, L., Kim, J.-Y., & Ma, Q. 2010. What we know about M&A success: A research agenda for the lodging industry. *Cornell Hospitality Quarterly*, 51(1): 81–101.
- Capron, L. 1999. The long-term performance of horizontal acquisitions. *Strategic Management Journal*, 987–1018.
- Capron, L., & Pistre, N. 2002. When do acquirers earn abnormal returns? *Strategic Management Journal*, 23(9): 781–794.
- Chatain, O. 2010. Where do client-specific scope economies come from? A revealed preference analysis. *A Revealed Preference Analysis (February 10, 2010). Atlanta Competitive Advantage Conference*.
- Chatain, O., & Zemsky, P. 2007. The horizontal scope of the firm: Organizational tradeoffs vs. buyer-supplier relationships. *Management Science*, 53(4): 550–565.
- Chatterjee, S. 1986. Types of synergy and economic value: The impact of acquisitions on merging and rival firms. *Strategic Management Journal*, 7(2): 119–139.
- Cochran, P. L., & Wood, R. A. 1984. Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1): 42–56.
- Collis, D., Stuart, T., & Smith, T. 2008. *Cadbury Schweppes: Capturing Confectionery (A)*. Harvard Business School Case.
- Comanor, W. S., & Scherer, F. M. 2013. Mergers and innovation in the pharmaceutical industry. *Journal of Health Economics*, 32(1): 106–113.
- Crossan, M. M., & Apaydin, M. 2010. A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6): 1154–1191.
- Davidson, L. 2018, October 25. A decade after the big Delta-Northwest merger, the airline says its Salt Lake City hub has prospered. *The Salt Lake Tribune*.
<https://www.sltrib.com/news/politics/2018/10/25/decade-after-big-delta/>.
- Deng, X., Kang, J., & Low, B. S. 2013. Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*, 110(1): 87–109.
- Devos, E., Kadapakkam, P.-R., & Krishnamurthy, S. 2009. How Do Mergers Create Value? A Comparison of Taxes, Market Power, and Efficiency Improvements as Explanations for Synergies. *Review of Financial Studies*, 22(3): 1179–1211.
- DiMaggio, P. J., & Powell, W. W. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2): 147–160.
- Donaldson, L. 2001. *The Contingency Theory of Organizations*. Sage Publications.
- Dorobantu, S., Henisz, W. J., & Nartey, L. 2017. Not all sparks light a fire: Stakeholder and shareholder reactions to critical events in contested markets. *Administrative Science Quarterly*, 62(3): 561–597.
- Dyer, J. H., & Singh, H. 1998. The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4): 660–679.
- Elfenbein, D. W., & Zenger, T. R. 2013. What Is a Relationship Worth? Repeated Exchange and the Development and Deployment of Relational Capital. *Organization Science*, 25(1): 222–244.
- Fama, E. F., & Jensen, M. C. 1983. Separation of ownership and control. *Journal of Law and Economics*, 26(2): 301–325.
- Ferris, S. P., Houston, R., & Javakhadze, D. 2016. Friends in the right places: The effect of political connections on corporate merger activity. *Journal of Corporate Finance*, 41: 81–102.
- Fleming, L. 2001. Recombinant uncertainty in technological search. *Management Science*, 47(1): 117–132.
- Freeman, R. E. 1984. *Strategic Management: A stakeholder approach*. Boston: Pitman.
- Fubini, D. G., Garvin, D. A., & Knoop, C.-I. 2017. Merging American Airlines and US Airways (A). *Harvard Business School Case*. <https://www.hbs.edu/faculty/Pages/item.aspx?num=52042>.

- Fulghieri, P., & Sevilir, M. 2011. Mergers, spinoffs, and employee incentives. *The Review of Financial Studies*, 24(7): 2207–2241.
- Graebner, M. E. 2004. Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Strategic Management Journal*, 25(8–9): 751–777.
- Graebner, M. E., & Eisenhardt, K. M. 2004. The Seller's Side of the Story: Acquisition as Courtship and Governance as Syndicate in Entrepreneurial Firms. *Administrative Science Quarterly*, 49(3): 366–403.
- Grimpe, C., & Hussinger, K. 2014. Resource complementarity and value capture in firm acquisitions: The role of intellectual property rights. *Strategic Management Journal*, 35(12): 1762–1780.
- Gulati, R. 1998. Alliances and networks. *Strategic Management Journal*, 19(4): 293–317.
- Gulati, R., & Nickerson, J. A. 2008. Interorganizational trust, governance choice, and exchange performance. *Organization Science*, 19(5): 688–708.
- Haspeslagh, P. C., & Jemison, D. B. 1991. *Managing Acquisitions: Creating Value Through Corporate Renewal*. Free Press.
- Henisz, W. J. 2017. *Corporate diplomacy: Building reputations and relationships with external stakeholders*. Routledge.
- Henisz, W. J., Dorobantu, S., & Nartey, L. J. 2014. Spinning gold: The financial returns to stakeholder engagement. *Strategic Management Journal*, 35(12): 1727–1748.
- Hernandez, E., & Menon, A. 2018. Acquisitions, Node Collapse, and Network Revolution. *Management Science*, 64(4): 1652–1671.
- Hernandez, E., & Menon, A. 2019. Corporate Strategy and Network Change. *Academy of Management Review*, forthcoming. <https://doi.org/10.5465/amr.2018.0013>.
- Hernandez, E., & Shaver, J. M. 2019. Network Synergy. *Administrative Science Quarterly*, 64(1): 171–202.
- Hoberg, G., & Phillips, G. 2010. Product market synergies and competition in mergers and acquisitions: A text-based analysis. *The Review of Financial Studies*, 23(10): 3773–3811.
- Houston, J. F., James, C. M., & Ryngaert, M. D. 2001. Where do merger gains come from? Bank mergers from the perspective of insiders and outsiders. *Journal of Financial Economics*, 60(2–3): 285–331.
- Jensen, M. C., & Ruback, R. S. 1983. The market for corporate control: The scientific evidence. *Journal of Financial Economics*, 11(1–4): 5–50.
- Kale, P., Dyer, J. H., & Singh, H. 2002. Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strategic Management Journal*, 23(8): 747–767.
- Kang, H. 2018. How Does Competition Affect Innovation? Evidence from U.S. Antitrust Cases. *Working Paper, UC Berkeley*.
- Kanter, R. M., & Bird, M. 2009. *Procter & Gamble in the 21st Century (A): Becoming Truly Global*. Retrieved from Boston MA.
- Kaplan, S. N., & Weisbach, M. S. 1992. The Success of Acquisitions: Evidence from Divestitures. *Journal of Finance*, 47(1): 107–138.
- Kato, J., & Schoenberg, R. 2014. The impact of post-merger integration on the customer–supplier relationship. *Industrial Marketing Management*, 43(2): 335–345.
- Kaul, A., & Wu, B. 2016. A capabilities-based perspective on target selection in acquisitions. *Strategic Management Journal*, 37(7): 1220–1239.
- King, B. G., & Soule, S. A. 2007. Social movements as extra-institutional entrepreneurs: The effect of protests on stock price returns. *Administrative Science Quarterly*, 52(3): 413–442.
- Koons, C. 2019, February 13. J&J Acquires Robotic-Surgery Firm Auris for \$3.4 Billion. *Bloomberg*. <https://www.bloomberg.com/news/articles/2019-02-13/j-j-said-to-acquire-robotic-surgery-firm-auris-for-3-4-billion>.

- Krishnan, R. A., Joshi, S., & Krishnan, H. 2004. The influence of mergers on firms' product-mix strategies. *Strategic Management Journal*, 25(6): 587–611.
- Larsson, R., & Finkelstein, S. 1999. Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: A case survey of synergy realization. *Organization Science*, 10(1): 1–26.
- Lavie, D. 2006. The competitive advantage of interconnected firms: an extension of the resource-based view. *Academy of Management Review*, 31(3): 638–658.
- Leland, H. E. 2007. Financial synergies and the optimal scope of the firm: Implications for mergers, spinoffs, and structured finance. *The Journal of Finance*, 62(2): 765–807.
- Loyd, L. 2013, February 24. How US Airways snagged the merger with American Airlines. *The Philadelphia Inquirer*.
https://www.inquirer.com/philly/business/20130224_How_US_Airways_snagged_the_merger_with_American_Airlines.html.
- Lubatkin, M. 1987. Merger strategies and stockholder value. *Strategic Management Journal*, 8(1): 39–53.
- Maire, S., & Colletette, P. 2011. International post-merger integration: Lessons from an integration project in the private banking sector. *International Journal of Project Management*, 29(3): 279–294.
- Malmendier, U., & Tate, G. 2005. Does Overconfidence Affect Corporate Investment? CEO Overconfidence Measures Revisited. *European Financial Management*, 11(5): 649–659.
- Marks, M. L., & Mirvis, P. H. 2001. Making mergers and acquisitions work: Strategic and psychological preparation. *Academy of Management Perspectives*, 15(2): 80–92.
- McAdam, D., & McCarthy, J. D. 1996. *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings*. Cambridge University Press.
- Mecia, T. 2013, February 19. American, US Airways Merger Could Launch Credit Card Battle. *Fox Business*. <https://www.foxbusiness.com/features/american-us-airways-merger-could-launch-credit-card-battle>.
- Meyer, K. E., & Lieb-Dóczy, E. 2003. Post-acquisition restructuring as evolutionary process. *Journal of Management Studies*, 40(2): 459–482.
- Mitchell, W., & Shaver, J. M. 2003. Who Buys What? How Integration Capability Affects Acquisition Incidence and Target Choice. *Strategic Organization*, 1(2): 171–201.
- Montgomery, C. A. 1994. Corporate Diversification. *Journal of Economic Perspectives*, 8(3): 163–178.
- Mouawad, J. 2011, May 18. Delta-Northwest Merger's Long and Complex Path. *The New York Times*. <https://www.nytimes.com/2011/05/19/business/19air.html>.
- Mulherin, J. H., & Boone, A. L. 2000. Comparing acquisitions and divestitures. *Journal of Corporate Finance*, 6(2): 117–139.
- Newman, M. E. 2001. Clustering and preferential attachment in growing networks. *Physical Review E*, 64(2): 025102.
- Öberg, C. 2014. Customer relationship challenges following international acquisitions. *International Marketing Review*, 31(3): 259–282.
- Odziemkowska, K. D. 2019. *The Allies of Others: How Stakeholders' Relationships Shape Non-Market Strategy*. Philadelphia, PA: Dissertation, University of Pennsylvania.
- Pablo, A. L. 1994. Determinants of acquisition integration level: A decision-making perspective. *Academy of Management Journal*, 37(4): 803–836.
- Palmatier, R. W., Miao, C. F., & Fang, E. 2007. Sales channel integration after mergers and acquisitions: A methodological approach for avoiding common pitfalls. *Industrial Marketing Management*, 36(5): 589–603.

- Passy, J. 2019, February 11. SunTrust and BB&T are merging — here's what customers need to know. *MarketWatch*. <https://www.marketwatch.com/story/suntrust-and-bbt-are-merging-heres-what-customers-need-to-know-2019-02-09>.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations*. New York: Harper & Row.
- Poppo, L., & Zenger, T. 2002. Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, 23(8): 707–725.
- Porter, M. E. 1980. Competitive Strategy. *New York*.
- Powell, W. W. 1990. Neither Market Nor Hierarchy: Network Forms of Organization. *Research in Organizational Behavior*, 12: 295–336.
- PR Newswire. 2004. *QLT Inc. and Atrix Laboratories Inc. combine to create leading profitable biopharmaceutical company*.
- Puranam, P., Singh, H., & Chaudhuri, S. 2009. Integrating Acquired Capabilities: When Structural Integration Is (Un)necessary. *Organization Science*, 20(2): 313–328.
- Puranam, P., & Vanneste, B. 2016. *Corporate strategy: Tools for analysis and decision-making*. Cambridge University Press.
- Rabier, M. R. 2017. Acquisition Motives and the Distribution of Acquisition Performance. *Strategic Management Journal*.
- Ranft, A. L., & Lord, M. D. 2002. Acquiring new technologies and capabilities: A grounded model of acquisition implementation. *Organization Science*, 13(4): 420–441.
- Rao, V. R., Yu, Y., & Umashankar, N. 2016. Anticipated vs. Actual Synergy in Merger Partner Selection and Post-Merger Innovation. *Marketing Science*, 35(6): 934–952.
- Rogan, M. 2013. Too Close for Comfort? The Effect of Embeddedness and Competitive Overlap on Client Relationship Retention Following an Acquisition. *Organization Science*, 25(1): 185–203.
- Rogan, M., & Greve, H. R. 2015. Resource Dependence Dynamics: Partner Reactions to Mergers. *Organization Science*, 26(1): 239–255.
- Rogan, M., & Sorenson, O. 2014. Picking a (Poor) Partner A Relational Perspective on Acquisitions. *Administrative Science Quarterly*, 59(2): 301–329.
- Saboo, A. R., Sharma, A., Chakravarty, A., & Kumar, V. 2017. Influencing acquisition performance in high-technology industries: the role of innovation and relational overlap. *Journal of Marketing Research*, 54(2): 219–238.
- Salancik, G. R. 1995. Wanted: A Good Network Theory of Organization. *Administrative Science Quarterly*, 40(2): 345–349.
- Salter, M. S., & Weinhold, W. A. 1979. *Diversification through acquisition: Strategies for creating economic value*. Free Pr.
- Sanati, C. 2013, October 23. Delta proves that consolidation drives up ticket fares. *Fortune*. <http://fortune.com/2013/10/23/delta-proves-that-consolidation-drives-up-ticket-fares/>.
- Sasovova, Z., Mehra, A., Borgatti, S. P., & Schippers, M. C. 2010. Network churn: The effects of self-monitoring personality on brokerage dynamics. *Administrative Science Quarterly*, 55(4): 639–670.
- Sauder, M., Lynn, F., & Podolny, J. M. 2012. Status: Insights from Organizational Sociology. *Annual Review of Sociology*, 38(1): 267–283.
- Schilling, M. A., & Steensma, H. K. 2002. Disentangling the Theories of Firm Boundaries: A Path Model and Empirical Test. *Organization Science*, 13(4): 387–401.
- Schumpeter, J. 1934. *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- Schweizer, L. 2005. Organizational Integration of Acquired Biotechnology Companies into Pharmaceutical Companies: The Need for a Hybrid Approach. *Academy of Management Journal*, 48(6): 1051–1074.

- Schweizer, L., & Patzelt, H. 2012. Employee commitment in the post-acquisition integration process: The effect of integration speed and leadership. *Scandinavian Journal of Management*, 28(4): 298–310.
- Shaver, J. M. 2006. A Paradox of Synergy: Contagion and Capacity Effects in Mergers and Acquisitions. *Academy of Management Review*, 31(4): 962–976.
- Sheen, A. 2014. The real product market impact of mergers. *The Journal of Finance*, 69(6): 2651–2688.
- Sherman, H. D., & Rupert, T. J. 2006. Do bank mergers have hidden or foregone value? Realized and unrealized operating synergies in one bank merger. *European Journal of Operational Research*, 168(1): 253–268.
- Singh, H., & Montgomery, C. A. 1987. Corporate acquisition strategies and economic performance. *Strategic Management Journal*, 8(4): 377–386.
- Uzelac, B., Bauer, F., Matzler, K., & Waschak, M. 2016. The moderating effects of decision-making preferences on M&A integration speed and performance. *The International Journal of Human Resource Management*, 27(20): 2436–2460.
- Van de Ven, A. H., & Poole, M. S. 1995. Explaining development and change in organizations. *Academy of Management Review*, 20(3): 510–540.
- Walsh, B. 2019, March 22. Black Farmers Group Asks Regulators to Block BB&T Merger With SunTrust Banks. *Barron's*. <https://www.barrons.com/articles/black-farmers-group-asks-regulators-to-block-bank-megamerger-51553275769>.
- Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal*, 5(2): 171–180.
- Wiles, M. A., Morgan, N. A., & Rego, L. L. 2012. The effect of brand acquisition and disposal on stock returns. *Journal of Marketing*, 76(1): 38–58.
- Williamson, O. E. 1975. Markets and hierarchies. *American Economic Review*, 63(2): 316–325.
- Williamson, O. E. 1991. Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36(2): 269–296.
- Wry, T., Cobb, J. A., & Aldrich, H. E. 2013. More than a metaphor: Assessing the historical legacy of resource dependence and its contemporary promise as a theory of environmental complexity. *The Academy of Management Annals*, 7(1): 441–488.
- Zaheer, A., Castañer, X., & Souder, D. 2013. Synergy sources, target autonomy, and integration in acquisitions. *Journal of Management*, 39(3): 604–632.
- Zaheer, A., Gözübüyük, R., & Milanov, H. 2010. It's the Connections: The Network Perspective in Interorganizational Research. *The Academy of Management Perspectives*, 24(1): 62–77.
- Zaheer, A., McEvily, B., & Perrone, V. 1998. Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science*, 9(2): 141–159.
- Zollo, M., Reuer, J. J., & Singh, H. 2002. Interorganizational Routines and Performance in Strategic Alliances. *Organization Science*, 13(6): 701–713.

Table 1
Typology of Acquisition Synergies

NOTE: This table provides a definition for each synergy type and lists the main theoretical lens upon which the distinct logic of economic rent for each synergy is based. Figure 1 illustrates the two underlying dimensions that give rise to the five synergy types, and Figure 2 illustrates how each synergy arises from a different locus in the firm's environment.

Type	Definition	Source of Value	Theoretical Lens
Internal	Combination of resources or capabilities that the acquirer and target own or control directly, not shared with another party, that jointly enhance revenues or lower costs.	Efficiency	Resources (RBV) and capabilities
Market Power	Combination of assets or industry positions that reduces gives the combined firm power in competitive interactions, such as eliminating or weakening a rival, increasing buying power, or increasing pricing power.	Market power	IO economics
Relational	Enhancement of assets shared with a third party made possible by the combination of the acquirer and target. The third party typically has a contractual relationship with the merged firm, and could be a vertical (supplier, buyer) or horizontal (alliance) partner.	Relational	Relational view, contracting
Network	Combination of acquirer and target's pre-acquisition ego networks that improves the combined firm's structural position (<i>e.g.</i> , centrality, structural holes, status). The ego network comprises the combining firms' direct <i>and</i> indirect (2 nd order) ties.	Structural position	Networks
Non-Market	Combination of the relationships of the acquirer and target with non-market stakeholders (<i>e.g.</i> , governments, communities, NGOs) that enhances the firm's ability to gain legitimacy from those stakeholders.	Legitimacy	Stakeholder theory, non-market strategy, institutional theory, social movements

Table 2
Distinctions between Synergy Types

NOTE: Read as follows: The row explains the difference with respect to the type in the column.

	Internal	Market Power	Relational	Network	Non-Market
Internal	n/a	Value from assets the acquirer owns and controls, not competitive interactions in the market	Internal assets may impact external partners, but acquirer owns and unilaterally controls them	Internal assets may impact network structure, but acquirer owns and unilaterally controls them	Internal assets may impact stakeholders, but acquirer owns and unilaterally controls them
Market Power	Value from acquirer's competitive position in industry, not from internal resources or capabilities per se	n/a	Interactions with external parties are competitive and zero-sum, rather than collaborative and mutually beneficial	Power from eliminating or controlling individual competitive interactions (tie may or may not be needed), not from structure of network	Power from eliminating or limiting competitive interactions, rather than legitimacy in non-market interactions
Relational	Assets are shared and partner-specific (cooperation), not unilaterally controlled by the acquirer (fiat)	Interactions with external parties are cooperative and mutually beneficial, rather than competitive and zero-sum	n/a	Value from partner-specific exchange in individual direct tie (separate value for each dyadic tie), not from position in network composed of <i>all</i> direct and indirect ties	Value from contractual, market-based relationship between similar parties (<i>e.g.</i> , firms), not from non-market relationships between dissimilar parties (<i>e.g.</i> , firm & NGO)
Network	Value from position in network, not from assets that acquirer owns and unilaterally controls	Influence from position in network (direct + indirect ties), not from eliminating or controlling individual competitive interactions (tie may or may not be needed)	Value from position in network of direct & indirect ties, not from partner-specific exchange in individual direct ties (dyads)	n/a	Value from position in network of market-based ties between similar parties (<i>e.g.</i> , firms), rather than non-market relationships between dissimilar parties (<i>e.g.</i> , firm & NGO)
Non-Market	Value from non-market relations between dissimilar parties (<i>e.g.</i> , firm and NGO), rather than from assets that acquirer owns and controls	Value from legitimacy-focused interactions with non-market stakeholders (cooperation), rather than competition-focused market interactions with rivals	Value from non-market relations between dissimilar parties (<i>e.g.</i> , firm and NGO), rather than market relationships between similar parties (<i>e.g.</i> , firms)	Value from non-market relationships between dissimilar parties (<i>e.g.</i> , firm and NGO), rather than position in network of market relationships between similar parties	n/a

Table 3
Synergy Lifecycles

NOTE: The degree of integration affects the timing of initial realization, and the degree of control over value-creating activities affects the duration of synergy gains. Those factors explain differences in lifecycles *across* synergy types (see Propositions 1-2). Alignment- and stability-related variables affect realization and duration timing, respectively, *within* synergy types (see Propositions 3-12).

Type	Degree of Integration Needed	Timing of Initial Synergy Realization	Degree of Control Over Value-Creating Activities	Duration of Synergy Gains	Alignment-Related Variable (modifies realization timing, see propositions in text)	Stability-Related Variables (modifies duration timing, see propositions in text)
Internal	Medium to High	Medium	High	Long, requiring continued investment (personnel, technology, etc.)	Organizational and strategic fit (pre-acquisition)	Integration management capabilities
Market Power	Low	Short	High	Long, if industry forces remain in equilibrium	Vertical vs. horizontal acquisition	Intensity of rivalry in the industry (post-acquisition)
Relational	Medium to High	Long	Low to Medium	Medium, requiring continued relational investment	Trust between third party and acquirer/target (pre-acquisition)	Partner-specific routines (post-acquisition)
Network	Low	Immediate	Low	Short, as surrounding structure can change fast and without the firm's control	Overlap in ties between acquirer and target (pre-acquisition)	Network churn (post-acquisition)
Non-Market	High	Very long	Low to Medium	Medium, requiring continued investment in stakeholder relationships and issue expertise	Alignment of stakeholder interests (pre-acquisition)	Contentiousness of stakeholder field (post-acquisition)

Table 4
Factors Leading to Co-Synergies and Dis-Synergies with Each Synergy Type

NOTE: This table lays out the general factors driving co- and dis-synergies with any of the other types. See Tables 6 and 7 for pairwise co-synergies and dis-synergies, respectively.

Type	Co-Synergies	Dis-Synergies
Internal	Recombinations of internal assets may generate new resources and capabilities that complement the assets powering the other four synergy types	Recombinations of internal assets may lead to new capabilities that are misapplied or fit poorly with competitors and collaborators in the post-acquisition external environment
Market Power	Stronger competitive position insulates the acquirer, allowing it to dedicate more resources to the assets or relationships giving rise to the other four synergy types	Stronger competitive position reduces the acquirer's incentives to dedicate resources to the assets or relationships giving rise to the other four synergy types
Relational	Stronger value creation with specific third parties allows the acquirer to improve other relationships with external counterparties that give rise to market power, network, or stakeholder synergies. They also may facilitate the development of internal assets giving rise to internal synergies.	Maintaining strong dyadic relationships with key suppliers, buyers, or alliance partners to support relational synergies may require constraining behaviors that would generate other synergies (e.g. competitive actions for market power, controlling actions in the network)
Network	Improved network position helps acquirer better manage or control resources or relationships that give rise to the other four synergy types	The new structural position occupied by the firm, and the role implied by that position (e.g., broker, connector), can constrain behaviors that would generate other synergies
Non-Market	Legitimacy gains help acquirer to work better with internal and external counterparties because of improved support and legitimacy from the non-market stakeholder environment	Maintaining legitimacy with some non-market stakeholders can force the acquirer to constrain behavior that could generate other synergies, to stay in the good graces of powerful constituents

Table 5
Pairwise Co-Synergies between Synergy Types

NOTE: Read as follows: The row offers examples of co-synergy with respect to the type in the column. The examples provided are meant to be illustrative, not exhaustive. See the text for more detailed examples.

	Internal	Market Power	Relational	Network	Non-Market
Internal	n/a	Stronger internal resources and capabilities may help gain pricing power with buyers or suppliers, or reduce price competition with rivals	Enhanced alliance management capabilities can help acquirer better manage relationships with specific external partners (new or pre-existing)	Improved internal structure and processes can help acquirer better exploit a network position (e.g. integrating resources or knowledge gained via the network)	Enhanced non-market capabilities or expertise with social issues can help acquirer better manage new or existing stakeholders
Market Power	Insulation from competition may allow the acquirer to invest more in complementary assets with the target, or accelerate post-merger integration	n/a	Enhanced market power from consolidating vertical external relationships may enable acquirer to manage a smaller set of external partners better	Increased market power (vertical or horizontal) may give the firm more power and control in vertical or horizontal cooperative networks	Enhanced market power (within limits) may legitimate the acquirer in the eyes of key non-market stakeholders
Relational	Better relations with external partners may help acquirer develop resources that gave rise to internal synergies (e.g. access to partner IP accelerates internal R&D)	Trust with horizontal or vertical external partners may lessen uncooperative behavior from backlash against the acquirer's increased market power	n/a	Stronger dyadic ties reduce network churn, lengthening the life of the firm's newly improved network position	Suppliers, buyers, or alliance partners with positive ties to the focal firm can enable good relations with stakeholders via referral, endorsements, etc.
Network	Improved structural position may help acquirer access resources that complement internal activities	Increased influence in horizontal or vertical networks may bolster the market power and control of the firm	Improved network position may strengthen trust or enhance stability of individual partnerships (stronger dyadic ties)	n/a	Improved network position may give the firm influence or legitimacy over key stakeholders
Non-Market	Non-market stakeholders may offer support for the development of internal capabilities that complement goals of stakeholders	Non-market stakeholders may support, legitimate the firm's increased market power (if this helps the stakeholders' interests)	Non-market stakeholders may lend support to strengthen individual relations with suppliers, buyers, or other partners	Non-market stakeholders may support, legitimate the firm's new position (or role) in the network	n/a

Table 6
Pairwise Dis-Synergies between Synergy Types

NOTE: Read as follows: The row explains the dis-synergy with respect to the type in the column. The examples provided are meant to be illustrative, not exhaustive. See the text for more detailed examples.

	Internal	Market Power	Relational	Network	Non-Market
Internal	n/a	New internal resources or capabilities may be insufficient for or poorly suited to acquirer's post-acquisition market position (bad internal-industry fit)	New internal resources or capabilities may reduce incentives and ability to develop trusting, cooperative ties with third parties (bad internal-relational fit)	New internal resources or capabilities may reduce incentives and ability to manage the totality of the firm's external network ties (bad internal-network fit)	New internal resources or capabilities may be insufficient for or poorly suited to acquirer's post-acquisition non-market environment (bad internal-institutional fit)
Market Power	Lower competition may reduce incentives for acquirer to exploit internal sources of value with target	n/a	Trust, willingness to cooperate of external partners may be strained by increased market power of acquirer	Network partners may mistrust increased market power of acquirer and therefore exit or modify the network, shortening life of network synergies	Stakeholders may consider market power illegitimate, withdraw or limit support for acquirer (e.g., boycott)
Relational	Stronger relationships with individual partners may reduce incentives for acquirer to develop internal sources of value	To enhance trust, cooperation with partners, acquirer may need to refrain from extracting all the value it could from its greater market power	n/a	Stronger ties with one partner may undermine trust with other partners in the network, reducing value of overall position	Stakeholders may view acquirer's stronger relationships with some partners (e.g. a "dirty" supplier) as illegitimate
Network	Managing a larger, more complex network may take divert resources from developing stronger internal assets with target	The acquirer's new network position and partners may constrain its ability to fully exercise newfound market power (to maintain cooperation)	Individual external partners may be threatened by acquirer's stronger position in network, withdrawing support or trust	n/a	Stakeholders may view acquirer's existing network as illegitimate, prefer that acquirer invests in and develop a different network
Non-Market	Resources dedicated to new and larger set of non-market stakeholders take away from internal investments.	To enhance trust, cooperation of non-market stakeholders, acquirer may need to refrain from fully exercising market power	Non-market stakeholders may not approve of strong relationships with certain external commercial partners, limit value created with those partners	The firm may not be able to fully take advantage of its newfound structural position (e.g., brokerage) because stakeholders do not approve of the implied role	n/a

Figure 1
Typology of Synergies

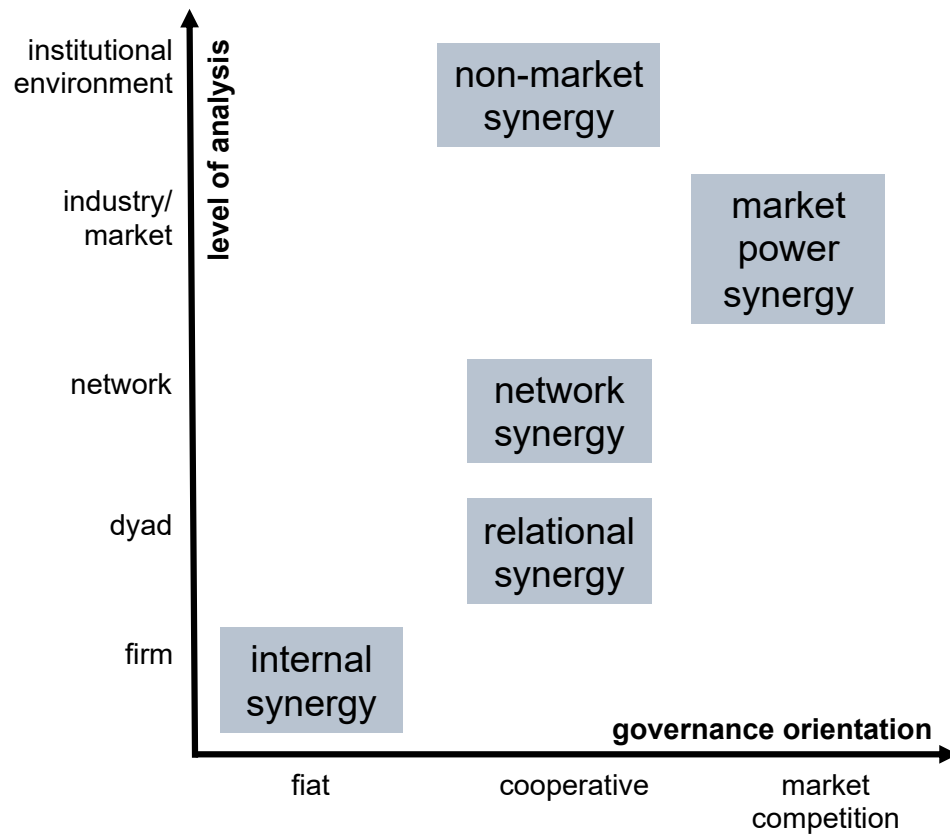
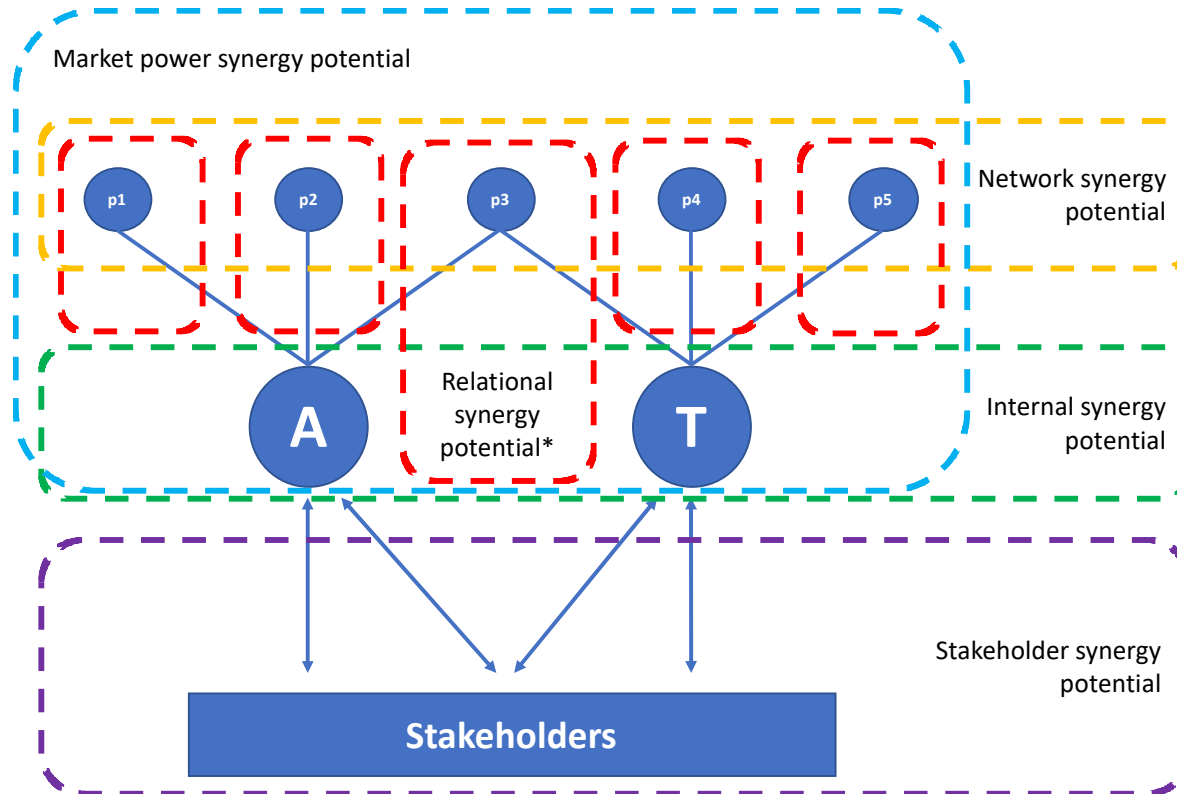


Figure 2 (Best in Color)
Locus of Value for Different Synergy Types

NOTE: This is meant to illustrate how different types of synergy arise by affecting different parts of a firm's environment.



Legend

A = Acquirer, T = Target

p1-p5 = Partners of the acquirer or target (supplier, buyer, or alliance partner)

Stakeholders = non-market actors that are influenced or influence A or T

Internal synergies may arise from combinations of assets owned and controlled by A or T.

Market power synergies may arise from A gaining power over T or p1-p5 (competitive environment)

Relational synergies may arise from improved management of one or more INDIVIDUAL partnerships after the merger (e.g. p1, p5)

Network synergies may arise from the structural combination of ALL the partnerships of A and T

Stakeholder synergies may arise from A gaining influence over or approval from stakeholders

Figure 3
Depiction of Network Synergies

NOTE: This depicts two ways in which acquisitions can produce network synergies by combining the previously separate networks of two firms. See the text for further explanation, and Hernandez and Shaver (2018) for a lengthier exposition and empirical analysis.

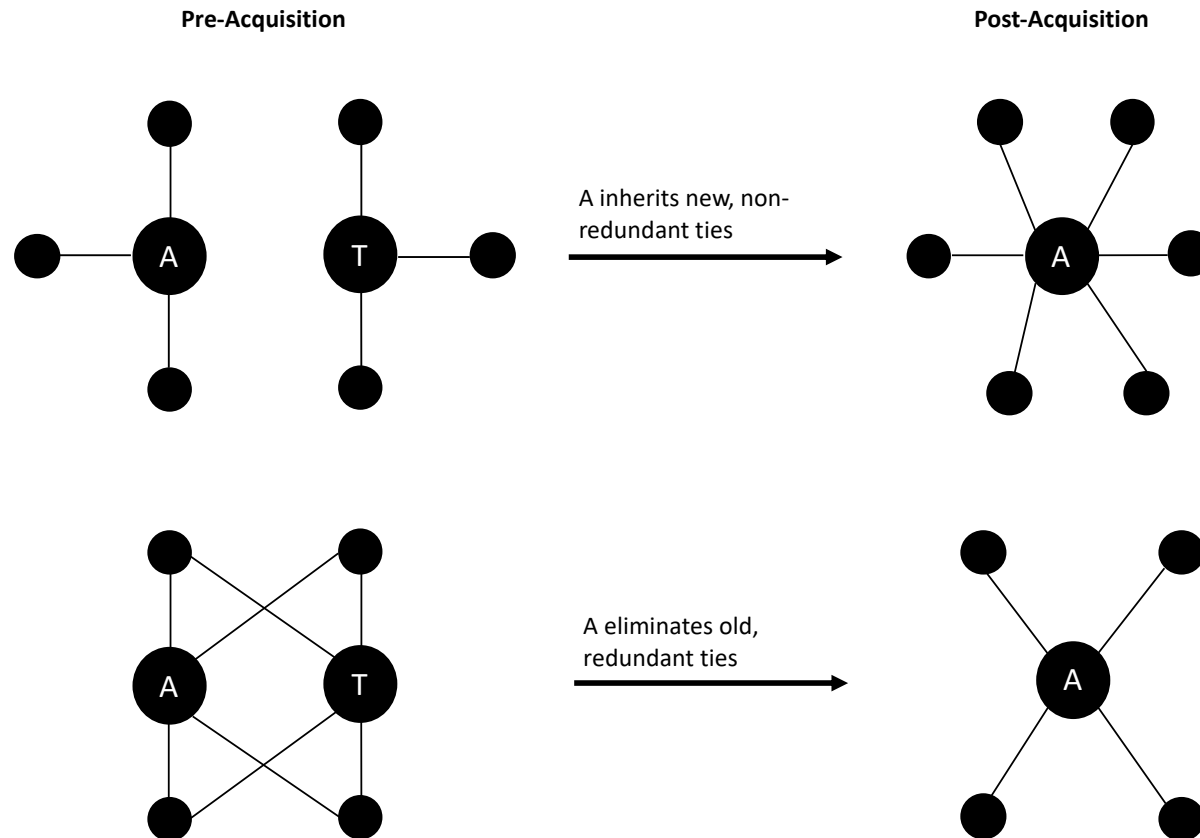


Figure 4
Depiction of Synergy Lifecycles (Comparative)

NOTE: This is a stylized depiction of the “average” shape of each synergy lifecycle, designed to contrast differences in the timing of initial realization and in the duration of synergies across types (see Propositions 1-2). Figures 5a-5e depict how certain variables modify the “average” shape for each synergy type. While some acquirers begin to work on post-merger integration at the time of announcement, synergies cannot begin to be realized until deal completion—hence the horizontal axis begins at the time the deal is completed.

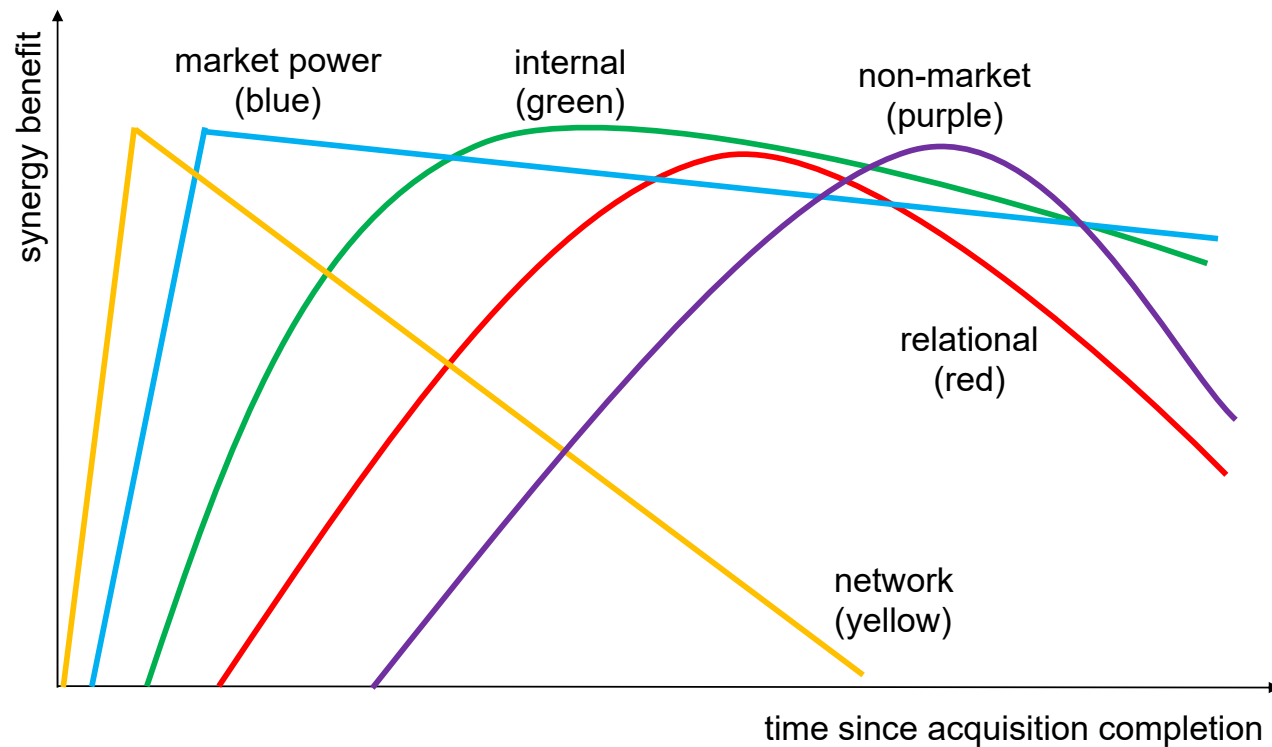
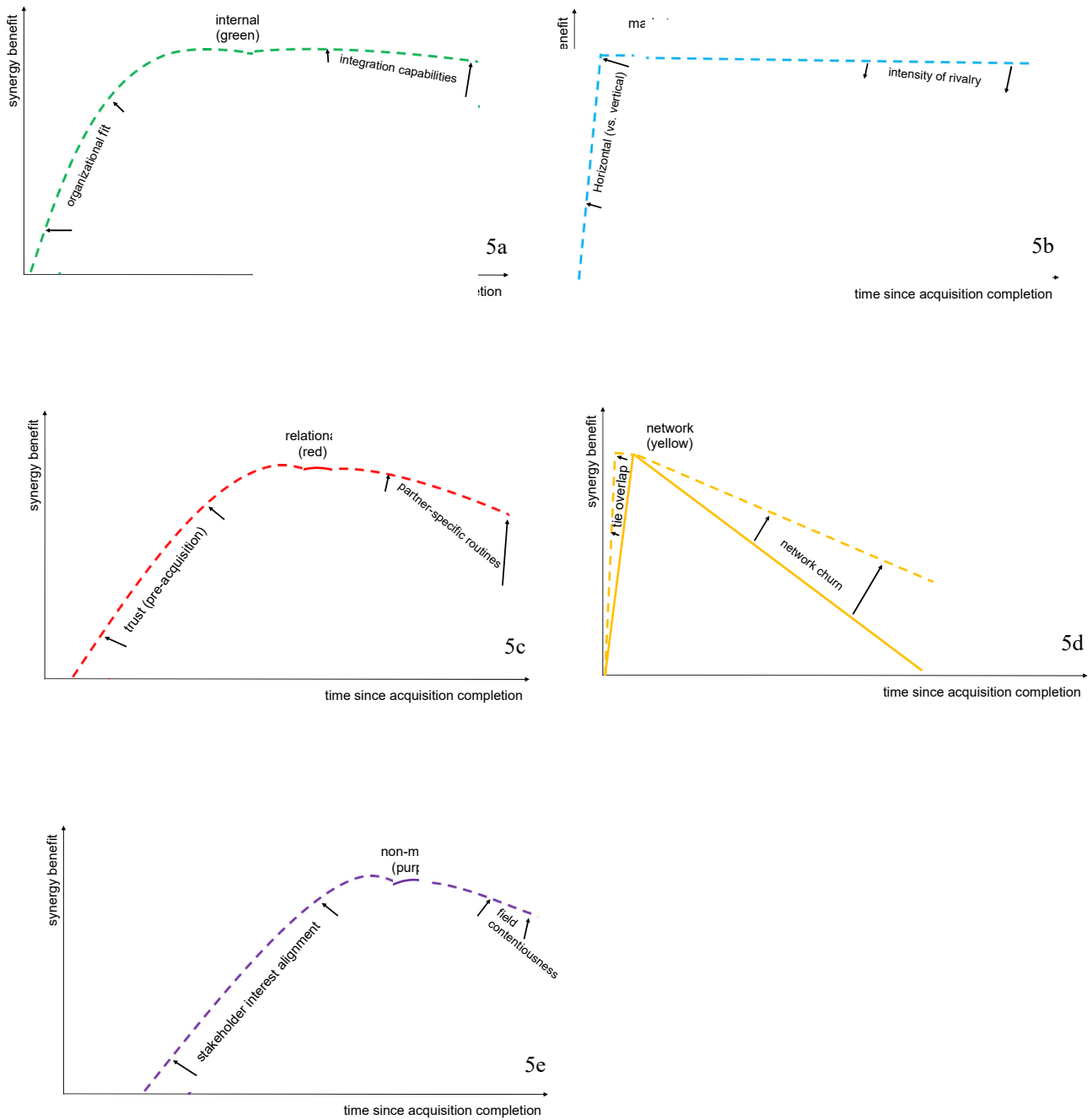


Figure 5
Depiction of Variables Modifying Synergy Lifecycles

NOTE: The explanation for how each variable modifies the initial realization and duration of synergies can be found in the text (see Propositions 3-12).



APPENDIX 1: SYSTEMATIC REVIEW OF LITERATURE ON VALUE/SYNERGY IN M&A

As a foundation for our study, we sought to develop an understanding of prior art focused on the underlying *sources* of value in M&A, as opposed to studies focused on performance outcomes. We thus conducted a systematic literature review of research explicitly mentioning synergy or value in the context of M&A, based on the methodology proposed by Tranfield, Denyer, and Smart (2003) and modeled on the paper by Crossan and Apaydin (2010).

The first phase in a systematic literature review is to determine objective and replicable search terms to find articles on the relevant topic. We relied on the Web of Science database and used the following criteria. First, we searched for all articles published between 1945 and 2018 that contained the terms “merg*”, “acqui*”, or “M&A” in the title and were in the English language. This yielded nearly 80,000 results, most of which had nothing to do with corporate M&A (e.g. articles about the “acquisition” of a language or a disease). Thus, the second filter applied was that articles had to be in the following Web of Science categories: management, economics, business, or business finance. This yielded just over 5,700 results. Because our focus is on the literature discussing value or synergy sources, we applied a third filter: articles had to contain the words “synerg*” or “value*”. This resulted in 1,260 potentially relevant articles. Like any search, ours has its limitations. In particular, articles about factors influencing the performance of M&A that do not use terms such as synergy or value are liable to being left out even if they contain relevant considerations. Similarly, articles about diversification—which may via organic growth instead of M&A—may be excluded from our search even if they contain ideas relevant for understanding value in the context of M&A. We do not claim that our search encompasses the universe of relevant articles, but we believe it is reasonable to limit this exercise to articles that explicitly consider synergy or value in the context of M&A because those are the most likely to discuss the underlying mechanisms that influence performance in the setting of interest for our study.

The second phase in a systematic literature review is to determine which articles to read more carefully for relevant content. We followed Tranfield et al. (2010) closely by identifying three groups of papers: highly-cited papers, recent papers (published in the three years prior, or 2016-2018), and reviews and meta-analyses. We found 670 papers that fell under at least one of these criteria. We used the Web of Science criterion of 5 citations or more to consider a paper “highly cited”, of which we identified 616 papers (582 published before 2016 and 34 published during 2016-2018). Because recently published papers have less time to be cited, we had to use something other than citations to determine which to keep. We identified papers that were published in either the top ten most cited journals publishing work on value/synergy in M&A or in the *Financial Times* top 50 journals. This yielded 54 papers published during 2016-2018 that were cited fewer than five times. Within the 670 papers identified based on citations or journal, we found 8 that could be classified as reviews or meta analyses.

The third phase of the review was to evaluate the content of the 670 papers to ensure that they considered synergy or value sources in the context M&A. By reading the title and abstract of every paper we eliminated 381 studies that clearly did not fit the topic of interest. The two most common reasons were that the study was not about M&A but about something else such as “customer acquisition” or that the study was set in the context of M&A but emphasized factors unrelated to the value or synergy created by the deal (e.g. purely about accounting or financing methods, about behavioral/agency issues unrelated to value or performance, or in which the M&A was used as the empirical context to advance another theory or topic unrelated to M&A performance). We erred on the side of not excluding papers at this stage--any study that even indirectly considered value, synergy, or M&A performance was kept for further review.

This left us with 289 articles that we read carefully for content. We systematically coded whether each article considered a *source* of value/synergy/performance (by source we refer to any kind of mechanism or explanation for engaging in M&A activity or for the performance of a deal) and what that source of value was (if mentioned). We coded the dependent and independent

variables(s) used. And we tracked the methodology (e.g. event study, formal model, regression) and the field of study (management, financial economics, marketing).

We found that 41 articles considered value/synergy/performance but offered no explanation as to what explained the value/synergy/performance of the deal or for any of the firms involved. Overwhelmingly, these were event studies that measured the stock market reaction to the deal through cumulative abnormal returns but without explaining why or how the deal affected shareholder value—that is, the articles implicitly or explicitly assumed that stock returns were sufficient indicators of value creation per se.

The remaining 248 articles did offer some kind of explanation for the motive or performance of the deal, and these form the basis of our primary conclusions about the state of research on the *sources* of synergy or value in M&A (see the references for the full list). Table A1-1 summarizes the various cuts we made at different phases of the search, and Figure A1-1 shows the time trend in the publication of the final set of 248 articles that consider sources of synergy or value. Table A1-2 also shows the top 10 journals publishing those articles, along with the number papers published by each journal and the percentage of citations.

The area of greatest interest for purposes of our paper was to understand which sources or mechanisms of value were most frequently discussed in prior literature, as summarized in Figure A1-2. We find that the vast majority of studies have offered internal/efficiency (47%), market power (16.5%), or agency/governance (16%) explanations for the occurrence and performance of M&A. This is congruent with Montgomery's (1994) oft-cited summary of the research on diversification. Financial considerations are the fourth most commonly discussed, followed by studies that considered many possible explanations for value but did not clearly conclude which one was driving value in their analysis (we label these as “unclear”). A very small number of studies considered explanations based on external relationships: non-market stakeholders (8 papers, or about 2.4% of mentions of any kind of synergy), relationships with vertical or horizontal partners (5 papers, or 1.5%), or networks of multiple relationships (4 papers, or

roughly 1%). We offer a more theoretically rich interpretation and evaluation of these facts in the main body of the paper.

Another area of interest in our review was to understand how value is measured in empirical studies, as summarized in Table A1-3. The most salient feature of the table is the dominance of stock market indicators of M&A performance—abnormal returns are used in over 63% of studies (mostly announcement period returns, but also long-term returns and those of rivals in a few cases), and other indicators of stock market value (e.g. market capitalization) an additional 6.45% of the time. If anything, this is a significant undercounting of stock market indicators of performance in the context of M&A because, as mentioned earlier, we eliminated studies that assessed deal performance without any explanation of the sources of that performance. The next most common way to measure performance is based on financial statement (accounting) indicators such as ROA, EBIT, sales, costs, and cash flows (> 17%). Then there is a long tail of more idiosyncratic metrics of performance such as survey-based perceptions, firm productivity, patent-based (innovation) indicators, etc. We note that a handful of studies did not assess M&A performance per se, but attempted to get at the rationale or motive for deals based on other dependent variables such as the choice to engage in M&A or the choice of target (each just over 6%) or the post-acquisition redeployment of assets and capabilities (just over 4%). But these represent significant minorities of the scholarly efforts to explain where synergy or value comes from in M&A. Table A1-4 further summarizes the categories of independent variables used in the studies we reviewed, with measures of relatedness playing a dominant role in the literature—which is as expected given the prevalence of internal/operational mechanisms to explain M&A performance.

Finally, we offer a simple schematic summary of the main relationships studied by this literature in Figure A1-3, distinguishing between antecedents and performance outcomes of M&A and listing the most commonly used independent variables to explain the outcome (listed in order of frequency). Perhaps most striking is the paucity of research on antecedents of M&A compared to that on their performance consequences. In terms of the former, a handful of studies

(roughly 30) have considered the number of deals made by firms, the factors leading them to select a certain target, or in a few cases the aggregate number of deals occurring at the industry level. The studies at the firm level emphasize internal/efficiency explanations, and primarily measure the strategic relatedness of the acquirer and target or the capabilities of the target. While not prominent in our literature review, we also include transaction costs as an important precursor of the choice to acquire because of the importance of that literature in explaining the organizational strategy of firms. The studies at the industry level, unsurprisingly, focus on measures capturing the structure of the industry (e.g. concentration).

In terms of the performance consequences of M&A, we found that studies could be grouped in three categories: those focused on stock market or accounting performance, those focusing on operational performance, and those focusing on managers' subjective assessments of performance based on surveys. A striking aspect of this research is that many of the same independent variables are used to explain different types of performance—most notably the relatedness of acquirer and target. And often similar types of measures are interpreted by scholars as indicators of different kinds of synergy or value (e.g. relatedness is used in work on both internal and market power synergies). However, there are also some important differences. Stock market and accounting performance studies tend to emphasize industry structure and governance (board or TMT attributes) indicators. Studies of operational performance rely more on indicators of capabilities and organizational fit. And studies based on surveys emphasize events occurring post-merger, in particular integration and resource redeployment, more than other studies. We note that variables pertaining to the external cooperative environments of firms do not occur frequently enough in the literature for us to include them as part of the established canon of factors considered as explaining either the antecedents of consequences of M&A. Our conceptual framework in the main body of the paper seeks to rectify this deficiency.

Table A1-1

	Initial Pool	Eliminated (Abstract)	Duplicates	Value Source not Considered	Final
Reviews and meta-analyses	8	0	0	0	8
Highly cited papers	608	338	8	41	221
Recent papers	88	59	10	0	19
					248

Table A1-2
Top 10 Journals Publishing Articles on Synergy/Value Sources in M&A

Journal	# articles	# citations	% of most cited
Strategic Management Journal	22	2362	22.39%
Journal of Financial Economics	21	1842	17.46%
Journal of Banking & Finance	19	750	7.11%
Journal of Finance	11	1970	18.68%
Journal of International Business Studies	8	785	7.44%
Review of Financial Studies	6	452	4.29%
Journal of Corporate Finance	6	203	1.92%
International Business Review	6	168	1.59%
Management Science	6	74	0.70%
Rand Journal of Economics	5	337	3.20%
British Journal of Management	5	255	2.42%
Long Range Planning	5	151	1.43%

Figure A1-1
Articles Published by Year

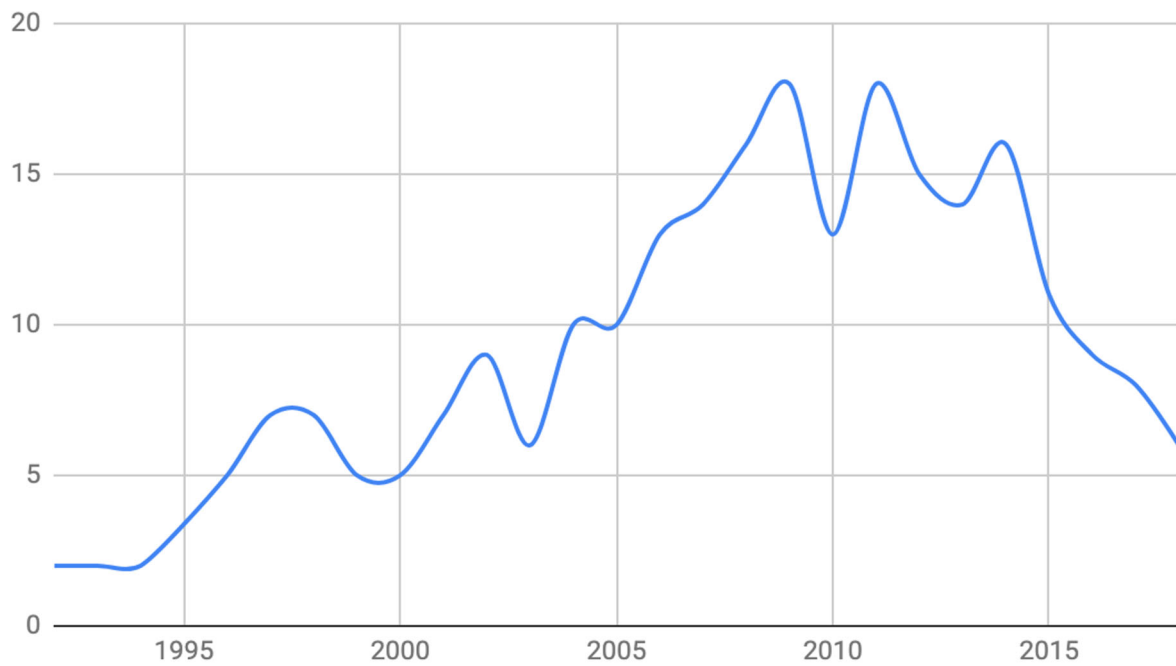


Figure A1-2
Source of Synergy/Value Considered

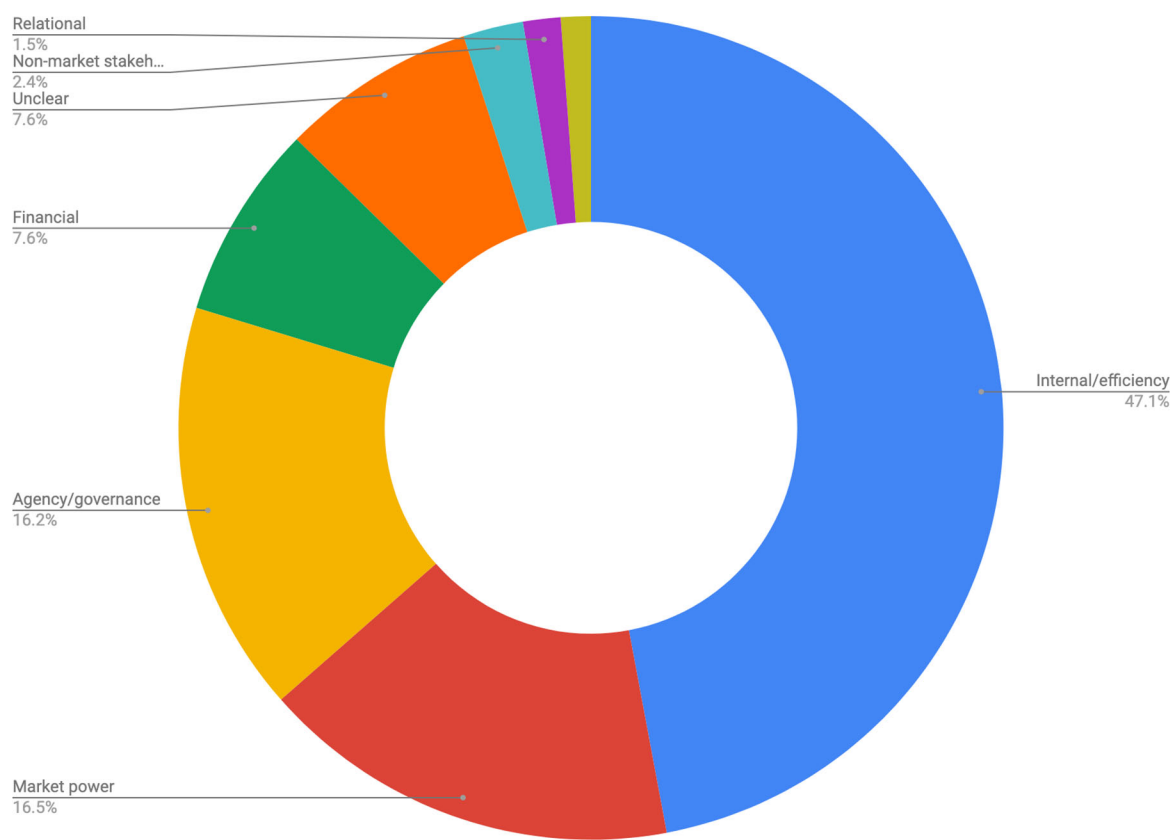


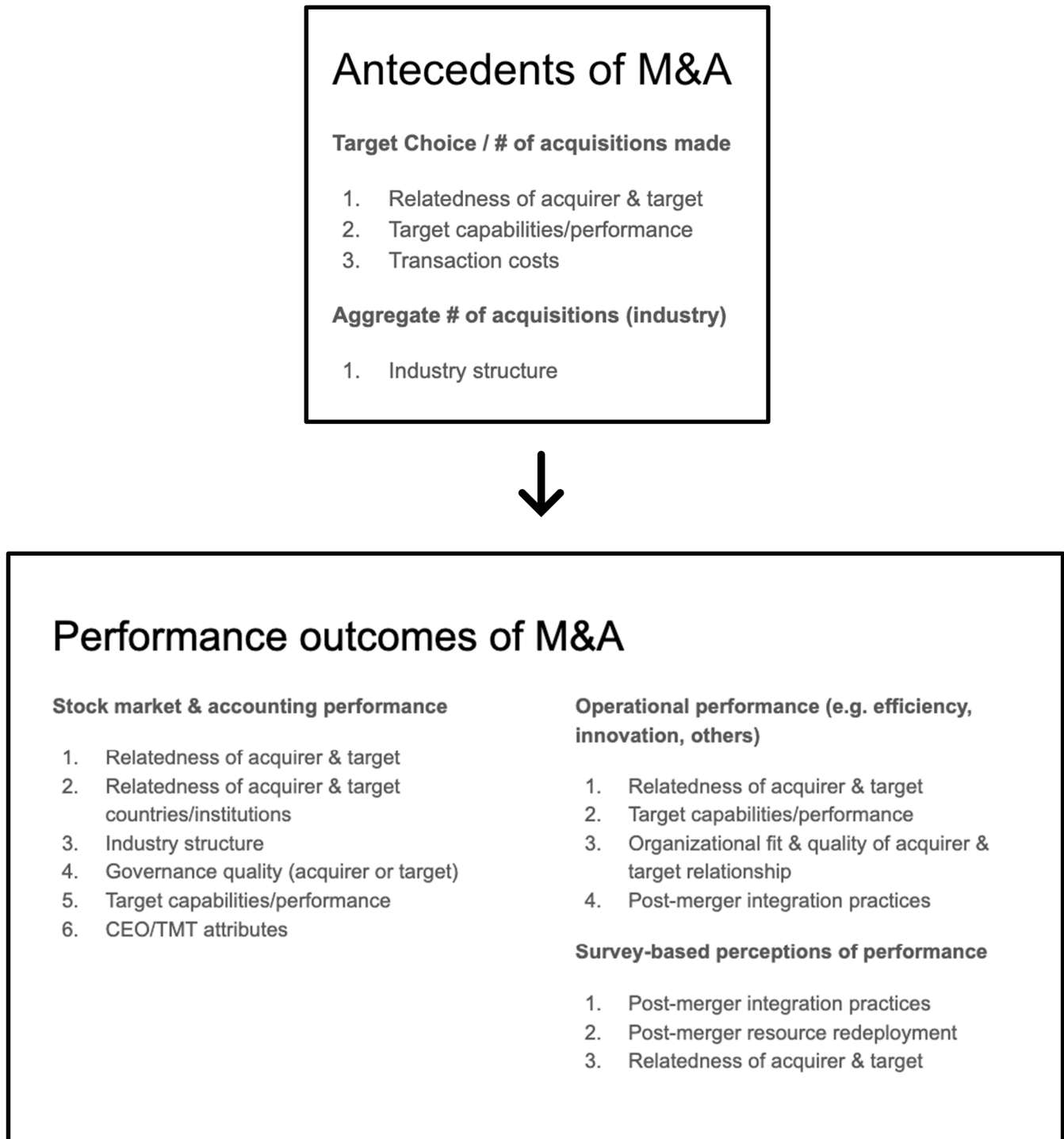
Table A1-3
Dependent Variables Used in Studies of Synergy/Value in M&A

Dependent variable	Frequency	% of articles
Abnormal returns:	157	63.31%
Upon announcement (CAR)	126	50.81%
Long term (e.g. BHAR)	24	9.68%
Of rivals, upon announcement	7	2.82%
Accounting/financial statement:	43	17.34%
Accounting profit (e.g. ROA, EBIT)	22	8.87%
Revenue/Sales increase	8	3.23%
Cost Reduction	7	2.82%
Cash flow	6	2.42%
Market value	16	6.45%
Number/Probability of Acquisitions	16	6.45%
Survey-based performance assessment	15	6.05%
Premium/price paid	15	6.05%
Target choice	15	6.05%
Post-acquisition deployment of capabilities/resources	11	4.44%
Productivity/efficiency improvement	9	3.63%
Aggregate number of acquisitions (at industry/economy)	7	2.82%
Innovation/patents	7	2.82%
Product/brand improvement or quality	6	2.42%
Risk	6	2.42%
Price of products	4	1.61%
Indicators of governance quality	4	1.61%
Deal completion	3	1.21%
Accounting goodwill (changes or impairment)	3	1.21%
Market share	2	0.81%
Payment method	2	0.81%
Changes in external ties/relationships/networks	2	0.81%
*Based on 238 empirical papers		

Table A1-4
Categories of Independent Variables Used in Studies of Synergy/Value in M&A

		% of studies
Independent variable category	Frequency	w/clear IV
Relatedness vs. unrelatedness of A & T	56	30.11%
Relatedness vs. unrelatedness of A & T countries/institutions	32	17.20%
Governance quality	23	12.37%
Target capabilities/performance	21	11.29%
Industry structure	16	8.60%
Post-merger integration practices	14	7.53%
Post-merger resource redeployment	13	6.99%
Financial structure	12	6.45%
Organizational fit/pre-deal relationship b/w A & T	12	6.45%
CEO/TMT attributes	10	5.38%
Acquirer capabilities/performance	9	4.84%
Quality of stakeholder/CSR relations	5	2.69%
External (third party) relationships of A or T	5	2.69%
Other	27	14.52%
* Out of 186 studies that had a clearly identifiable independent variable. Some articles did not have an independent variable (e.g. pure event studies) or did not report a clear theoretical interest in a specific IV.		

Figure A1-3
Relationships and Main Explanatory Variables in Studies of Synergy/Value in M&A



REFERENCES: APPENDIX 1

- Aguilera, RV; Dencker, JC. 2004. The role of human resource management in cross-border mergers and acquisitions. *International Journal of Human Resource Management*. 15(8): 1355-1370.
- Ahern, KR; Daminelli, D; Fracassi, C. 2015. Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics*. 117(1): 165-189.
- Ahn, S; Jiraporn, P; Kim, YS. 2010. Multiple directorships and acquirer returns. *Journal of Banking & Finance*. 34(9): 2011-2026.
- Akdogu, E. 2011. Value-Maximizing Managers, Value-Increasing Mergers, and Overbidding. *Journal of Financial and Quantitative Analysis*. 46(1): 83-110.
- Akhigbe, A; Madura, J. 1999. Intra-industry signals embedded in bank acquisition announcements. *Journal of Banking & Finance*. 23(11): 1637-1654.
- Akhigbe, A; Martin, AD. 2002. Do Microsoft acquisitions benefit the computer industry?. *Financial Analysts Journal*. 58(4): 19-27.
- Akkus, O; Cookson, JA; Hortacsu, A. 2016. The Determinants of Bank Mergers: A Revealed Preference Analysis. *Management Science*. 62(8): 2241-2258.
- Aktas, N; de Bodt, E; Cousin, JG. 2011. Do financial markets care about SRI? Evidence from mergers and acquisitions. *Journal of Banking & Finance*. 35(7): 1753-1761.
- Alessandrini, P; Calcagnini, G; Zazzaro, A. 2008. Asset restructuring strategies in bank acquisitions: Does distance between dealing partners matter?. *Journal of Banking & Finance*. 32(5): 699-713.
- Alimov, A. 2015. Labor market regulations and cross-border mergers and acquisitions. *Journal of International Business Studies*. 46(8): 984-1009.
- Almeida, H; Campello, M; Hackbarth, D. 2011. Liquidity mergers. *Journal of Financial Economics*. 102(3): 526-558.
- Ambrosini, V; Bowman, C; Schoenberg, R. 2011. Should Acquiring Firms Pursue More Than One Value Creation Strategy? An Empirical Test of Acquisition Performance. *British Journal of Management*. 22(1): 173-185.
- Anand, J; Capron, L; Mitchell, W. 2005. Using acquisitions to access multinational diversity: thinking beyond the domestic versus cross-border M&A comparison. *Industrial and Corporate Change*. 14(2): 191-224.
- Anand, J; Singh, H. 1997. Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*. 18(): 99-118.
- Anderson, SP; Loertscher, S; Schneider, Y. 2010. The ABC of complementary products mergers. *Economics Letters*. 106(3): 212-215.
- Andrade, G; Mitchell, M; Stafford, E. 2001. New evidence and perspectives on mergers. *Journal of Economic Perspectives*. 15(2): 103-120.
- Andreou, PC; Louca, C; Panayides, PM. 2012. Valuation effects of mergers and acquisitions in freight transportation. *Transportation Research Part E-Logistics and Transportation Review*. 48(6): 1221-1234.
- Angwin, DN; Meadows, M. 2009. The Choice of Insider or Outsider Top Executives in Acquired Companies. *Long Range Planning*. 42(3): 359-389.
- Arikan, AM; Capron, L. 2010. Do Newly Public Acquirers Benefit or Suffer From Their Pre-IPO Affiliations With Underwriters and VCs?. *Strategic Management Journal*. 31(12): 1257-1289.
- Arnold, M; Parker, D. 2007. UK competition policy and shareholder value: The impact of merger inquiries. *British Journal of Management*. 18(1): 27-43.
- Asimakopoulous, I; Athanasoglou, PP. 2013. Revisiting the merger and acquisition performance of European banks. *International Review of Financial Analysis*. 29(): 237-249.
- Ayadi, R; Boussemart, JP; Leleu, H; Saidane, D. 2013. Mergers and Acquisitions in European banking higher productivity or better synergy among business lines?. *Journal of Productivity Analysis*. 39(2): 165-175.

- Aybar, B; Ficici, A. 2009. Cross-border acquisitions and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies*. 40(8): 1317-1338.
- Bae, KH; Kang, JK; Kim, JM. 2002. Tunneling or value added? Evidence from mergers by Korean business groups. *Journal of Finance*. 57(6): 2695-2740.
- Bahadir, SC; Bharadwaj, SG; Srivastava, RK. 2008. Financial Value of Brands in Mergers and Acquisitions: Is Value in the Eye of the Beholder?. *Journal of Marketing*. 72(6): 49-64.
- Banerjee, A; Eckard, EW. 1998. Are mega-mergers anticompetitive? evidence from the first great merger wave. *Rand Journal of Economics*. 29(4): 803-827.
- Barbopoulos, L; Marshall, A; MacInnes, C; McColgan, P. 2014. Foreign direct investment in emerging markets and acquirers' value gains. *International Business Review*. 23(3): 604-619.
- Barbopoulos, L; Paudyal, K; Pescetto, G. 2012. Legal systems and gains from cross-border acquisitions. *Journal of Business Research*. 65(9): 1301-1312.
- Barracrough, K; Robinson, DT; Smith, T; Whaley, RE. 2013. Using Option Prices to Infer Overpayments and Synergies in M&A Transactions. *Review of Financial Studies*. 26(3): 695-722.
- Barros, PP; Brito, D; de Lucena, D. 2006. Mergers in the food retailing sector: An empirical investigation. *European Economic Review*. 50(2): 447-468.
- Basu, N; Dimitrova, L; Paeglis, I. 2009. Family control and dilution in mergers. *Journal of Banking & Finance*. 33(5): 829-841.
- Bauer, F; Matzler, K. 2014. Antecedents of M&A Success: The Role Of Strategic Complementarity, Cultural Fit, And Degree And Speed Of Integration. *Strategic Management Journal*. 35(2): 269-291.
- Becher, DA. 2009. Bidder returns and merger anticipation: Evidence from banking deregulation. *Journal of Corporate Finance*. 15(1): 85-98.
- Becher, DA; Mulherin, JH; Walkling, RA. 2012. Sources of Gains in Corporate Mergers: Refined Tests from a Neglected Industry. *Journal of Financial and Quantitative Analysis*. 47(1): 57-89.
- Becker-Blease, JR; Goldberg, LG; Kaen, FR. 2008. Mergers and acquisitions as a response to the deregulation of the electric power industry: value creation or value destruction?. *Journal of Regulatory Economics*. 33(1): 21-53.
- Ben-Amar, W; Andre, P. 2006. Separation of ownership from control and acquiring firm performance: The case of family ownership in Canada. *Journal of Business Finance & Accounting*. 33(4-Mar): 517-543.
- Bena, J; Li, K. 2014. Corporate Innovations and Mergers and Acquisitions. *Journal of Finance*. 69(5): 1923-1960.
- Benson, D; Ziedonis, RH. 2009. Corporate Venture Capital as a Window on New Technologies: Implications for the Performance of Corporate Investors When Acquiring Startups. *Organization Science*. 20(2): 329-351.
- Benson, D; Ziedonis, RH. 2010. Corporate venture capital and the returns to acquiring portfolio companies. *Journal of Financial Economics*. 98(3): 478-499.
- Bereskin, F; Byun, SK; officer, MS; Oh, JM. 2018. The Effect of Cultural Similarity on Mergers and Acquisitions: Evidence from Corporate Social Responsibility. *Journal of Financial and Quantitative Analysis*. 53(5): 1995-2039.
- Bergh, DD. 1997. Predicting divestiture of unrelated acquisitions: An integrative model of ex ante conditions. *Strategic Management Journal*. 18(9): 715-731.
- Bernad, C; Fuentelsaz, L; Gomez, J. 2010. The effect of mergers and acquisitions on productivity: An empirical application to Spanish banking. *Omega-International Journal of Management Science*. 38(5): 283-293.
- Bernile, G; Lyandres, E; Zhdanov, A. 2012. A Theory of Strategic Mergers. *Review of Finance*. 16(2): 517-575.
- Bertrand, O; Betschinger, MA. 2012. Performance of domestic and cross-border acquisitions: Empirical evidence from Russian acquirers. *Journal of Comparative Economics*. 40(3): 413-437.
- Bhagat, S; Malhotra, S; Zhu, PC. 2011. Emerging country cross-border acquisitions: Characteristics, acquirer returns and cross-sectional determinants. *Emerging Markets Review*. 12(3): 250-271.

- Birkinshaw, J; Bresman, H; Hakanson, L. 2000. Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation. *Journal of Management Studies*. 37(3): 395-425.
- Breitzman, A; Thomas, P; Cheney, M. 2002. Technological powerhouse or diluted competence: techniques for assessing mergers via patent analysis. *R & D Management*. 32(1): 1-10.
- Bris, A; Brisley, N; Cabolis, C. 2008. Adopting better corporate governance: Evidence from cross-border mergers. *Journal of Corporate Finance*. 14(3): 224-240.
- Bris, A; Cabolis, C. 2008. The value of investor protection: Firm evidence from cross-border mergers. *Review of Financial Studies*. 21(2): 605-648.
- Brock, DM. 2005. Multinational acquisition integration: the role of national culture in creating synergies. *International Business Review*. 14(3): 269-288.
- Brouthers, KD; van Hastenburg, P; van den Ven, J. 1998. If most mergers fail why are they so popular?. *Long Range Planning*. 31(3): 347-353.
- Brueller, NN; Carmeli, A; Markman, GD. 2018. Linking Merger and Acquisition Strategies to Postmerger Integration: A Configurational Perspective of Human Resource Management. *Journal of Management*. 44(5): 1793-1818.
- Brusco, S; Lopomo, G; Robinson, DT; Viswanathan, S. 2007. Efficient mechanisms for mergers and acquisitions. *International Economic Review*. 48(3): 995-1035.
- Brush, TH. 1996. Predicted change in operational synergy and post-acquisition performance of acquired businesses. *Strategic Management Journal*. 17(1): 1-24.
- Cakici, N; Hessel, C; Tandon, K. 1996. Foreign acquisitions in the United States: Effect on shareholder wealth of foreign acquiring firms. *Journal of Banking & Finance*. 20(2): 307-329.
- Capron, L; Hulland, J. 1999. Redeployment of brands, sales forces, and general marketing management expertise following horizontal acquisitions: A resource-based view. *Journal of Marketing*. 63(2): 41-54.
- Capron, L; Mitchell, W; Swaminathan, A. 2001. Asset divestiture following horizontal acquisitions: A dynamic view. *Strategic Management Journal*. 22(9): 817-844.
- Capron, L; Pistre, N. 2002. When do acquirers earn abnormal returns?. *Strategic Management Journal*. 23(9): 781-794.
- Capron, L; Shen, JC. 2007. Acquisitions of private vs. public firms: Private information, target selection, and acquirer returns. *Strategic Management Journal*. 28(9): 891-911.
- Carayannopoulos, S; Auster, ER. 2010. External knowledge sourcing in biotechnology through acquisition versus alliance: A KBV approach. *Research Policy*. 39(2): 254-267.
- Carr, C. 1999. Globalisation, strategic alliances, acquisitions and technology transfer. Lessons from ICL/Fujitsu and Rover/Honda and BMW. *R & D Management*. 29(4): 405-421.
- Cartwright, S; Schoenberg, R. 2006. Thirty years of mergers and acquisitions research: Recent advances and future opportunities. *British Journal of Management*. 17(): S1-S5.
- Chakrabarti, R; Gupta-Mukherjee, S; Jayaraman, N. 2009. Mars-Venus marriages: Culture and cross-border M&A. *Journal of International Business Studies*. 40(2): 216-236.
- Chamberlain, SL; Tennyson, S. 1998. Capital shocks and merger activity in the property-liability insurance industry. *Journal of Risk and Insurance*. 65(4): 563-595.
- Chang, YB; Cho, W. 2017. The Risk Implications of Mergers and Acquisitions with Information Technology Firms. *Journal of Management Information Systems*. 34(1): 232-267.
- Chase, DG; Burns, DJ; Claypool, GA. 1997. A suggested ethical framework for evaluating corporate mergers and acquisitions. *Journal of Business Ethics*. 16(16): 1753-1763.
- Chatterjee, S; Lubatkin, MH; Schweiger, DM; Weber, Y. 1992. Cultural-Differences And Shareholder Value In Related Mergers - Linking Equity And Human-Capital. *Strategic Management Journal*. 13(5): 319-334.
- Cho, SH. 2014. Horizontal Mergers in Multitier Decentralized Supply Chains. *Management Science*. 60(2): 356-379.
- Cho, SH; Wang, X. 2017. Newsvendor Mergers. *Management Science*. 63(2): 298-316.

- Chondrakis, G. 2016. Unique synergies in technology acquisitions. *Research Policy*. 45(9): 1873-1889.
- Church, J; Gandal, N. 2000. Systems competition, vertical merger, and foreclosure. *Journal of Economics & Management Strategy*. 9(1): 25-51.
- Cicon, J; Clarke, J; Ferris, SP; Jayaraman, N. 2014. Managerial Expectations of Synergy and the Performance of Acquiring Firms: The Contribution of Soft Data. *Journal of Behavioral Finance*. 15(3): 161-174.
- Clougherty, JA; Duso, T. 2009. The Impact of Horizontal Mergers on Rivals: Gains to Being Left Outside a Merger. *Journal of Management Studies*. 46(8): 1365-1395.
- Clougherty, JA; Duso, T. 2011. Using rival effects to identify synergies and improve merger typologies. *Strategic Organization*. 9(4): 310-335.
- Comanor, WS; Scherer, FM. 2013. Mergers and innovation in the pharmaceutical industry. *Journal of Health Economics*. 32(1): 106-113.
- Cornett, MM; Hovakimian, G; Palia, D; Tehranian, H. 2003. The impact of the manager-shareholder conflict on acquiring bank returns. *Journal of Banking & Finance*. 27(1): 103-131.
- Cummins, JD; Klumpes, P; Weiss, MA. 2015. Mergers and Acquisitions in the Global Insurance Industry: Valuation Effects. *Geneva Papers On Risk and Insurance-Issues and Practice*. 40(3): 444-473.
- Cummins, JD; Xie, XY. 2008. Mergers and acquisitions in the US property-liability insurance industry: Productivity and efficiency effects. *Journal of Banking & Finance*. 32(1): 30-55.
- Darkow, IL; Kaup, C; Schiereck, D. 2008. Determinants of Merger & Acquisition success in global logistics. *International Journal of Logistics-Research and Applications*. 11(5): 333-345.
- Datta, S; Iskandar-Datta, M; Raman, K. 2001. Executive compensation and corporate acquisition decisions. *Journal of Finance*. 56(6): 2299-2336.
- Davidson, C; Mukherjee, A. 2007. Horizontal mergers with free entry. *International Journal of Industrial Organization*. 25(1): 157-172.
- Davis, DD; Wilson, BJ. 2008. Strategic buyers, horizontal mergers and synergies: An experimental investigation. *International Journal of Industrial Organization*. 26(3): 643-661.
- Degbey, W; Pelto, E. 2013. Cross-border M&A as a trigger for network change in the Russian bakery industry. *Journal of Business & Industrial Marketing*. 28(3): 178-189.
- DeLong, G. 2003. Does long-term performance of mergers match market expectations? Evidence from the US banking industry. *Financial Management*. 32(2): 5-25.
- DeLong, GL. 2001. Stockholder gains from focusing versus diversifying bank mergers. *Journal of Financial Economics*. 59(2): 221-252.
- Deng, X; Kang, JK; Low, BS. 2013. Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*. 110(1): 87-109.
- Devos, E; Kadapakkam, PR; Krishnamurthy, S. 2009. How Do Mergers Create Value ? A Comparison of Taxes, Market Power, and Efficiency Improvements as Explanations for Synergies. *Review of Financial Studies*. 22(3): 1179-1211.
- DeYoung, R; Evanoff, DD; Molyneux, P. 2009. Mergers and Acquisitions of Financial Institutions: A Review of the Post-2000 Literature. *Journal of Financial Services Research*. 36(3-Feb): 87-110.
- Dimopoulos, T; Sacchetto, S. 2017. Merger activity in industry equilibrium. *Journal of Financial Economics*. 126(1): 200-226.
- Ding, R; Jia, YP. 2012. Auditor mergers, audit quality and audit fees: Evidence from the PricewaterhouseCoopers merger in the UK. *Journal of Accounting and Public Policy*. 31(1): 69-85.
- Dos Santos, MB; Errunza, VR; Miller, DP. 2008. Does corporate international diversification destroy value? Evidence from cross-border mergers and acquisitions. *Journal of Banking & Finance*. 32(12): 2716-2724.
- Du, M; Boateng, A. 2015. State ownership, institutional effects and value creation in cross-border mergers & acquisitions by Chinese firms. *International Business Review*. 24(3): 430-442.
- Dutta, S; Jog, V. 2009. The long-term performance of acquiring firms: A re-examination of an anomaly. *Journal of Banking & Finance*. 33(8): 1400-1412.

- Ebneth, O; Theuvsen, L. 2007. Large mergers and acquisitions of European brewing groups - Event study evidence on value creation. *Agribusiness*. 23(3): 377-406.
- Eckbo, BE. 1992. Mergers and the Value Of Antitrust Deterrence. *Journal of Finance*. 47(3): 1005-1029.
- Elango, B; Pattnaik, C. 2011. Learning Before Making the Big Leap Acquisition Strategies of Emerging Market Firms. *Management International Review*. 51(4): 461-481.
- Ellis, JA; Moeller, SB; Schlingemann, FP; Stulz, RM. 2017. Portable country governance and cross border acquisitions. *Journal of International Business Studies*. 48(2): 148-173.
- Erickson, MM; Wang, SW. 2007. Tax benefits as a source of merger premiums in acquisitions of private corporations. *Accounting Review*. 82(2): 359-387.
- Eun, CS; Kolodny, R; Scheraga, C. 1996. Cross-border acquisitions and shareholder wealth: Tests of the synergy and internalization hypotheses. *Journal of Banking & Finance*. 20(9): 1559-1582.
- Feito-Ruiz, I; Menendez-Requejo, S. 2011. Cross-border Mergers and Acquisitions in different legal environments. *International Review of Law and Economics*. 31(3): 169-187.
- Ferrier, GD; Valdmanis, VG. 2004. Do mergers improve hospital productivity? *Journal of The Operational Research Society*. 55(10): 1071-1080.
- Ferris, SP; Houston, R; Javakhadze, D. 2016. Friends in the right places: The effect of political connections on corporate merger activity. *Journal of Corporate Finance*. 41(): 81-102.
- Fields, LP; Fraser, DR; Kolarl, JW. 2007. Bidder returns in bancassurance mergers: Is there evidence of synergy?. *Journal of Banking & Finance*. 31(12): 3646-3662.
- Fiorentino, R; Garzella, S. 2015. Synergy management pitfalls in mergers and acquisitions. *Management Decision*. 53(7): 1469-1503.
- Flanagan, DJ. 1996. Announcements of purely related and purely unrelated mergers and shareholder returns: Reconciling the relatedness paradox. *Journal of Management*. 22(6): 823-835.
- Fluck, Z; Lynch, AW. 1999. Why do firms merge and then divest? A theory of financial synergy. *Journal of Business*. 72(3): 319-346.
- Francis, BB; Hasan, I; Sun, X. 2008. Financial market integration and the value of global diversification: Evidence for US acquirers in cross-border mergers and acquisitions. *Journal of Banking & Finance*. 32(8): 1522-1540.
- Fridolfsson, SO; Stennek, J. 2005. Why mergers reduce profits and raise share prices - A theory of preemptive mergers. *Journal of The European Economic Association*. 3(5): 1083-1104.
- Froeb, L; Tschantz, S; Werden, GJ. 2005. Pass-through rates and the price effects of mergers. *International Journal of Industrial Organization*. 23(10-Sep): 703-715.
- Fu, FJ; Lin, LM; officer, MS. 2013. Acquisitions driven by stock overvaluation: Are they good deals? *Journal of Financial Economics*. 109(1): 24-39.
- Fulghieri, P; Hodrick, LS. 2006. Synergies and internal agency conflicts: The double-edged sword of mergers. *Journal of Economics & Management Strategy*. 15(3): 549-576.
- Fulghieri, P; Sevilir, M. 2011. Mergers, Spinoffs, and Employee Incentives. *Review of Financial Studies*. 24(7): 2207-2241.
- Ganzaroli, A; De Noni, I; Orsi, L; Belussi, F. 2016. The combined effect of technological relatedness and knowledge utilization on explorative and exploitative invention performance post-M&A. *European Journal of Innovation Management*. 19(2): 167-188.
- Gao, LS; Iyer, B. 2006. Analyzing complementarities using software stacks for software industry acquisitions. *Journal of Management Information Systems*. 23(2): 119-147.
- Garzella, S; Fiorentino, R. 2014. A synergy measurement model to support the pre-deal decision making in mergers and acquisitions. *Management Decision*. 52(6): 1194-1216.
- Gates, S; Very, P. 2003. Measuring performance during M&A integration. *Long Range Planning*. 36(2): 167-185.
- Ge, R; Lennox, C. 2011. Do acquirers disclose good news or withhold bad news when they finance their acquisitions using equity?. *Review of Accounting Studies*. 16(1): 183-217.
- Gorton, G; Kahl, M; Rosen, RJ. 2009. Eat or Be Eaten: A Theory of Mergers and Firm Size. *Journal of Finance*. 64(3): 1291-1344.

- Graebner, ME. 2004. Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Strategic Management Journal*. 25(9-Aug): 751-777.
- Grimpe, C; Hussinger, K. 2014. Resource Complementarity And Value Capture In Firm Acquisitions: The Role Of Intellectual Property Rights. *Strategic Management Journal*. 35(12): 1762-1780.
- Gu, F; Lev, B. 2011. Overpriced Shares, Ill-Advised Acquisitions, and Goodwill Impairment. *Accounting Review*. 86(6): 1995-2022.
- Gubbi, SR; Aulakh, PS; Ray, S; Sarkar, MB; Chittoor, R. 2010. Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies*. 41(3): 397-418.
- Gupta, A; LeCompte, RLB; Misra, L. 1997. Acquisitions of solvent thrifts: Wealth effects and managerial motivations. *Journal of Banking & Finance*. 21(10): 1431-1450.
- Gupta, D; Gerchak, Y. 2002. Quantifying operational synergies in a merger/acquisition. *Management Science*. 48(4): 517-533.
- Hackbarth, D; Miao, JJ. 2012. The dynamics of mergers and acquisitions in oligopolistic industries. *Journal of Economic Dynamics & Control*. 36(4): 585-609.
- Hagedoorn, J; Duysters, G. 2002. The effect of mergers and acquisitions on the technological performance of companies in a high-tech environment. *Technology Analysis & Strategic Management*. 14(1): 67-85.
- Hagendorff, J; Collins, M; Keasey, K. 2008. Investor protection and the value effects of bank merger announcements in Europe and the US. *Journal of Banking & Finance*. 32(7): 1333-1348.
- Hagendorff, J; Collins, M; Keasey, K. 2007. Bank governance and acquisition performance. *Corporate Governance-An International Review*. 15(5): 957-968.
- Hakkinen, L. 2005. Impacts of international mergers and acquisitions on the logistics operations of manufacturing companies. *International Journal of Technology Management*. 29(4-Mar): 362-385.
- Hansen, UE; Fold, N; Hansen, T. 2016. Upgrading to lead firm position via international acquisition: learning from the global biomass power plant industry. *Journal of Economic Geography*. 16(1): 131-153.
- Harford, J. 1999. Corporate cash reserves and acquisitions. *Journal of Finance*. 54(6): 1969-1997.
- Harford, J; Humphery-Jenner, M; Powell, R. 2012. The sources of value destruction in acquisitions by entrenched managers. *Journal of Financial Economics*. 106(2): 247-261.
- Hernandez, E; Menon, A. 2018. Acquisitions, Node Collapse, and Network Revolution. *Management Science*. 64(4): 1652-1671.
- Higgins, MJ; Rodriguez, D. 2006. The outsourcing of R&D through acquisitions in the pharmaceutical industry. *Journal of Financial Economics*. 80(2): 351-383.
- Hoberg, G; Phillips, G. 2010. Product Market Synergies and Competition in Mergers and Acquisitions: A Text-Based Analysis. *Review of Financial Studies*. 23(10): 3773-3811.
- Holmstrom, B; Kaplan, SN. 2001. Corporate governance and merger activity in the United States: Making sense of the 1980s and 1990s. *Journal of Economic Perspectives*. 15(2): 121-144.
- Homburg, F; Rost, K; Osterloh, M. 2009. Do synergies exist in related acquisitions? A meta-analysis of acquisition studies. *Review of Managerial Science*. 3(2): 75-116.
- Homburg, C; Bucerius, M. 2005. A marketing perspective on mergers and acquisitions: How marketing integration affects postmerger performance. *Journal of Marketing*. 69(1): 95-113.
- Hotchkiss, ES; Mooradian, RM. 1998. Acquisitions as a means of restructuring firms in chapter 11. *Journal of Financial Intermediation*. 7(3): 240-262.
- Houston, JF; James, CM; Ryngaert, MD. 2001. Where do merger gains come from? Bank mergers from the perspective of insiders and outsiders. *Journal of Financial Economics*. 60(3-Feb): 285-331.
- Houston, JF; Ryngaert, MD. 1994. The Overall Gains From Large Bank Mergers. *Journal of Banking & Finance*. 18(6): 1155-1176.
- Inderst, R; Wey, C. 2003. Bargaining, mergers, and technology choice in bilaterally oligopolistic industries. *Rand Journal of Economics*. 34(1): 1-19.

- Ishii, J; Xuan, YH. 2014. Acquirer-target social ties and merger outcomes. *Journal of Financial Economics*. 112(3): 344-363.
- James, AD; Georghiou, L; Metcalfe, JS. 1998. Integrating technology into merger and acquisition decision making. *Technovation*. 18(9-Aug): 563-573.
- Jeziorski, P. 2014. Estimation of cost efficiencies from mergers: application to US radio. *Rand Journal of Economics*. 45(4): 816-846.
- John, K; Knyazeva, A; Knyazeva, D. 2015. Employee rights and acquisitions. *Journal of Financial Economics*. 118(1): 49-69.
- Jones, G; Miskell, P. 2007. Acquisitions and firm growth: Creating Unilever's ice cream and tea business. *Business History*. 49(1): 8-28.
- Junni, P. 2011. Knowledge transfer in acquisitions: Fear of exploitation and contamination. *Scandinavian Journal of Management*. 27(3): 307-321.
- Junni, P; Sarala, RM; Tarba, SY; Weber, Y. 2015. The Role of Strategic Agility in Acquisitions. *British Journal of Management*. 26(4): 596-616.
- Kallunki, JP; Pyykko, E; Laamanen, T. 2009. Stock Market Valuation, Profitability and R&D Spending of the Firm: The Effect of Technology Mergers and Acquisitions. *Journal of Business Finance & Accounting*. 36(8-Jul): 838-862.
- Karim, S; Mitchell, W. 2000. Path-dependent and path-breaking change: Reconfiguring business resources following acquisitions in the US medical sector, 1978-1995. *Strategic Management Journal*. 21(11-Oct): 1061-1081.
- Karim, S; Mitchell, W. 2004. Innovating through acquisition and internal development: A quarter-century of boundary evolution at Johnson & Johnson. *Long Range Planning*. 37(6): 525-547.
- Kedia, S; Ravid, SA; Pons, V. 2011. When Do Vertical Mergers Create Value?. *Financial Management*. 40(4): 845-877.
- Keil, T; Laamanen, T; McGrath, RG. 2013. Is a Counterattack The Best Defense? *Competitive Dynamics Through Acquisitions*. *Long Range Planning*. 46(3): 195-215.
- Kiessling, T; Harvey, M. 2006. The human resource management issues during an acquisition: the target firm's top management team and key managers. *International Journal of Human Resource Management*. 17(7): 1307-1320.
- Kiessling, T; Harvey, M; Moeller, M. 2012. Supply-chain corporate venturing through acquisition: Key management team retention. *Journal of World Business*. 47(1): 81-92.
- Klein, PG. 2001. Were the acquisitive conglomerates inefficient?. *Rand Journal of Economics*. 32(4): 745-761.
- Kohli, R; Mann, BJS. 2012. Analyzing determinants of value creation in domestic and cross border acquisitions in India. *International Business Review*. 21(6): 998-1016.
- Krishnan, HA; Miller, A; Judge, WQ. 1997. Diversification and top management team complementarity: Is performance improved by merging similar or dissimilar teams?. *Strategic Management Journal*. 18(5): 361-374.
- Krishnan, HA; Park, D. 2002. The impact of work force reduction on subsequent performance in major mergers and acquisitions - An exploratory study. *Journal of Business Research*. 55(4): 285-292.
- Krug, JA; Wright, P; Kroll, MJ. 2014. Top Management Turnover Following Mergers And Acquisitions: Solid Research To Date But Still Much To Be Learned. *Academy of Management Perspectives*. 28(2): 147-163.
- Kumar, MVS. 2005. The value from acquiring and divesting a joint venture: A real options approach. *Strategic Management Journal*. 26(4): 321-331.
- Laamanen, T. 2007. On the role of acquisition premium in acquisition research. *Strategic Management Journal*. 28(13): 1359-1369.
- Lambrecht, BM. 2004. The timing and terms of mergers motivated by economies of scale. *Journal of Financial Economics*. 72(1): 41-62.
- Lau, RYK; Liao, SSY; Wong, KF; Chiu, DKW. 2012. Web 2.0 Environmental Scanning And Adaptive Decision Support For Business Mergers And Acquisitions. *MIS Quarterly*. 36(4): 1239-1268.

- Leeth, JD; Borg, JR. 2000. The impact of takeovers on shareholder wealth during the 1920s merger wave. *Journal of Financial and Quantitative Analysis*. 35(2): 217-238.
- Leger, PM; Quach, L. 2009. Post-merger performance in the software industry: The impact of characteristics of the software product portfolio. *Technovation*. 29(10): 704-713.
- Leland, HE. 2007. Financial synergies and the optimal scope of the firm: Implications for mergers, spinoffs, and structured finance. *Journal of Finance*. 62(2): 765-807.
- Levi, M; Li, K; Zhang, F. 2014. Director gender and mergers and acquisitions. *Journal of Corporate Finance*. 28(0): 185-200.
- Levine, O. 2017. Acquiring growth. *Journal of Financial Economics*. 126(2): 300-319.
- Li, D; Taylor, LA; Wang, WY. 2018. Inefficiencies and externalities from opportunistic acquirers. *Journal of Financial Economics*. 130(2): 265-290.
- Lin, BW; Hung, SC; Li, PC. 2006. Mergers and acquisitions as a human resource strategy - Evidence from US banking firms. *International Journal of Manpower*. 27(2): 126-142.
- Lin, C; officer, MS; Zou, H. 2011. Directors' and officers' liability insurance and acquisition outcomes. *Journal of Financial Economics*. 102(3): 507-525.
- Liu, QC; Patton, D; Kenney, M. 2018. Do university mergers create academic synergy? Evidence from China and the Nordic Countries. *Research Policy*. 47(1): 98-107.
- Lubatkin, M; Srinivasan, N; Merchant, H. 1997. Merger strategies and shareholder value during times of relaxed antitrust enforcement: The case of large mergers during the 1980s. *Journal of Management*. 23(1): 59-81.
- Ma, QZ; Whidbee, DA; Zhang, AW. 2011. Value, valuation, and the long-run performance of merged firms. *Journal of Corporate Finance*. 17(1): 1-17.
- Maksimovic, V; Phillips, G; Yang, L. 2013. Private and Public Merger Waves. *Journal of Finance*. 68(5): 2177-2217.
- Malmendier, U; Tate, G. 2008. Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*. 89(1): 20-43.
- Maquieira, CP; Megginson, WL; Nail, L. 1998. Wealth creation versus wealth redistributions in pure stock-for-stock mergers. *Journal of Financial Economics*. 48(1): 3-33.
- Margsiri, W; Mello, AS; Ruckes, ME. 2008. A Dynamic Analysis of Growth via Acquisition. *Review of Finance*. 12(4): 635-671.
- Markides, CC; Ittner, CD. 1994. Shareholder Benefits From Corporate International Diversification - Evidence From United-States International Acquisitions. *Journal of International Business Studies*. 25(2): 343-366.
- Martynova, M; Renneboog, L. 2008. Spillover of corporate governance standards in cross-border mergers and acquisitions. *Journal of Corporate Finance*. 14(3): 200-223.
- Masulis, RW; Wang, C; Xie, F. 2007. Corporate governance and acquirer returns. *Journal of Finance*. 62(4): 1851-1889.
- Matsusaka, JG. 1993. Takeover Motives During The Conglomerate Merger Wave. *Rand Journal of Economics*. 24(3): 357-379.
- McWilliams, A; Turk, TA; Zardkoohi, A. 1993. Antitrust Policy And Mergers - The Wealth Effect Of Supreme-Court Decisions. *Economic Inquiry*. 31(4): 517-533.
- Megginson, WL; Morgan, A; Nail, L. 2004. The determinants of positive long-term performance in strategic mergers: Corporate focus and cash. *Journal of Banking & Finance*. 28(3): 523-552.
- Melia-Marti, E; Martinez-Garcia, AM. 2015. Characterization And Analysis Of Cooperative Mergers And Their Results. *Annals of Public and Cooperative Economics*. 86(3): 479-504.
- Mescall, D; Klassen, KJ. 2018. How Does Transfer Pricing Risk Affect Premiums in Cross-Border Mergers and Acquisitions?. *Contemporary Accounting Research*. 35(2): 830-865.
- Miller, D; Le Breton-Miller, I; Lester, RH. 2010. Family Ownership And Acquisition Behavior In Publicly-Traded Companies. *Strategic Management Journal*. 31(2): 201-223.
- Mukherji, A; Mukherji, J; Dibrell, C; Francis, JD. 2013. Overbidding in cross-border acquisitions: Misperceptions in assessing and valuing knowledge. *Journal of World Business*. 48(1): 39-46.

- Nagurney, A. 2009. A system-optimization perspective for supply chain network integration: The horizontal merger case. *Transportation Research Part E-Logistics and Transportation Review*. 45(1): 1-15.
- Namvar, E; Phillips, B. 2013. Commonalities in investment strategy and the determinants of performance in mutual fund mergers. *Journal of Banking & Finance*. 37(2): 625-635.
- Nguyen, HT; Yung, K; Sun, Q. 2012. Motives for Mergers and Acquisitions: Ex-Post Market Evidence from the US. *Journal of Business Finance & Accounting*. 39(10-Sep): 1357-1375.
- Nguyen, SV; Ollinger, M. 2006. Mergers and acquisitions and productivity in the US meat products industries: Evidence from the micro data. *American Journal of Agricultural Economics*. 88(3): 606-616.
- Nicholson, RR; Salaber, J. 2013. The motives and performance of cross-border acquirers from emerging economies: Comparison between Chinese and Indian firms. *International Business Review*. 22(6): 963-980.
- Norman, G; Pepall, L; Richards, D. 2005. Product differentiation, cost-reducing mergers, and consumer welfare. *Canadian Journal of Economics-Revue Canadienne D Economique*. 38(4): 1204-1223.
- Oberg, C. 2014. Customer relationship challenges following international acquisitions. *International Marketing Review*. 31(3): 259-282.
- Officer, MS; Poulsen, AB; Stegemoller, M. 2009. Target-firm information asymmetry and acquirer returns. *Review of Finance*. 13(3): 467-493.
- Park, M. 2013. Understanding merger incentives and outcomes in the US mutual fund industry. *Journal of Banking & Finance*. 37(11): 4368-4380.
- Peltier, S. 2004. Mergers and acquisitions in the media industries: Were failures really unforeseeable?. *Journal of Media Economics*. 17(4): 261-278.
- Penas, MF; Unal, H. 2004. Gains in bank mergers: Evidence from the bond markets. *Journal of Financial Economics*. 74(1): 149-179.
- Rabier, MR. 2017. Acquisition Motives and the Distribution of Acquisition Performance. *Strategic Management Journal*. 38(13): 2666-2681.
- Rahman, M; Lambkin, M. 2015. Creating or destroying value through mergers and acquisitions: A marketing perspective. *Industrial Marketing Management*. 46(): 24-35.
- Rani, N; Yadav, SS; Jain, PK. 2015. Market response to internationalization strategies: Evidence from Indian cross-border acquisitions. *Iimb Management Review*. 27(2): 80-91.
- Ransbotham, S; Mitra, S. 2010. Target Age and the Acquisition of Innovation in High-Technology Industries. *Management Science*. 56(11): 2076-2093.
- Rao, VR; Yu, Y; Umashankar, N. 2016. Anticipated vs. Actual Synergy in Merger Partner Selection and Post-Merger Innovation. *Marketing Science*. 35(6): 934-952.
- Rheame, L; Bhabra, HS. 2008. Value creation in information-based industries through convergence: A study of US mergers and acquisitions between 1993 and 2005. *Information & Management*. 45(5): 304-311.
- Rogan, M; Greve, HR. 2015. Resource Dependence Dynamics: Partner Reactions to Mergers. *Organization Science*. 26(1): 239-255.
- Ruckman, K. 2005. Technology sourcing through acquisitions: evidence from the US drug industry. *Journal of International Business Studies*. 36(1): 89-103.
- Saboo, AR; Sharma, A; Chakravarty, A; Kumar, V. 2017. Influencing Acquisition Performance in High-Technology Industries: The Role of Innovation and Relational Overlap. *Journal of Marketing Research*. 54(2): 219-238.
- Saxton, T; Dollinger, M. 2004. Target reputation and appropriability: Picking and deploying resources in acquisitions. *Journal of Management*. 30(1): 123-147.
- Sears, J; Hoetker, G. 2014. Technological Overlap, Technological Capabilities, And Resource Recombination In Technological Acquisitions. *Strategic Management Journal*. 35(1): 48-67.

- Sedlacek, J; Valouch, P; Hyblova, E; Krizova, Z. 2014. Changes in Property and Ownership Structure of Companies as a Consequence of Mergers in the Czech Republic. *Inzinerine Ekonomika-Engineering Economics*. 25(2): 152-159.
- Servaes, H. 1996. The value of diversification during the conglomerate merger wave. *Journal of Finance*. 51(4): 1201-1225.
- Seth, A; Song, KP; Pettit, R. 2000. Synergy, managerialism or hubris? An empirical examination of motives for foreign acquisitions of US firms. *Journal of International Business Studies*. 31(3): 387-405.
- Seth, A; Song, KP; Pettit, RR. 2002. Value creation and destruction in cross-border acquisitions: An empirical analysis of foreign acquisitions of US firms. *Strategic Management Journal*. 23(10): 921-940.
- Shaver, JM. 2006. A paradox of synergy: Contagion and capacity effects in mergers and acquisitions. *Academy of Management Review*. 31(4): 962-976.
- Sheen, A. 2014. The Real Product Market Impact of Mergers. *Journal of Finance*. 69(6): 2651-2688.
- Sherman, HD; Rupert, TJ. 2006. Do bank mergers have hidden or foregone value? Realized and unrealized operating synergies in one bank merger. *European Journal of Operational Research*. 168(1): 253-268.
- Shin, SR; Han, J; Marhold, K; Kang, J. 2017. Reconfiguring the firm's core technological portfolio through open innovation: focusing on technological M&A. *Journal of Knowledge Management*. 21(3): 571-591.
- Slovin, MB; Sushka, ME. 1998. The economics of parent-subsidiary mergers: an empirical analysis. *Journal of Financial Economics*. 49(2): 255-279.
- Sorescu, AB; Chandy, RK; Prabhu, JC. 2007. Why some acquisitions do better than others: Product capital as a driver of long-term stock returns. *Journal of Marketing Research*. 44(1): 57-72.
- Spector, D. 2003. Horizontal mergers, entry, and efficiency defences. *International Journal of Industrial Organization*. 21(10): 1591-1600.
- Srai, JS; Bertoncej, A; Fleet, D; Gregory, M. 2010. An operations process framework for international M&A value creation. *European Journal of International Management*. 4(2-Jan): 3-29.
- Sudarsanam, S; Mahate, AA. 2006. Are friendly acquisitions too bad for shareholders and managers? Long-term value creation and top management turnover in hostile and friendly acquirers. *British Journal of Management*. 17(): S7-S30.
- Swaminathan, V; Groening, C; Mittal, V; Thomaz, F. 2014. How Achieving the Dual Goal of Customer Satisfaction and Efficiency in Mergers Affects a Firm's Long-Term Financial Performance. *Journal of Service Research*. 17(2): 182-194.
- Swaminathan, V; Murshed, F; Hulland, J. 2008. Value creation following merger and acquisition announcements: The role of strategic emphasis alignment. *Journal of Marketing Research*. 45(1): 33-47.
- Tanriverdi, H; Uysal, VB. 2011. Cross-Business Information Technology Integration and Acquirer Value Creation in Corporate Mergers and Acquisitions. *Information Systems Research*. 22(4): 703-720.
- Uhlenbruck, K; Hitt, MA; Semadeni, M. 2006. Market value effects of acquisitions involving Internet firms: a resource-based analysis. *Strategic Management Journal*. 27(10): 899-913.
- Uysal, VB. 2011. Deviation from the target capital structure and acquisition choices. *Journal of Financial Economics*. 102(3): 602-620.
- Valentini, G; Di Guardo, MC. 2012. M&A and the profile of inventive activity. *Strategic Organization*. 10(4): 384-405.
- Verge, T. 2010. Horizontal Mergers, Structural Remedies, and Consumer Welfare In a Cournot Oligopoly With Assets. *Journal of Industrial Economics*. 58(4): 723-741.
- Vermeulen, F. 2005. How acquisitions can revitalize companies. *Mit Sloan Management Review*. 46(4): 45.
- Walters, BA; Kroll, MJ; Wright, P. 2007. CEO tenure, boards of directors, and acquisition performance. *Journal of Business Research*. 60(4): 331-338.

- Wang, C; Xie, F. 2009. Corporate Governance Transfer and Synergistic Gains from Mergers and Acquisitions. *Review of Financial Studies*. 22(2): 829-858.
- Weber, Y; Tarba, SY; Bachar, ZR. 2011. Mergers and acquisitions performance paradox: the mediating role of integration approach. *European Journal of International Management*. 5(4): 373-393.
- Weir, C. 1997. Corporate governance, performance and take-overs: an empirical analysis of UK mergers. *Applied Economics*. 29(11): 1465-1475.
- Wiklund, J; Shepherd, DA. 2009. The Effectiveness of Alliances and Acquisitions: The Role of Resource Combination Activities. *Entrepreneurship Theory and Practice*. 33(1): 193-212.
- Wiles, MA; Morgan, NA; Rego, LL. 2012. The Effect of Brand Acquisition and Disposal on Stock Returns. *Journal of Marketing*. 76(1): 38-58.
- Wright, P; Kroll, M; Lado, A; van Ness, B. 2002. The structure of ownership and corporate acquisition strategies. *Strategic Management Journal*. 23(1): 41-53.
- Wulf, J. 2004. Do CEOs in mergers trade power for premium? Evidence from "mergers of equals". *Journal of Law Economics & Organization*. 20(1): 60-101.
- Yaghoubi, R; Yaghoubi, M; Locke, S; Gibb, J. 2016. Mergers and acquisitions: a review. Part 1. *Studies In Economics and Finance*. 33(1): 147-188.
- Yen, TY; Chou, S; Andre, P. 2013. Operating Performance of Emerging Market Acquirers: Corporate Governance Issues. *Emerging Markets Finance and Trade*. 49(): 5-19.
- Yook, KC. 2003. Larger return to cash acquisitions: Signaling effect or leverage effect?. *Journal of Business*. 76(3): 477-498.
- Yu, Y; Umashankar, N; Rao, VR. 2016. Choosing the right target: Relative preferences for resource similarity and complementarity in acquisition choice. *Strategic Management Journal*. 37(8): 1808-1825.
- Zaheer, A; Hernandez, E; Banerjee, S. 2010. Prior Alliances with Targets and Acquisition Performance in Knowledge-Intensive Industries. *Organization Science*. 21(5): 1072-1091.
- Zheng, N; Wei, YQ; Zhang, YB; Yang, JJ. 2016. In search of strategic assets through cross-border merger and acquisitions: Evidence from Chinese multinational enterprises in developed economies. *International Business Review*. 25(1): 177-186.
- Zhu, PC; Jog, V. 2012. Impact on Target Firm Risk-Return Characteristics of Domestic and Cross-Border Mergers and Acquisitions in Emerging Markets. *Emerging Markets Finance and Trade*. 48(4): 79-101.

APPENDIX 2: SYSTEMATIC REVIEW OF LITERATURE ON POST-MERGER INTEGRATION

We also conducted a systematic literature review of research on post-merger integration following the same methodology as for the review presented in Appendix 1. We initially searched the Web of Science database for papers written about mergers and acquisition (M&A), and then refined that search to only include papers that had something to do with post-merger integration. As such, the first step of our search was to identify papers that (a) included the derivatives “merg*”, “acqui*”, or “M&A” in their titles, (b) were written in the English language, (c) were articles and reviews (but not book reviews), and (d) were in the Web of Science categories of Business, Economics, Business Finance, and Management. The second step was to refine this search to only include papers about post-merger integration, which we did by specifying that the topic had to be “integration NOT vertical.” This allowed us to include papers about post-merger integration that might not have explicitly used those terms (e.g., the paper wrote about post-acquisition integration), but also to exclude papers that were about vertical integration. Although these parameters might leave out papers that discuss post-merger integration in terms other than the ones we used in our search, we believe that these parameters allowed us to capture papers that are relevant to this topic in the broadest possible sense (using other terms would have led to an unnecessarily broad or idiosyncratic set of results). Our search resulted in an initial set of 525 papers, which we used as the basis for future analyses.

Following Crossan and Apaydin (2010), we identified three groups of papers within this set of 525 papers: Group 1 consisted of reviews and meta-analyses; Group 2 consisted of highly-cited papers; and Group 3 consisted of recent papers (2016-2018). To identify the reviews and meta-analyses in Group 1, we restricted the above-described search in Web of Science to include only those with the words “review” or “meta” in the topic (title, keywords, and abstract) of the paper. This yielded a subset of 29 papers. Of these, only 10 of them were actually reviews or meta-analyses, which we determined by reading the abstracts of the 29 papers (the remaining 19 had conducted original research about post-merger integration). To construct the subsample of

highly-cited papers in Group 2, we identified 304 papers out of the initial sample of 525 papers that had at least five citations (the Web of Science criteria for “highly cited” articles). We carefully read the abstracts of these 304 papers and determined that 183 of them contributed in some way to theory development or theory testing. Five papers were excluded from this subset because they were already included in Group 1, leaving a final set of 178 papers in Group 2.

To construct the subsample of recent papers in Group 3 (which may not have had time to accumulate as many citations as those that were published earlier), we identified 157 papers that were published between 2016 and 2018, inclusive. Since we could not use citation count as a metric of quality for these papers, we identified those papers that were published in either (a) the top ten most cited journals that had published research on post-merger integration (listed in Table A2-1), or (b) the top 50 *Financial Times* journals. This left us with a subsample of 25 papers. Reassuringly, nine of the ten most cited journals that had published research on post-merger integration appeared in the list of the top 50 *Financial Times* journals and 8 of the 25 papers in this subset were already included in Group 2, reinforcing that our selection criteria for Group 3 actually captured high-quality papers. We read the abstracts of the 17 papers that were left after eliminating the duplicates from Group 2, and determined that 13 of them contributed to theory development or theory testing in some way.

We combined the 10 reviews and meta-analyses from Group 1, the 178 highly-cited papers from Group 2, and the 13 recent papers from Group 3 into a final sample of 201 papers. Table A2-2 presents a summary of our consideration set.

We read and analyzed the 201 papers that comprised our consideration set (see references for the full list). Figure A2-1 presents a graph of the number of papers published on the topic of post-merger integration over time. Figure A2-2 presents a breakdown of the 201 papers by the type of methodology that was employed. Close to three-quarters of the papers were theory development, case studies, or large-scale empirical analyses, with a roughly even split across those three categories. The remaining quarter of the papers was comprised of surveys, field work, and reviews or meta-analyses.

Finally, and perhaps most importantly, Figure A2-3 synthesizes the topics addressed in the 201 papers into an overarching view of the state of research on post-merger integration. There are three broad subject areas: the antecedents of post-merger integration, the outcomes of post-merger integration, and the process of post-merger integration. Each of these subject areas was subdivided into the specific topics that were analyzed in the papers. Within the subject of the antecedents of post-merger integration, the topic of cultural fit or distance (whether national or organizational or both) was by far the most represented, with 35 papers written on this topic. Within the subject of the post-merger integration process, the topics of cultural integration (18 papers) and human and task integration (13 papers) were by far the most represented. Within the subject of the outcomes of post-merger integration, the topic of firm performance was most represented (10 papers).

We also categorized the papers into which of five specific relationship they addressed: (1) the link between the antecedents and the outcomes of post-merger integration (37 papers); (2) the link between the antecedents of post-merger integration and the process of post-merger integration (15 papers); (3) the link between the process of post-merger integration and the outcomes of post-merger integration (92 papers); (4) the moderating role of the antecedents of post-merger integration on the relationship between the post-merger integration process and the outcomes of post-merger integration (8 papers); and (5) the moderating role of the post-merger integration process on the relationship between the antecedents and the outcomes of post-merger integration (19 papers). We provide a deeper evaluation and critique of these facts pertaining to the state of the literature on post-merger integration in the body of the paper, specifically in the section on “synergy lifecycles.”

Table A2-1
Top ten journals publishing research on post-merger integration

Source Title	Number of papers	% of most cited
<i>Strategic Management Journal</i>	18	15.5%
<i>Journal of International Business Studies</i>	10	8.0%
<i>Journal of Management Studies</i>	11	5.4%
<i>Journal of Marketing</i>	2	4.4%
<i>Academy of Management Journal</i>	3	4.1%
<i>Organization Studies</i>	9	3.9%
<i>Organization Science</i>	4	3.4%
<i>Journal of Management</i>	10	3.3%
<i>Human Relations</i>	5	3.0%
International Journal of Human Resource Management	19	2.8%

These journals had the most articles covering integration as a topic.

Titles in italics are part of the Top 50 *Financial Times* journals

Table A2-2
Number of papers in each group

Group	Initial Pool	Filtered	Abstract Analyzed	Less Duplicates
Group 1: Reviews and meta-analyses	29	29	10	10
Group 2: Highly cited papers	525	304	183	178
Group 3: Recent papers	157	25	17	13
Total				201

Figure A2-1
Growth in articles on post-merger integration

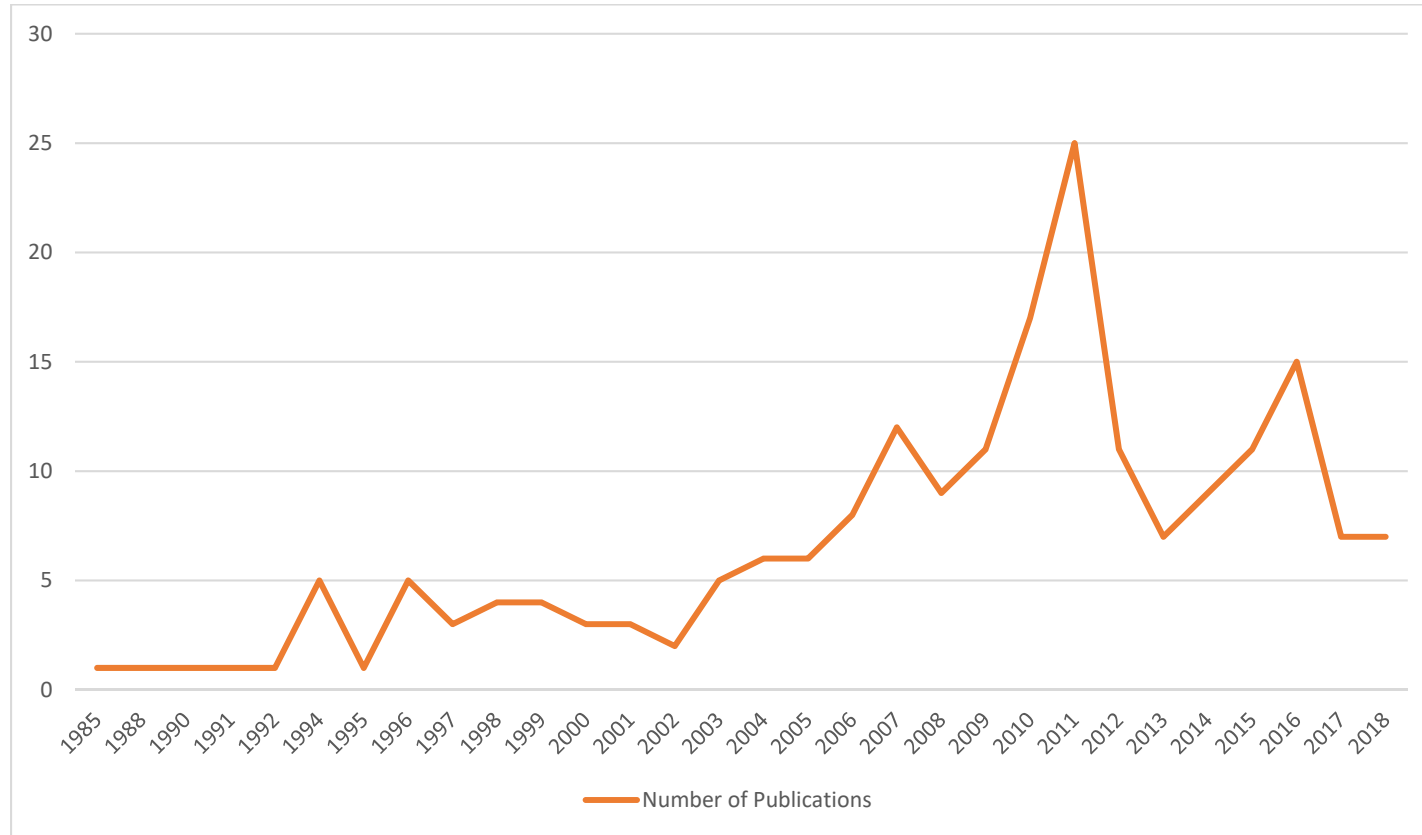


Figure A2-2
Methodologies used in articles on post-merger integration

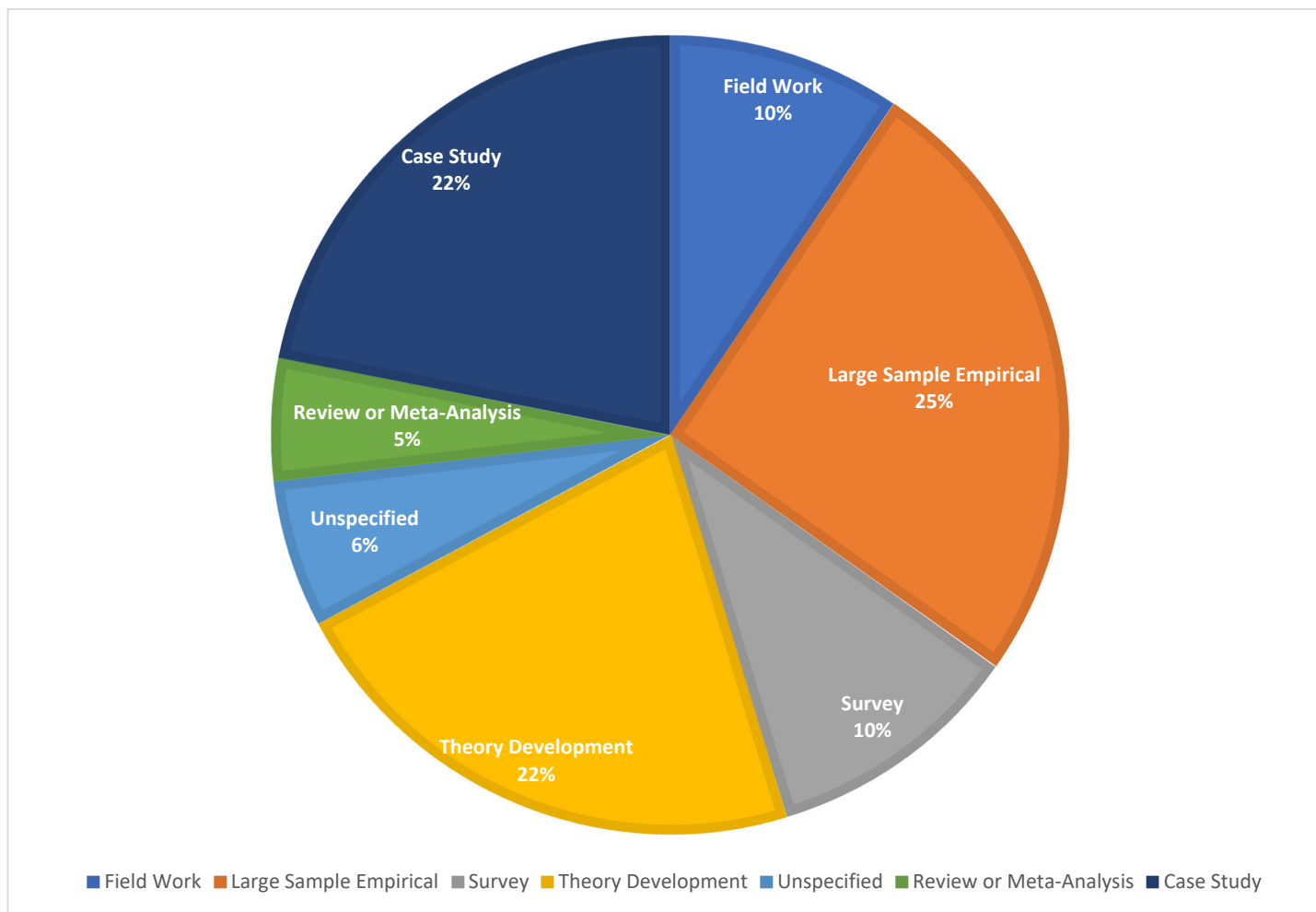
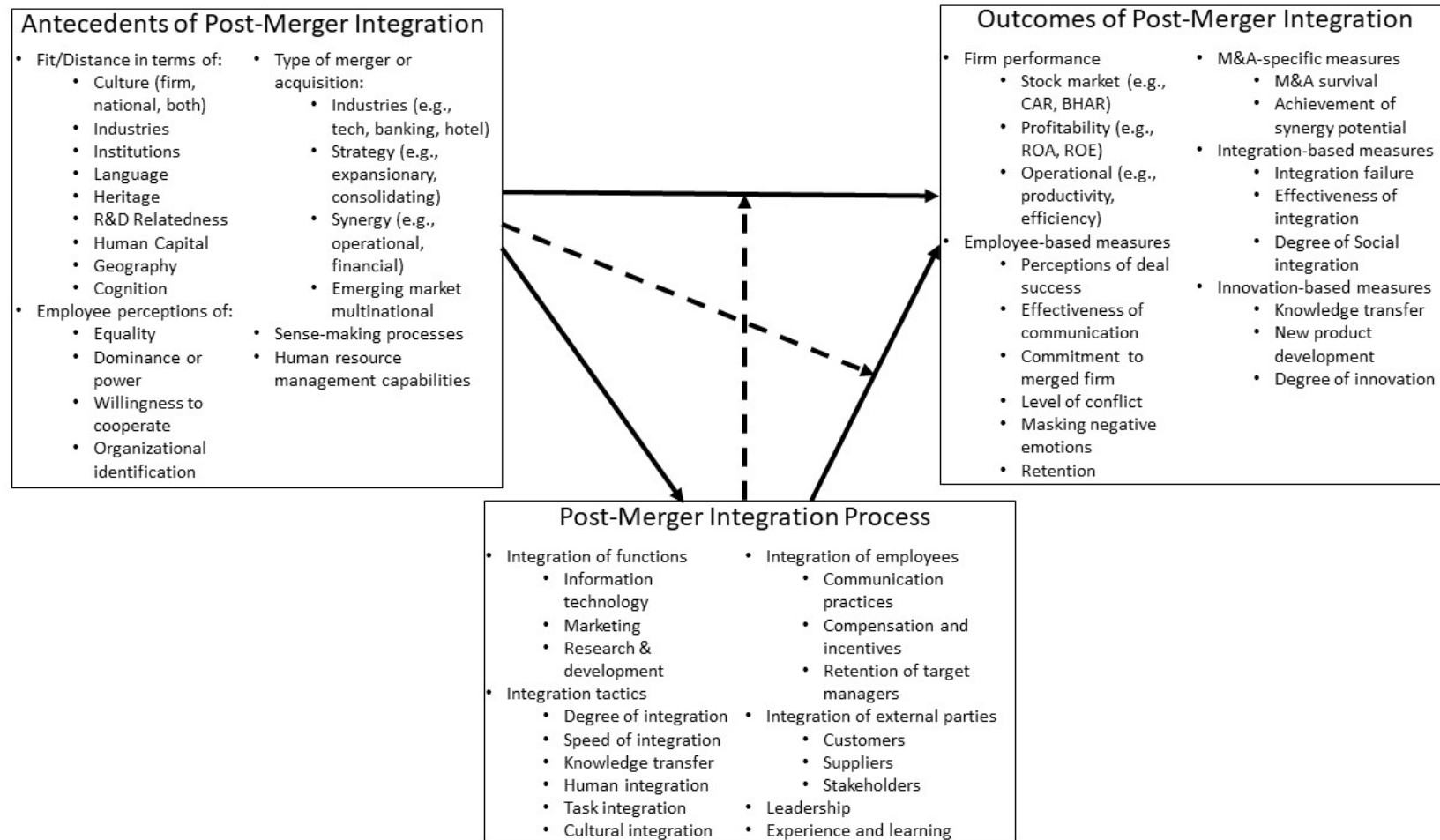


Figure A2-3
Synthesis of the state of research on post-merger integration in papers



REFERENCES: APPENDIX 2

- Aguilera, RV; Dencker, JC. 2004. The role of human resource management in cross-border mergers and acquisitions. *International Journal of Human Resource Management* 15(8): 1355-1370.
- Ahammad, MF; Glaister, KW. 2011. The double-edged effect of cultural distance on cross-border acquisition performance. *European Journal of International Management* 5(4): 327-345.
- Ahammad, MF; Glaister, KW; Weber, Y; Tarba, SY. 2012. Top management retention in cross-border acquisitions: the roles of financial incentives, acquirer's commitment and autonomy. *European Journal of International Management* 6(4): 458-480.
- Ahammad, MF; Tarba, SY; Liu, YP; Glaister, KW. 2016. Knowledge transfer and cross-border acquisition performance: The impact of cultural distance and employee retention. *International Business Review* 25(1): 66-75.
- Ahammad, MF; Tarba, SY; Liu, YP; Glaister, KW; Cooper, CL. 2016. Exploring the factors influencing the negotiation process in cross-border M&A. *International Business Review* 25(2): 445-457.
- Aklamanu, A; Degbey, WY; Tarba, SY. 2016. The role of HRM and social capital configuration for knowledge sharing in post-M&A integration: a framework for future empirical investigation. *International Journal of Human Resource Management* 27(22): 2790-2822.
- Al-Laham, A; Schweizer, L; Amburgey, TL. 2010. Dating before marriage? Analyzing the influence of pre-acquisition experience and target familiarity on acquisition success in the "M&A as R&D" type of acquisition. *Scandinavian Journal of Management* 26(1): 25-37.
- Allatta, JT; Singh, H. 2011. Evolving communication patterns in response to an acquisition event. *Strategic Management Journal* 32(10): 1099-1118.
- Ambrosini, V; Bowman, C; Schoenberg, R. 2011. Should acquiring firms pursue more than one value creation strategy? An empirical test of acquisition performance. *British Journal of Management* 22(1): 173-185.
- Anderson, H; Havila, V; Salmi, A. 2001. Can you buy a business relationship? On the importance of customer and supplier relationships in acquisitions. *Industrial Marketing Management* 30(7): 575-586.
- Angwin, DN; Meadows, M. 2009. The Choice of Insider or Outsider Top Executives in Acquired Companies. *Long Range Planning* 42(3): 359-389.
- Angwin, DN; Meadows, M. 2015. New Integration Strategies for Post-Acquisition Management. *Long Range Planning* 48(4): 235-251.
- Angwin, DN; Mellahi, K; Gomes, E; Peter, E. 2016. How communication approaches impact mergers and acquisitions outcomes. *International Journal of Human Resource Management* 27(20): 2370-2397.
- Ashkenas, RN; DeMonaco, LJ; Francis, SC. 1998. Making the deal real: How GE capital integrates acquisitions. *Harvard Business Review* 76(1): 165.
- Azan, W; Sutter, IH. 2010. Knowledge transfer in post-merger integration management: case study of a multinational healthcare company in Greece. *Knowledge Management Research & Practice* 8(4): 307-321.
- Baker, EW; Niederman, F. 2014. Integrating the IS functions after mergers and acquisitions: Analyzing business-IT alignment. *Journal of Strategic Information Systems* 23(2): 112-127.
- Bannert, V; Tschirky, H. 2004. Integration planning for technology intensive acquisitions. *R&D Management* 34(5): 481-494.
- Bansal, A. 2015. Understanding the integration mechanisms practiced during organizational change Evidence from five M&A transactions. *Journal of Organizational Change Management* 28(6): 929-947.
- Barmeyer, C; Mayrhofer, U. 2008. The contribution of intercultural management to the success of international mergers and acquisitions: An analysis of the EADS group. *International Business Review* 17(1): 28-38.
- Baroncelli, A. 1998. Telecom Italia: Merging five companies into one. *Long Range Planning* 31(3): 377-395.

- Bauer, F; Matzler, K. 2014. Antecedents of M & A Success: The Role of Strategic Complementarity, Cultural Fit, And Degree And Speed of Integration. *Strategic Management Journal* 35(2): 269-291.
- Bauer, F; Matzler, K; Wolf, S. 2016. M&A and innovation: The role of integration and cultural differences A central European targets perspective. *INTERNATIONAL BUSINESS REVIEW* 25(1): 76-86.
- Benitez, J; Ray, G; Henseler, J. 2018. Impact of Information Technology Infrastructure Flexibility On Mergers And Acquisitions. *MIS Quarterly* 42(1): 25.
- Bereskin, F; Byun, SK; officer, MS; Oh, JM. 2018. The Effect of Cultural Similarity on Mergers and Acquisitions: Evidence from Corporate Social Responsibility. *Journal of Financial And Quantitative Analysis* 53(5): 1995-2039.
- Bernad, C; Fuentelsaz, L; Gomez, J. 2010. The effect of mergers and acquisitions on productivity: An empirical application to Spanish banking. *Omega-International Journal of Management Science* 38(5): 283-293.
- Bertoncelj, A; Kovac, D. 2007. An integrated approach for a higher success rate in mergers and acquisitions. *Proceedings of Rijeka Faculty of Economics* 25(1): 167-188.
- Bettinazzi, ELM; Zollo, M. 2017. Stakeholder Orientation and Acquisition Performance. *Strategic Management Journal* 38(12): 2465-2485.
- Birkinshaw, J; Bresman, H; Hakanson, L. 2000. Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation. *Journal of Management Studies* 37(3): 395-425.
- Blake, RR; Mouton, JS. 1985. How To Achieve Integration On The Human Side of The Merger. *Organizational Dynamics* 13(3): 41-56.
- Bligh, MC. 2006. Surviving Post-merger 'Culture Clash': Can Cultural Leadership Lessen the Casualties?. *Leadership* 2(4): 395-426.
- Bramson, RN. 2000. HR's role in mergers and acquisitions. *Training & Development* 54(10): 59.
- Brannen, MY; Peterson, MF. 2009. Merging without alienating: interventions promoting cross-cultural organizational integration and their limitations. *Journal of International Business Studies* 40(3): 468-489.
- Briscoe, F; Tsai, WP. 2011. Overcoming Relational Inertia: How Organizational Members Respond to Acquisition Events in a Law Firm. *Administrative Science Quarterly* 56(3): 408-440.
- Brock, DM. 2005. Multinational acquisition integration: the role of national culture in creating synergies. *International Business Review* 14(3): 269-288.
- Brooks, I; Dawes, J. 1999. Merger as a trigger for cultural change in the retail financial services sector. *Service Industries Journal* 19(1): 194-206.
- Brueller, NN; Carmeli, A; Markman, GD. 2018. Linking Merger and Acquisition Strategies to Postmerger Integration: A Configurational Perspective of Human Resource Management. *Journal of Management* 44(5): 1793-1818.
- Buono, AF. 2003. SEAM-less post-merger integration strategies: a cause for concern. *Journal of Organizational Change Management* 16(1): 90-98.
- Burgelman, RA; mckinney, W. 2006. Managing the strategic dynamics of acquisition integration: Lessons from HP and Compaq. *California Management Review* 48(3): 6.
- Calori, R; Lubatkin, M; Very, P. 1994. Control Mechanisms In Cross-Border Acquisitions - An International Comparison. *Organization Studies* 15(3): 361-379.
- Canina, L; Kim, JY; Ma, QZ. 2010. What We Know about M&A Success A Research Agenda for the Lodging Industry. *Cornell Hospitality Quarterly* 51(1): 81-101.
- Chen, B; Krauskopf, J. 2013. Integrated or Disconnected? Examining Formal and Informal Networks in a Merged Nonprofit Organization. *Nonprofit Management & Leadership* 23(3): 325-345.
- Chen, CH; Chang, YY; Lin, MJJ. 2010. The performance impact of post-M&A interdepartmental integration: An empirical analysis. *Industrial Marketing Management* 39(7): 1150-1161.

- Choi, S; McNamara, G. 2018. Repeating a familiar pattern in a new way: The effect of exploitation and exploration on knowledge leverage behaviors in technology acquisitions. *Strategic Management Journal* 39(2): 356-378.
- Clark, SM; Gioia, DA; Ketchen, DJ; Thomas, JB. 2010. Transitional Identity as a Facilitator of Organizational Identity Change during a Merger. *Administrative Science Quarterly* 55(3): 397-438.
- Colman, HL; Lunnan, R. 2011. Organizational Identification and Serendipitous Value Creation in Post-Acquisition Integration. *Journal of Management* 37(3): 839-860.
- Colombo, G; Conca, V; Buongiorno, M; Gnan, L. 2007. Integrating cross-border acquisitions: A process-oriented approach. *Long Range Planning* 40(2): 202-222.
- Colombo, MG; Rabbiosi, L. 2014. Technological similarity, post-acquisition R&D reorganization, and innovation performance in horizontal acquisitions. *Research Policy* 43(6): 1039-1054.
- Cooke, FL; Huang, K. 2011. Postacquisition Evolution of The Appraisal And Reward Systems: A Study of Chinese It Firms Acquired By US Firms. *Human Resource Management* 50(6): 839-858.
- Cooke, FL; Wu, G; Zhou, J; Zhong, C; Wang, J. 2018. Acquiring global footprints: Internationalization strategy of Chinese multinational enterprises and human resource implications. *Journal of Business Research* 93: 184-201.
- Cording, M; Harrison, JS; Hoskisson, RE; Jonsen, K. 2014. Walking The Talk: A Multistakeholder Exploration of Organizational Authenticity, Employee Productivity, And Post-Merger Performance. *Academy of Management Perspectives* 28(1): 38-56.
- Dackert, I; Jackson, PR; Brenner, SO; Johansson, CR. 2003. Eliciting and analysing employees' expectations of a merger. *Human Relations* 56(6): 705-725.
- Dao, MA; Bauer, F; Strobl, A; Matzler, K; Eulerich, M. 2016. The complementing and facilitating nature of common ground in acquisitions - why task and human integration are still necessary in the presence of common ground. *International Journal of Human Resource Management* 27(20): 2505-2530.
- Datta, DK. 1991. Organizational Fit And Acquisition Performance - Effects of Postacquisition Integration. *Strategic Management Journal* 12(4): 281-297.
- Dauber, D. 2012. Opposing positions in M&A research: culture, integration and performance. *Cross Cultural Management-An International Journal* 19(3): 375-398.
- Denoble, AF; Gustafson, LT; Hergert, M. 1988. Planning For Post-Merger Integration - 8 Lessons For Merger Success. *Long Range Planning* 21(4): 82-85.
- Drori, I; Wrzesniewski, A; Ellis, S. 2011. Cultural Clashes In A "Merger of Equals": The Case of High-Tech Start-Ups. *Human Resource Management* 50(5): 625-649.
- Ellis, KM; Reus, TH; Lamont, BT; Ranft, AL. 2011. Transfer Effects In Large Acquisitions: How Size-Specific Experience Matters. *Academy of Management Journal* 54(6): 1261-1276.
- Elsass, PM; Veiga, JF. 1994. Acculturation In Acquired Organizations - A Force-Field Perspective. *Human Relations* 47(4): 431-453.
- Ensign, PC; Lin, CD; Chreim, S; Persaud, A. 2014. Proximity, knowledge transfer, and innovation in technology-based mergers and acquisitions. *International Journal of Technology Management* 66(1): 1-31.
- Epstein, MJ. 2004. The drivers of success in post-merger integration. *Organizational Dynamics* 33(2): 174-189.
- Fiorentino, R; Garzella, S. 2015. Synergy management pitfalls in mergers and acquisitions. *Management Decision* 53(7): 1469-1503.
- Friedman, Y; Carmeli, A; Tishler, A; Shimizu, K. 2016. Untangling micro-behavioral sources of failure in mergers and acquisitions: a theoretical integration and extension. *International Journal of Human Resource Management* 27(20): 2339-2369.
- Froese, FJ; Goeritz, LE. 2007. Integration management of Western acquisitions in Japan. *Asian Business & Management* 6(1): 95-114.
- Froese, FJ; Pak, YS; Chong, LC. 2008. Managing the human side of cross-border acquisitions in South Korea. *Journal of World Business* 43(1): 97-108.

- Gates, S; Very, P. 2003. Measuring performance during M&A integration. *Long Range Planning* 36(2): 167-185.
- Gerpott, TJ. 1995. Successful Integration of Research-And-Development Functions After Acquisitions - An Exploratory Empirical-Study. *R&D Management* 25(2): 161-178.
- Giacomazzi, F; Panella, C; Pernici, B; Sansoni, M. 1997. Information systems integration in mergers and acquisitions: A normative model. *Information & Management* 32(6): 289-302.
- Graebner, ME. 2004. Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Strategic Management Journal* 25(43686): 751-777.
- Grimpe, C. 2007. Successful product development after firm acquisitions: The role of research and development. *Journal of Product Innovation Management* 24(6): 614-628.
- Hagendorff, J; Keasey, K. 2009. Post-merger strategy and performance: evidence from the US and European banking industries. *Accounting And Finance* 49(4): 725-751.
- Hajro, A. 2015. Cultural influences and the mediating role of socio-cultural integration processes on the performance of cross-border mergers and acquisitions. *International Journal of Human Resource Management* 26(2): 192-215.
- Harwood, I. 2006. Confidentiality constraints within mergers and acquisitions: Gaining insights through a 'Bubble' metaphor. *British Journal of Management* 17(4): 347-359.
- Henningsson, S; Kettinger, WJ. 2016. Understanding Information Systems Integration Deficiencies in Mergers and Acquisitions: A Configurational Perspective. *Journal of Management Information Systems* 33(4): 942-977.
- Homburg, C; Bucerius, M. 2005. A marketing perspective on mergers and acquisitions: How marketing integration affects postmerger performance. *Journal of Marketing* 69(1): 95-113.
- Hsu, JM; Young, WJ; Wang, HY. 2012. Pre-IPO Acquirers' Issuance Cost and Long-Run Performance: Do Their M&A Disclosures Matter?. *Journal of Business Finance & Accounting* 39(43467): 141-164.
- Huang, Z; Zhu, H; Brass, DJ. 2017. Cross-Border Acquisitions And The Asymmetric Effect of Power Distance Value Difference On Long-Term Post-Acquisition Performance. *Strategic Management Journal* 38(4): 972-991.
- Hussinger, K. 2012. Absorptive capacity and post-acquisition inventor productivity. *Journal of Technology Transfer* 37(4): 490-507.
- Ingham, H; Kran, I; Lovestam, A. 1992. Mergers And Profitability - A Managerial Success Story. *Journal of Management Studies* 29(2): 195-208.
- Inkpen, AC; Sundaram, AK; Rockwood, K. 2000. Cross-border acquisitions of US technology assets. *California Management Review* 42(3): 50.
- James, AD. 2002. The strategic management of mergers and acquisitions in the pharmaceutical industry: Developing a resource-based perspective. *Technology Analysis & Strategic Management* 14(3): 299-313.
- Johnston, KD; Yetton, PW. 1996. Integrating information technology divisions in a bank merger - Fit, compatibility and models of change. *Journal of Strategic Information Systems* 5(3): 189-211.
- Jones, G; Miskell, P. 2007. Acquisitions and firm growth: Creating Unilever's ice cream and tea business. *Business History* 49(1): 8-28.
- Junni, P. 2011. Knowledge transfer in acquisitions: Fear of exploitation and contamination. *Scandinavian Journal of Management* 27(3): 307-321.
- Junni, P; Sarala, RM. 2011. Causal ambiguity, cultural integration and partner attractiveness as determinants of knowledge transfer: evidence from Finnish acquisitions. *European Journal of International Management* 5(4): 346-372.
- Kale, P; Singh, H; Raman, AP. 2009. Don't Integrate Your Acquisitions, Partner with Them. *Harvard Business Review* 87(12): 109.
- Kato, J; Schoenberg, R. 2014. The impact of post-merger integration on the customer-supplier relationship. *Industrial Marketing Management* 43(2): 335-345.
- Kiessling, T; Harvey, M; Moeller, M. 2012. Supply-chain corporate venturing through acquisition: Key management team retention. *Journal of World Business* 47(1): 81-92.

- Kihl, L; Shaw, S; Schull, V. 2013. Fear, Anxiety, and Loss of Control: Analyzing an Athletic Department Merger as a Gendered Political Process. *Journal of Sport Management* 27(2): 146-157.
- Kotabe, M; Jiang, CX; Murray, JY. 2011. Managerial ties, knowledge acquisition, realized absorptive capacity and new product market performance of emerging multinational companies: A case of China. *Journal of World Business* 46(2): 166-176.
- Kroon, DP; Cornelissen, JP; Vaara, E. 2015. Explaining Employees' Reactions towards a Cross-Border Merger: The Role of English Language Fluency. *Management International Review* 55(6): 775-800.
- Krug, JA; Wright, P; Kroll, MJ. 2014. Top Management Turnover Following Mergers And Acquisitions: Solid Research To Date But Still Much To Be Learned. *Academy of Management Perspectives* 28(2): 147-163.
- Lakshman, C. 2011. Postacquisition Cultural Integration In Mergers & Acquisitions: A Knowledge-Based Approach. *Human Resource Management* 50(5): 605-623.
- Larsson, R; Lubatkin, M. 2001. Achieving acculturation in mergers and acquisitions: An international case survey. *Human Relations* 54(12): 1573-1607.
- Lauser, B. 2010. Post-merger integration and change processes from a complexity perspective. *Baltic Journal of Management* 5(1): 6-27.
- Lee, CC; Wu, CC; Lee, HM. 2009. Factors that influence employees' organizational identity after M&A: The acquirer and acquired perspective. *African Journal of Business Management* 3(11): 695-704.
- Lee, J; Kim, M. 2016. Market-Driven Technological Innovation Through Acquisitions: The Moderating Effect of Firm Size. *Journal of Management* 42(7): 1934-1963.
- Lee, KH; Mauer, DC; Xu, EQ. 2018. Human capital relatedness and mergers and acquisitions. *Journal of Financial Economics* 129(1): 111-135.
- Lee, SJ; Kim, J; Park, BI. 2015. Culture clashes in cross-border mergers and acquisitions: A case study of Sweden's Volvo and South Korea's Samsung. *International Business Review* 24(4): 580-593.
- Lemieux, OP; Banks, JC. 2007. High tech M&A - strategic valuation. *Management Decision* 45(9): 1412-1425.
- Lubatkin, M; Calori, R; Very, P; Veiga, JF. 1998. Managing mergers across borders: A two-nation exploration of a nationally bound administrative heritage. *Organization Science* 9(6): 670-684.
- Lubatkin, M; Schweiger, D; Weber, Y. 1999. Top management turnover in related M & a's: An additional test of the theory of relative standing. *Journal of Management* 25(1): 55-73.
- Lupina-Wegener, AA. 2013. Human resource integration in subsidiary mergers and acquisitions Evidence from Poland. *Journal of Organizational Change Management* 26(2): 286-304.
- Lupina-Wegener, AA; Schneider, SC; van Dick, R. 2011. Different experiences of socio-cultural integration: a European merger in Mexico. *Journal of Organizational Change Management* 24(1): 65-89.
- Maire, S; Colletette, P. 2011. International post-merger integration: Lessons from an integration project in the private banking sector. *International Journal of Project Management* 29(3): 279-294.
- Margsiri, W; Mello, AS; Ruckes, ME. 2008. A Dynamic Analysis of Growth via Acquisition. *Review of Finance* 12(4): 635-671.
- Marks, ML. 1997. Consulting in mergers and acquisitions - Interventions spawned by recent trends. *Journal of Organizational Change Management* 10(3): 267.
- Marks, ML; Mirvis, PH. 2011. A Framework For The Human Resources Role In Managing Culture In Mergers And Acquisitions. *Human Resource Management* 50(6): 859-877.
- Marmenout, K. 2010. Employee Sensemaking in Mergers: How Deal Characteristics Shape Employee Attitudes. *Journal of Applied Behavioral Science* 46(3): 329-359.
- Marmenout, K. 2011. Peer Interaction In Mergers: Evidence of Collective Rumination. *Human Resource Management* 50(6): 783-808.
- Martinkenaite, I. 2012. Antecedents of knowledge transfer in acquisitions. *Baltic Journal of Management* 7(2): 167-184.
- Meglio, O; King, DR; Risberg, A. 2015. Improving Acquisition Outcomes with Contextual Ambidexterity. *Human Resource Management* 54: S29-S43.

- Melkonian, T; Monin, P; Noorderhaven, NG. 2011. Distributive Justice, Procedural Justice, Exemplarity, And Employees' Willingness To Cooperate In M&A Integration Processes: An Analysis of The Air France-KLM Merger. *Human Resource Management* 50(6): 809-837.
- Meyer, CB. 2008. Value leakages in mergers and acquisitions: Why they occur and how they can be addressed. *Long Range Planning* 41(2): 197-224.
- Meyer, CB; Altenborg, E. 2007. The disintegrating effects of equality: A study of a failed international merger. *British Journal of Management* 18(3): 257-271.
- Meyer, KE; Lieb-Doczy, E. 2003. Post-acquisition restructuring as evolutionary process. *Journal of Management Studies* 40(2): 459-482.
- Mialon, SH. 2008. Efficient horizontal mergers: The effects of internal capital reallocation and organizational form. *International Journal of Industrial Organization* 26(4): 861-877.
- Minbaeva, DB; Muratbekova-Touron, M. 2011. Experience of Canadian and Chinese acquisitions in Kazakhstan. *International Journal of Human Resource Management* 22(14): 2946-2964.
- Mirc, N; Rouzies, A; Teerikangas, S. 2017. Do Academics Actually Collaborate in the Study of Interdisciplinary Phenomena? A Look at Half a Century of Research on Mergers and Acquisitions. *European Management Review* 14(3): 333-357.
- Moore, F. 2011. Holistic ethnography: Studying the impact of multiple national identities on post-acquisition organizations. *Journal of International Business Studies* 42(5): 654-671.
- Morosini, P; Shane, S; Singh, H. 1998. National cultural distance and cross-border acquisition performance. *Journal of International Business Studies* 29(1): 137-158.
- Mtar, M. 2010. Institutional, Industry and Power Effects on Integration in Cross-border Acquisitions. *Organization Studies* 31(8): 1099-1127.
- Nemanich, LA; Keller, RT. 2007. Transformational leadership in an acquisition: A field study of employees. *Leadership Quarterly* 18(1): 49-68.
- Norburn, D; Schoenberg, R. 1994. European Cross-Border Acquisition - How Was It For You. *Long Range Planning* 27(4): 25-34.
- Oberg, C. 2014. Customer relationship challenges following international acquisitions. *International Marketing Review* 31(3): 259-282.
- Olie, R. 1994. Shades of Culture And Institutions In International Mergers. *Organization Studies* 15(3): 381-405.
- Ouimet, PP. 2013. What Motivates Minority Acquisitions? The Trade-offs between a Partial Equity Stake and Complete Integration. *Review of Financial Studies* 26(4): 1021-1047.
- PABLO, AL. 1994. Determinants of Acquisition Integration Level - A Decision-Making Perspective. *Academy of Management Journal* 37(4): 803-836.
- Pablo, AL; Sitkin, SB; Jemison, DB. 1996. Acquisition decision-making processes: The central role of risk. *Journal of Management* 22(5): 723-746.
- Palmatier, RW; Miao, CF; Fang, E. 2007. Sales channel integration after mergers and acquisitions: A methodological approach for avoiding common pitfalls. *Industrial Marketing Management* 36(5): 589-603.
- Papadakis, VM; Thanos, IC. 2010. Measuring the Performance of Acquisitions: An Empirical Investigation Using Multiple Criteria. *British Journal of Management* 21(4): 859-873.
- Piekkari, R; Vaara, E; Tienari, J; Santti, R. 2005. Integration or disintegration? Human resource implications of a common corporate language decision in a cross-border merger. *International Journal of Human Resource Management* 16(3): 330-344.
- Pioch, E. 2007. 'Business as usual?' - Retail employee perceptions of organizational life following cross-border acquisition. *International Journal of Human Resource Management* 18(2): 209-231.
- Porrini, P. 2004. Can a previous alliance between an acquirer and a target affect acquisition performance?. *Journal of Management* 30(4): 545-562.
- Puranam, P; Singh, H; Zollo, M. 2006. Organizing for innovation: Managing the coordination-autonomy dilemma in technology acquisitions. *Academy of Management Journal* 49(2): 263-280.

- Rabier, MR. 2017. Acquisition Motives and the Distribution of Acquisition Performance. *Strategic Management Journal* 38(13): 2666-2681.
- Rao-Nicholson, R; Khan, Z. 2017. Standardization versus adaptation of global marketing strategies in emerging market cross-border acquisitions. *International Marketing Review* 34(1): 138-158.
- Raukko, M. 2009. Organizational commitment during organizational changes A longitudinal case study on acquired key employees. *Baltic Journal of Management* 4(3): 331-352.
- Rees, C; Edwards, T. 2009. Management strategy and HR in international mergers: choice, constraint and pragmatism. *Human Resource Management Journal* 19(1): 24-39.
- Reus, TH. 2012. Culture's consequences for emotional attending during cross-border acquisition implementation. *Journal of World Business* 47(3): 342-351.
- Reus, TH; Lamont, BT. 2009. The double-edged sword of cultural distance in international acquisitions. *Journal of International Business Studies* 40(8): 1298-1316.
- Reus, TH; Lamont, BT; Ellis, KM. 2016. A darker side of knowledge transfer following international acquisitions. *Strategic Management Journal* 37(5): 932-944.
- Riad, S. 2005. The power of 'Organizational culture' as a discursive formation in merger integration. *Organization Studies* 26(10): 1529-1554.
- Riad, S. 2007. of mergers and cultures: "What happened to shared values and joint assumptions?". *Journal of Organizational Change Management* 20(1): 26-43.
- Robbins, SS; Stylianou, AC. 1999. Post-merger systems integration: the impact on IS capabilities. *Information & Management* 36(4): 205-212.
- Rottig, D. 2017. Meta-analyses of culture's consequences for acquisition performance An examination of statistical artifacts, methodological moderators and the context of emerging markets. *International Journal of Emerging Markets* 12(1): 8-37.
- Ruckman, K. 2008. Externally Sourcing Research through Acquisition: Should it Supplement or Substitute for Internal Research?. *Industry And Innovation* 15(6): 627-645.
- Sarala, RM. 2010. The impact of cultural differences and acculturation factors on post-acquisition conflict. *Scandinavian Journal of Management* 26(1): 38-56.
- Sarala, RM; Junni, P; Cooper, CL; Tarba, SY. 2016. A Sociocultural Perspective on Knowledge Transfer in Mergers and Acquisitions. *Journal of Management* 42(5): 1230-1249.
- Sarala, RM; Vaara, E. 2010. Cultural differences, convergence, and crossvergence as explanations of knowledge transfer in international acquisitions. *Journal of International Business Studies* 41(8): 1365-1390.
- Saunders, MNK; Altinay, L; Riordan, K. 2009. The management of post-merger cultural integration: implications from the hotel industry. *Service Industries Journal* 29(10): 1359-1375.
- Schoenberg, R. 2006. Measuring the performance of corporate acquisitions: An empirical comparison of alternative metrics. *British Journal of Management* 17(4): 361-370.
- Schweiger, DM; Goulet, PK. 2005. Facilitating acquisition integration through deep-level cultural learning interventions: A longitudinal field experiment. *Organization Studies* 26(10): 1477-1499.
- Schweizer, L; Patzelt, H. 2012. Employee commitment in the post-acquisition integration process: The effect of integration speed and leadership. *Scandinavian Journal of Management* 28(4): 298-310.
- Sen, F; Rubenstein, AH. 1990. An Exploration of Factors Affecting The Integration of In-House Research-And-Development With External Technology Acquisition Strategies of A Firm. *IEEE Transactions On Engineering Management* 37(4): 246-258.
- Sherman, HD; Rupert, TJ. 2006. Do bank mergers have hidden or foregone value? Realized and unrealized operating synergies in one bank merger. *European Journal of Operational Research* 168(1): 253-268.
- Shim, JB. 2011. Mergers & Acquisitions, Diversification and Performance in the US Property-Liability Insurance Industry. *Journal of Financial Services Research* 39(3): 119-144.
- Sinkovics, RR; Sinkovics, N; Lew, YK; Jedin, MH; Zagelmeyer, S. 2015. Antecedents of marketing integration in cross-border mergers and acquisitions Evidence from Malaysia and Indonesia. *International Marketing Review* 32(1): 2-28.

- Slangen, AHL. 2006. National cultural distance and initial foreign acquisition performance: The moderating effect of integration. *Journal of World Business* 41(2): 161-170.
- Slangen, AHL; Hennart, JF. 2008. Do foreign greenfields outperform foreign acquisitions or vice versa? An institutional perspective. *Journal of Management Studies* 45(7): 1301-1328.
- Smith, P; da Cunha, JV; Giangreco, A; Vasilaki, A; Carugati, A. 2013. The threat of dis-identification for HR practices: An ethnographic study of a merger. *European Management Journal* 31(3): 308-321.
- Spedale, S; Van Den Bosch, FAJ; Volberda, HW. 2007. Preservation and dissolution of the target firm's embedded ties in acquisitions. *Organization Studies* 28(8): 1169-1196.
- Spigarelli, F; Alon, I; Mucelli, A. 2015. Chinese M&A in Europe Emerging market multinational in the heavy construction industry. *Competitiveness Review* 25(4): 346.
- Srai, JS; Bertoncej, A; Fleet, D; Gregory, M. 2010. An operations process framework for international M&A value creation. *European Journal of International Management* 4: 3-29.
- Stahl, GK; Chua, CH; Pablo, AL. 2012. Does National Context Affect Target Firm Employees' Trust in Acquisitions? A Policy-Capturing Study. *Management International Review* 52(3): 395-423.
- Stahl, GK; Larsson, R; Kremershof, I; Sitkin, SB. 2011. Trust Dynamics In Acquisitions: A Case Survey. *Human Resource Management* 50(5): 575-603.
- Stylianou, AC; Jeffries, CJ; Robbins, SS. 1996. Corporate mergers and the problems of IS integration. *Information & Management* 31(4): 203-213.
- Syrjala, J; Takala, T. 2008. Ethical aspects in nordic business mergers: The case of electro-business. *Journal of Business Ethics* 80(3): 531-545.
- Tanriverdi, H; Uysal, VB. 2011. Cross-Business Information Technology Integration and Acquirer Value Creation in Corporate Mergers and Acquisitions. *Information Systems Research* 22(4): 703-720.
- Teerikangas, S; Very, P; Pisano, V. 2011. Integration Managers' Value-Capturing Roles And Acquisition Performance. *Human Resource Management* 50(5): 651-683.
- Tetenbaum, TJ. 1999. Beating the odds of merger & acquisition failure: Seven key practices that improve the chance for expected integration and synergies. *Organizational Dynamics* 28(2): 22-36.
- Thomson, N; McNamara, P. 2001. Achieving post-acquisition success: The role of corporate entrepreneurship. *Long Range Planning* 34(6): 669-697.
- Uzelac, B; Bauer, F; Matzler, K; Waschak, M. 2016. The moderating effects of decision-making preferences on M&A integration speed and performance. *International Journal of Human Resource Management* 27(20): 2436-2460.
- Vaara, E. 2003. Post-acquisition integration as sensemaking: Glimpses of ambiguity, confusion, hypocrisy, and politicization. *Journal of Management Studies* 40(4): 859-894.
- Vaara, E; Sarala, R; Stahl, GK; Bjorkman, I. 2012. The Impact of Organizational and National Cultural Differences on Social Conflict and Knowledge Transfer in International Acquisitions. *Journal of Management Studies* 49(1): 1-27.
- Vasilaki, A. 2011. Culture distance and cross-border acquisition performance: the moderating effect of transformational leadership. *European Journal of International Management* 5(4): 394-412.
- Vasilaki, A; Tarba, S; Ahammad, MF; Glaister, AJ. 2016. The moderating role of transformational leadership on HR practices in M&A integration. *International Journal of Human Resource Management* 27(20): 2488-2504.
- Verbeke, A. 2010. International acquisition success: Social community and dominant logic dimensions. *Journal of International Business Studies* 41(1): 38-46.
- Very, P; Lubatkin, M; Calori, R; Veiga, J. 1997. Relative standing and the performance of recently acquired European firms. *Strategic Management Journal* 18(8): 593-614.
- Vester, J. 2002. Lessons learned about integrating acquisitions. *Research-Technology Management* 45(3): 33-41.
- Vuori, N; Vuori, TO; Huy, QN. 2018. Emotional practices: how masking negative emotions impacts the post-acquisition integration process. *Strategic Management Journal* 39(3): 859-893.
- Waldman, DA; Javidan, M. 2009. Alternative forms of charismatic leadership in the integration of mergers and acquisitions. *Leadership Quarterly* 20(2): 130-142.

- Weber, Y. 1996. Corporate cultural fit and performance in mergers and acquisitions. *Human Relations* 49(9): 1181-1202.
- Weber, Y; Shenkar, O; Raveh, A. 1996. National and corporate cultural fit in mergers/acquisitions: An exploratory study. *Management Science* 42(8): 1215-1227.
- Weber, Y; Tarba, SY. 2010. Human resource practices and performance of mergers and acquisitions in Israel. *Human Resource Management Review* 20(3): 203-211.
- Weber, Y; Tarba, SY. 2012. Mergers and acquisitions process: the use of corporate culture analysis. *Cross Cultural Management-An International Journal* 19(3): 288-303.
- Weber, Y; Tarba, SY; Bachar, ZR. 2011. Mergers and acquisitions performance paradox: the mediating role of integration approach. *European Journal of International Management* 5(4): 373-393.
- Wei, T; Clegg, J. 2014. Successful integration of target firms in international acquisitions: A comparative study in the Medical Technology industry. *Journal of International Management* 20(2): 237-255.
- Wickramasinghe, V; Karunaratne, C. 2009. People management in mergers and acquisitions in Sri Lanka: employee perceptions. *International Journal of Human Resource Management* 20(3): 694-715.
- Wijnhoven, F; Spil, T; Stegwee, R; Fa, RTA. 2006. Post-merger IT integration strategies: An IT alignment perspective. *Journal of Strategic Information Systems* 15(1): 5-28.
- Worek, M. 2017. Mergers and acquisitions in family businesses: current literature and future insights. *Journal of Family Business Management* 7(2): 177-206.
- Xing, YJ; Liu, YP. 2016. Linking leaders' identity work and human resource management involvement: the case of sociocultural integration in Chinese mergers and acquisitions. *International Journal of Human Resource Management* 27(20): 2550-2577.
- Yahiaoui, D; Chebbi, H; Weber, Y. 2016. HR practices, context and knowledge transfer in M&A. *International Journal of Human Resource Management* 27(20): 2415-2435.
- Yetton, P; Henningsson, S; Bjorn-Andersen, N. 2013. Ready to Acquire: The IT Resources Required for a Growth-by-Acquisition Business Strategy. *MIS Quarterly Executive* 12(1): 19-35.
- Yu, JS; Engleman, RM; Van de Ven, AH. 2005. The integration journey: An attention-based view of the merger and acquisition integration process. *Organization Studies* 26(10): 1501-1528.
- Zaheer, A; Castaner, X; Souder, D. 2013. Synergy Sources, Target Autonomy, and Integration in Acquisitions. *Journal of Management* 39(3): 604-632.
- Zander, U; Zander, L. 2010. Opening the grey box: Social communities, knowledge and culture in acquisitions. *Journal of International Business Studies* 41(1): 27-37.
- Zhang, JL; Ahammad, MF; Tarba, S; Cooper, CL; Glaister, KW; Wang, JM. 2015. The effect of leadership style on talent retention during Merger and Acquisition integration: evidence from China. *International Journal of Human Resource Management* 26(7): 1021-1050.
- Zhang, YF; Fleet, D; Shi, YJ; Srari, JS; Gregory, M. 2010. Network integration for international mergers and acquisitions. *European Journal of International Management* 4: 56-78.
- Zhu, H; Xia, J; Makino, S. 2015. How do high-technology firms create value in international M&A? Integration, autonomy and cross-border contingencies. *Journal of World Business* 50(4): 718-728.
- Zollo, M; Singh, H. 2004. Deliberate learning in corporate acquisitions: Post-acquisition strategies and integration capability in US bank mergers. *Strategic Management Journal* 25(13): 1233-1256.
- Zou, H; Ghauri, PN. 2008. Learning through international acquisitions: The process of knowledge acquisition in China. *Management International Review* 48(2): 207-226.