A MATCH MADE IN HEAVEN:
THE INFLUENCE OF CROSS-COUNTRY DIFFERENCES IN CULTURAL
TIGHTNESS-LOoseness ON CROSS-BORDER ACQUISITION PERFORMANCE

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Abstract
Cross-border acquisitions (CBAs) have massively grown in volume worldwide over the past decades and have attracted frequent academic as well as media attention alike. While research about organizations has a rich history in examining culture’s impact on CBA performance, it has focused almost exclusively on cultural values and neglected other important aspects, namely social norms. Our study addresses this neglect and examines the impact of cultural tightness-looseness (TL)—which refers to the strength of social norms and the degree of sanctioning within societies—on CBA performance. We draw on cultural familiarity theory and hypothesize that TL differences influence the ability of firms to interact across different levels of the merging organizations and, in so doing, hamper the post-deal performance of CBAs. Taking a culture by context perspective that focuses on when cultural differences are most pronounced, we further propose a number of moderators of the TL-CBA relationship, including the direction of TL differences, the absolute level of tightness, industry relatedness, and membership in high-tech industries. Using data for 4,717 CBAs in 30 countries between 1989 and 2013, we find that cross-country differences in TL negatively influence acquirers’ return on assets (ROA) and that this influence is strengthened by the direction of TL, absolute level of tightness, and membership in high-tech industries, above and beyond cultural values differences. Theoretical and practical implications are discussed.

Keywords: cultural tightness-looseness (TL); cross-border acquisitions; post-deal performance; cultural familiarity theory; culture by context
INTRODUCTION

Increased globalization over the past decades has provided many new opportunities for multinational enterprises (MNEs) to expand and has triggered an exponential growth of global cross-border acquisitions (CBAs) (Dikova, Sahib, & Van Witteloostuijn, 2010; Erel, Liao, & Weisbach, 2012). While CBAs are appealing to firms for several reasons—such as the possibility to gain access to foreign markets and unique resources (Makino, Lau, & Yeh, 2002; Mulherin, Netter, & Poulsen, 2017)—they also pose significant challenges to the merging organizations and often end in failure with devastating economic consequences for the stakeholders involved (Child, Faulkner, & Pitkethly, 2001; Seth, Song, & Pettit, 2002).

Indeed, examples of great successes and dismal CBA failures have both captured media attention: The takeovers of British electronics firm Racal Electronics PLC by French defense contractor Thomson CSF in 2000 and Belgian firm Solvay Pharmaceuticals by American health care company Abbott Laboratories in 2009 are examples of successful international M&As that have generated significant value for the acquiring firms (Forbes 2009, Wall Street Journal 2000). By contrast, the acquisitions of Dutch Parenco’s mills by Norwegian pulp and paper company Norske Skog in 2001 and Australian beauty brand Jurlique International by Japanese cosmetics maker Pola Orbis in 2011 have destroyed shareholder value on a massive scale and have led to layoffs, billions in writedowns, and, in the case of Norske Skog, the reselling of the target at a much lower price (De Gelderlander, 2014; Financial Times, 2011).

This begs the question: What are the key drivers of success or failure of CBAs?

In this article, we examine the role of culture in CBA performance. While cultural differences are rampant in CBAs and have been argued to be a contributing factor to the success or failure of CBAs (Datta & Puia, 1995; Markides & Ittner, 1994; Morosini, Shane, & Singh, 1998; Rottig & Reus, 2018; Van den Steen, 2010; Weber, Shenkar, & Raveh, 1996), the literature has focused almost exclusively on cultural values to the exclusion of other aspects of culture, namely social norms (Leung & Morris, 2015; Shenkar, 2001). Social norms
refer to the informal rules that govern behavior in groups and societies (Bicchieri, Muldoon, & Sontuoso, 2018) and, unlike values that locate the source of culture’s influence in an individual’s subjective beliefs, norms locate culture’s influence in the surrounding group, thus, becoming particularly salient in intergroup settings, such as M&As (Leung & Morris, 2015). Social norms have received extensive scholarly attention from various scientific disciplines such as anthropology (Geertz, 1973), psychology (Sherif, 1936), sociology (Parsons, 1951), and economics (Akerlof, 1976), among others. A fundamental difference in social norms is how strictly groups adhere to them, also referred to as cultural tightness-looseness (TL) (Chua, Roth, & Lemoine, 2015; Rabl, Jayasinghe, Gerhart, & Kühlmann, 2014; Gelfand, Nishii, & Raver, 2006; Gelfand et al., 2011; Shin, Hasse, & Schotter, 2017; Taras, Kirkman, & Steel, 2010). While tight groups have strongly defined norms and little tolerance for deviance from them, loose groups have weakly defined norms and a high tolerance for deviance (Gelfand et al., 2011). Recent research has shown the importance of TL for a wide range of phenomena, from organizational leadership to HR practices to expatriation success among other topics (see Gelfand, Harrington, and Jackson [2017a] for a review), yet it has yet to be applied to the study of CBA performance.

Our work integrates the norms-based TL concept with international M&A research and predicts that differences in TL hamper the performance of CBAs. While there has been no large scale systematic investigation of TL’s impact on CBAs, there is abundant anecdotal evidence regarding M&A failures resulting from TL differences. For example, DaimlerChrysler is a prominent M&A of two firms, Daimler and Chrysler, from two home countries, Germany and U.S.A., respectively, that differ in TL. While Daimler has its roots in the tight German culture and has developed top-down, heavily managed, and hierarchical structures devoted to precision, Chrysler, much like its country of origin, U.S.A., possessed a relaxed, freewheeling, and egalitarian business culture (Gelfand, Gordon, Li, Choi, & Prokopowicz, 2018). The two cultures collided upon merger. Whereas the German Daimler
employees and managers wanted thick files of prep work and strict agendas for their meetings, their American counterparts preferred unstructured conversations and treated meetings as brainstorming sessions. As a result, trust between the two (previously autonomous) organizations eroded, employee morale suffered, and stock price declined, leading to a breakup after nine years of unsuccessful attempts to make things work.

In what follows, we draw on the cultural familiarity hypothesis to theorize how differences in culture can become an important source of conflict and inefficiency during M&As. We then discuss historical and contemporary research on TL and its implications for societal and organizational outcomes. Building on this discussion, we introduce a culture by context perspective (Gelfand, Aycan, Erez, & Leung, 2017b) to theorize on precisely when TL will exert the most negative impact on CBA performance, including how the direction of TL differences, the level of TL of the acquirer and target countries, industry relatedness between acquiring and target firms, and the merging firms’ membership in high-tech industries are critical moderators of the TL-CBA relationship. We then test the hypotheses based on an extensive dataset that comprises 4,717 CBAs in 30 countries between 1989 and 2013 and we find that differences in TL significantly affect the performance of CBAs, above and beyond cultural values differences, and that this effect is moderated by the direction of TL differences, the level of tightness, and membership in high-tech industry (Figure 1).

Our study seeks to make theoretical contributions to cross-cultural and international M&A research by integrating TL with the international management field. While TL has been linked to managerial phenomena such as CEO discretion (Crossland & Hambrick, 2011), stock price synchronicity (Eun, Wang, & Xiao, 2015), leadership styles (Aktas, Gelfand, & Hanges, 2016), and high performance work systems (Rabl et al., 2014) and has been useful to differentiate nations (Gelfand et al., 2011), states (Harrington, Boski, & Gelfand, 2015), and social class (Harrington & Gelfand, 2018), including election outcomes (Gelfand, Jackson, &
Harrington, 2016), we are the first, to our knowledge, to study its influence on CBAs. In so doing, we are able to demonstrate the usefulness of the TL approach in explaining organizational outcomes, directly responding to calls for alternative cultural conceptualizations beyond cultural values that help advance the current state of cultural frameworks in management research (Gelfand, Erez, & Aycan, 2007; Leung & Morris, 2015; Shenkar, 2001; Tsui, Nifadkar, & Ou, 2007; Zaheer, Schomaker, & Nachum, 2012), and more generally establish TL as an important variable in international management research that warrants further investigation.

Our work also has implications for cultural familiarity theory, which suggests that firms are less likely to enter culturally distant countries and perform worse when they do (Datta & Puia, 1995; Li, Brodbeck, Shenkar, Ponzi, & Fisch, 2017; Miller & Parkhe, 2002; Yoshino, 1976). Yet, our work helps refine and broaden the theory through the inclusion of a culture by context perspective, which seeks to identify when cultural differences in TL are most pronounced in cross-border M&A performance. In particular, we demonstrate that the direction of culture and its absolute level can fundamentally affect the influence of cultural differences in international transactions. In so doing, we complement cultural familiarity’s basic premise that centers on cultural differences and extend it to include directionality and absolute level of culture (Lee, Shenkar, & Li, 2008). We also show that culture’s impact largely depends on the type of interaction/ tasks performed by the firms involved. As interaction between organizations in high-tech industries needs to occur more frequently/intensely, the merging firms will be particularly exposed to the potential negativities of TL differences. By focusing on cultural dynamics, rather than merely cultural main effects, our work helps to understand precisely when cultural familiarity is more or less important, which is important for both theory and for practice.
THEORY AND HYPOTHESES

Cross-Border Acquisitions

Cross-border acquisition (CBA) is an important foreign expansion mode during which a firm (the acquirer) obtains ownership of a foreign firm (the target) (Erel et al., 2012; Rossi & Volpin, 2004). Acquirers have different motives for CBAs that include increase in market power, redeployment of assets, exploitation of technical knowledge, and spreading of risks, among many others (Makino et al., 2002; Mulherin et al., 2017). Prior work consistently shows that the combined firm’s ability to interact smoothly, blend operations, and establish and agree on common goals, processes, and structures of two previously autonomous firms crucially influences the performance and success of acquisitions (Birkinshaw, Bresman, & Hakanson, 2000; Buono & Bowditch, 2003). While many factors affect the ability of firms to cooperate with each other and blend their operations in the context of CBAs, national culture can play a significant role, as it determines the behaviors, practices, and routines of its organizational members and the way these individuals interact during the M&A process (Cartwright & Cooper, 1996; Stahl & Voigt, 2008).

Cultural familiarity theory suggests that MNEs will show inferior performance when they operate in culturally distant locations, as firms suffer from conflict and discord that result from unfamiliarity with the foreign culture, undermining CBA outcomes (Datta & Puia, 1995; Huang, Zhu, & Brass, 2017; Li et al., 2017; Miller & Parkhe 2002). That is, firms encounter greater difficulties and incur additional costs when operating in cultural environments that are dissimilar to their own due to unfamiliarity with a host environment (Lee et al., 2008). In particular, they lack knowledge on how to conduct business in the unfamiliar environment (Zaheer & Mosakowski, 1997) that obstructs the flow of knowledge and creates a liability of foreignness (Nachum, 2003). The more divergent behavioral patterns, norms, and practices are between nations, the more challenges MNEs will face abroad (Stahl & Voigt, 2008). While the intuitive cultural familiarity hypothesis has been frequently applied, previous
research has almost exclusively focused on cultural values, neglecting other important aspects of culture, in particular the strength of social norms (Shenkar, 2001; Shin et al., 2017). As a result, scholars have called for new ways of understanding how culture affects CBA performance (Huang et al., 2017; Li et al., 2017; Shenkar 2001). We respond to this call through the study of TL’s role in CBAs, a norms-based cultural variation that becomes particularly salient in intergroup settings such as M&As (Leung & Morris, 2015).

**Cultural Tightness-Looseness**

TL of a society consists of the strength, clarity, and pervasiveness of social norms within societies, and the amount of sanctioning and tolerance for deviance from social norms (Gelfand et al., 2006/2011). Tight societies, such as India, Japan, and Turkey, have strong norms and little tolerance for deviance from norms. Loose societies, such as Israel, the Netherlands, and New Zealand, have weaker norms and a high tolerance for deviance from norms. While the concept of TL has been examined in the context of traditional societies (Pelto, 1968; Triandis, 1989), it has only more recently been explored and quantified for a large number of modern societies (Gelfand et al., 2011) and has begun to be integrated into management research (e.g., Chua et al., 2015; Rabl et al., 2014; Roos, Gelfand, Nau, & Lun, 2015; Shin et al., 2017; Taras et al., 2010).

Extant work not only illustrates cross-national variation in society, but also *why* such differences tend to evolve. Gelfand et al. (2011) found that societies with more natural disasters, higher disease prevalence, fewer natural resources, and greater threat from territorial invasions develop stronger norms and sanction—which they argued is adaptive to help groups coordinate to survive such threats. By contrast, societies that lack exposure to serious ecological threats can afford to have weaker norms and tolerance for deviance given that they have less need for coordinated social action. Research has also found that tight states in the U.S. have much more ecological and historical threat as compared to loose states (Harrington & Gelfand, 2015), and threat also explains variation in traditional societies dating back
hundreds of years (Jackson et al., 2017). More recent computer simulations have illustrated that threat indeed causes the evolution of tightness (Roos et al., 2015).

Prior studies reveal that tight and loose cultures each have strengths and liabilities. Tight cultures tend to have more order (e.g., less crime), less social disorganization (e.g., less mobility and divorce), and less self-regulation problems (e.g., lower alcoholism and drug abuse) while loose cultures have less order, are more disorganized, and face self-regulation problems to a greater extent (Gelfand et al., 2011; Harrington & Gelfand, 2014). At the same time, loose cultures are less ethnocentric, more creative, and more open to change than tight cultures (Gelfand et al., 2011). These general signatures have been found across different levels of analysis, from the nation (Gelfand et al., 2011) to the state (Harrington & Gelfand, 2014) to the neurobiological level (Mu, Kitayama, Han, & Gelfand, 2015).

With respect to organizations, previous research has theorized that TL influences organizational cultures and practices (Gerhart, 2009; Lee & Kramer, 2016). While organizations in tight cultures emphasize rules and predictability that foster control and stability, organizations in loose cultures tend to emphasize flexibility and experimentation that encourage innovation (Gelfand et al., 2006). As a result, organizations in tight cultures tend to have stronger and more intensive training practices that convey organizational standards and have more well-developed performance-monitoring systems (Gelfand et al., 2006). In contrast, organizations in loose cultures have weaker training practices and performance-monitoring systems that occur less frequently and are more lenient toward employees that violate organizational standards (Rabl et al., 2014). In summary, TL depicts a multilevel system with tight cultures that have more constraint at all levels compared to more flexibility found in loose cultures.

TL also affects the leadership of firms in a number of important ways. For example, CEO discretion, i.e. the latitude of managerial action, differs systematically between tight and loose cultures (Crossland & Hambrick, 2011). While CEOs in tight cultures have less
managerial discretion, much more strategic leeway is available to CEOs in loose cultures (Crossland & Hambrick, 2011). People have different expectations regarding what constitutes effective leadership in tight and loose cultures (Aktas et al., 2016). Whereas individuals in tight cultures prefer autonomous/ independent leaders, people in loose cultures favor charismatic leaders who challenge the status quo. Further, individuals and employees treat norm violations of their leaders differently. While leaders who violate norms are tolerated in loose cultures, they are seen more negatively in tight cultures (Stamkou et al., 2016).

Finally, a society’s TL also affects the psychological attributes of its organizations’ individual members. Previous work finds that individuals in tight cultures have more prevention focus, more self-monitoring, and higher impulse control, whereas individuals in loose cultures tend to have less prevention focus, less self-monitoring, and lower impulse control (Gelfand et al., 2011). At the same time, individuals in tight cultures possess higher levels of ethnocentrism and less tolerance of people who are different compared to individuals in loose cultures (Gelfand et al., 2011). Neuroscience research has even shown that individuals in tight cultures notice norm violations much more strongly than those in loose cultures and that this neural activity positively relates to their self-control and ethnocentrism and negatively relates to their creativity (Mu et al., 2015).

Importantly, TL is also distinct from, albeit related to, cultural values dimensions (see Gelfand et al. [2006] for a conceptual discussion of the differences between TL and cultural values dimensions and Gelfand et al. [2011] for empirical evidence). For example, TL differs from individualism–collectivism, which refers to the degree to which societies emphasize having strong ties to in-groups versus being autonomous and looking after oneself (Chan, Gelfand, Triandis, & Tzeng, 1996; Hofstede, 2001; Triandis, 1989), but does not refer to how pervasive social norms are or how much tolerance there is for deviance from them. Indeed, there are cultures that are collectivistic and loose (e.g., Brazil), collectivistic and tight (e.g., Japan), individualistic and loose (e.g., the United States), and individualistic and tight (e.g.,
Germany) (Gelfand et al., 2006). TL is also distinct from uncertainty avoidance, i.e. the stress experienced in a society in the face of an unknown future (Hofstede, 2001). While tight societies may be more uncertainty avoiding, e.g., with many clear norms that help reduce/remove stress resulting from uncertainty, the opposite may also be true, e.g., if experimenting and developing new ideas with uncertain outcomes are encouraged in a tight society that scores low on uncertainty avoidance. Singapore, for instance, is a tight society that scores very low on uncertainty avoidance (Hofstede, 2001). TL is also distinct from power distance, which refers to the extent to which power is distributed equally in societies (Hofstede, 2001; Ng, Koh, Ang, Kennedy, & Chan, 2011), as strong norms and sanctioning may be reinforced and sustained in societies that have greater inequality (power distance), but also in societies that have lower inequality (power distance) (Gelfand et al., 2006).

**Impact of Cultural Tightness-Looseness Differences on Cross-Border Acquisition Performance**

When firms from cultures that differ greatly in TL merge during CBAs, there is potential for conflict and inefficiency. Differences in organizational routines, processes, and practices across tight and loose cultures can prove problematic in CBAs as they vary fundamentally on their emphasis on control and stability versus flexibility and experimentation. Firm leaders also differ in their approach of how to properly manage organizations, with leaders from tight cultures wanting to exert more top down control and leaders from loose cultures being more comfortable with shared leadership. Accordingly, when managers from countries that greatly differ in TL interact, they will differ in their opinions about how much change should be implemented, how much creativity is tolerated or encouraged, and how predictable routines and processes need to be in the merged organization. These disagreements can result in low morale or departure of managers (Hambrick & Cannella, 1993; Sung, Woehler, Fagan, Grosser, Floyd, & Labianca, 2017). Moreover, employees’ expectations toward the other firms’ leaders and members differ systematically between the merging firms. When managers
of one firm take leadership roles in the other firm after the acquisition announcement, conflicts likely occur as employees’ expectations are incompatible with leadership styles that are typical in tight versus loose cultures (Aktas et al., 2016). Similarly, employees’ expectations toward the other firms’ employees, i.e. their degree of prevention versus promotion focus as well as emphasis on self-regulation, are theorized to differ between the merging firms, generating increased friction due to different expectations of how to handle everyday situations (Shenkar, Luo, & Yeheskel, 2008).

In summary, when firms from cultures that greatly differ in TL interact during CBAs, they invariably will encounter difficulty merging into one organization, given that they have very different worldviews and practices across multiple organizational levels that result from deeply engrained ecological and historical pressures (Gelfand et al., 2011). Members of the merging firms will more likely engage in conflicts and will be less willing to cooperate with each other. Conflicts and lack of cooperation prohibit the creation of synergies across different business units and functional areas, such as R&D and marketing, and result in lower CBA performance (Buono & Bowditch, 2003; Chua, 2013). In contrast, firms from cultures that are similar in TL are much more able to blend their operations successfully because they share the same worldviews regarding the importance of rules versus flexibility across multiple levels of their organizations—from their leaders, to their practices, to their people—that are grounded in similar experiences (Gelfand et al., 2011). This allows acquiring firms to increase profitability/performance (Birkinshaw et al., 2000). Hence, all else being equal, when firms from cultures that are similar in TL merge during CBAs, the post-acquisition process will likely proceed much more smoothly across different organizational levels, which leads to superior CBA performance compared to CBAs involving firms from cultures that greatly differ in TL. We propose:

**Hypothesis 1**: Cross-country differences in cultural tightness-looseness (TL) negatively affect cross-border acquisition (CBA) post-deal performance.
A Culture by Context Perspective of Tightness-Looseness and Cross-Border Acquisitions

In addition to the main effect of TL discussed above, we take a culture by context perspective (Gelfand et al., 2013), which seeks to understand the conditions under which differences in culture are most pronounced. Research in organizational behavior typically examines the main effect of culture (Gelfand et al., 2017b), yet this approach presents an overly simplified view of cultural difference that are inherently affected by situational contingencies (Gelfand et al., 2013). Accordingly, we take a more nuanced view of culture in CBAs to identify a number of critical contingencies that can affect the relation between TL differences and CBA performance, including the directionality of TL, level of tightness, industry relatedness, and high-tech industry.

Directional Effect of Cultural Tightness-Looseness Differences

We explore the possibility that the strength of TL differences’ impact on CBA performance depends on the direction of TL, i.e., whether the acquirer nation is tighter than the target nation (or vice versa), because M&As are an inherently asymmetric transaction compared to strategic alliances or 50-50 equity joint ventures (Gong, Shenkar, Luo, & Nyaw, 2001; Shenkar et al., 2008). In the context of M&As, the acquirer obtains ownership and control of the target and assumes a leader role of the latter while the target becomes a follower of the acquirer and has to follow the rules, processes, and structures the former intends to establish (Shen, Tang, & Chen, 2014). Under these circumstances, TL differences’ impact on performance likely differs in strength, contingent on whether an acquirer comes from a culture that has stronger norms and more severe sanctioning than the target or whether the target nation has stronger norms and sanctioning than the acquirer nation, even though the absolute distance is the same (Tung & Verbeke, 2010).

When the acquirer nation is tighter than the target nation, the acquirer will be much less comfortable with the cultural (un)familiarity between the two companies, and insist on
implementing strict processes and practices. However, the target will be used to more flexibility and think it can deviate from extant processes and practices. During interactions, the acquirer will likely perceive the target as unpredictable, insubordinate, and will insist on strict adherence to rules. The target, on the other hand, used to having looser rules, will view the acquirer as over-controlling and exploiting its superior position to enforce unnecessary strict rules. Given that acquisitions inherently carry an aura of conquest and dominance (Datta & Grant, 1990; Fugate, Kinicki, & Scheck, 2002), higher tightness of the acquirer nation will amplify this impression, causing negative tensions and conflicts. By contrast, when the acquirer nation is looser than the target nation, the acquirer will less strongly adhere to societal norms than the target. The acquirer will be more open to other practices and will allow the target to choose its own practices while the target will be very careful not to depart from them. Under these circumstances, the powerful acquirer will be more lenient when the target departs from norms. Misunderstanding may still occur, as targets prefer precise instructions from the acquirer while the acquirer is not used to formulating them. However, such misunderstandings are likely less frequent/ severe, as the target will appear overly obedient while the acquirer will be viewed as unusually benevolent. Hence, we hypothesize:

Hypothesis 2: The negative relation between TL differences and CBA post-deal performance is stronger when the acquirer nation is tighter than the target nation than vice versa.

Acquirer and Target Nations’ Level of Tightness

The level of TL should also play a role in determining the importance of TL differences in affecting CBA performance, as firms from tight cultures may be less comfortable with increased cultural dissimilarity, i.e. greater TL differences, compared to those from loose cultures. We expect TL differences to cause greater discord and inefficiency in tighter societies than in looser ones, because acquirers from tight cultures will likely insist on implementing their own practices in the target firm, while targets from tight cultures cannot
accept changes and deviation from their own society’s norms (Shin et al., 2017). This constellation can cause conflict and inefficiency between the merging firms and their organizational members and amplify the negative impact of TL differences. By contrast, acquirers from loose cultures tend to be more open to deviating behaviors and allow the target to keep its own practices, while targets from loose cultures are more willing to try alternative and creative ways to conduct business (Shin et al., 2017). This situation can mitigate the negative impact of TL differences. Thus, TL differences will likely cause greater conflict, inefficiencies, and have a more severe effect on CBA post-deal performance in tighter societies than in looser ones. As a result, we expect the level of TL to affect the magnitude of TL differences’ impact. We propose:

Hypothesis 3: The negative relation between TL differences and CBA post-deal performance is stronger at higher tightness levels than at lower tightness levels.

Industry Relatedness between Acquirer and Target Firms

We expect the relation between TL differences and CBA performance to be further moderated by the industry relatedness between the acquiring and target firms, as industry affects the underlying processes that take place during M&As. In particular, industry relatedness affects the ability and desire of acquirers to intervene with the processes, practices, and routines of the target firms (Harrison, Hitt, Hoskisson, & Ireland, 1991; Homburg & Bucerius, 2005). Related acquisitions involve acquirers and targets in a same (or similar) industry (Fan & Lang, 2000; Maquieira, Megginson, & Nail, 1998) and can improve cost efficiencies, decrease agency costs, and reduce synergies (Hoberg & Phillips, 2010). Acquirers are also more likely to interfere with the target firms’ activities, as the former have an understanding of the operations of the latter (Conyon, Girma, Thompson, & Wright, 2002; Huang et al., 2017; Krishnan, Hitt, & Park, 2007). By contrast, unrelated acquisitions involve organizations from different industries. Motivations for unrelated M&As include financial synergies, governance efficiency, and coinsurance (Mulherin et al., 2017; Seth, 1990). As unrelated
firms share fewer overlapping assets, expertise, and technologies (Datta, Guthrie, Basuil, & Pandey, 2010), acquirers are less knowledgeable of their targets and less able to interfere with their operations.

As a result, acquirers tend to be more open and grant unrelated targets greater autonomy, since acquirers are not familiar with their targets’ industry, technologies, and products. Acquirers will less likely impose their own processes and routines on their targets and, thus, will cause fewer conflicts, mitigating the negative impact of TL differences. By contrast, acquirers will more likely try to enforce their own norms and practices in the acquired targets, if the former operates in the same industry as the latter, as the acquirers (believe they) properly understand the industry. In so doing, however, friction between acquirer and target firms will increase (Shenkar et al., 2008) and, the negative impact of TL will become more evident and lead to greater conflicts, inefficiency, and, ultimately, inferior post-deal CBA performance. Therefore, we argue:

Hypothesis 4: The negative relation between TL differences and CBA post-deal performance is stronger for related than for unrelated deals.

Cross-Border Acquisitions in High-Tech Industries

High-tech industries inherently differ from low-tech industries in two main ways that may affect the relation between cross-country differences in TL and the performance of cross-border M&As. First, human capital is more important in high-tech than in low-tech industries, as firms in low-tech industries often use proven methods and processes while firms in high-tech industries employ sophisticated and complex technologies (Hagedoorn, 1993; Unger, Rauch, Frese, & Rosenbusch, 2011). Human capital helps firms develop new knowledge and skills that allow them to compete with better and novel technological solutions (Colombo & Grilli, 2010; Eisenhardt & Martin, 2000). Second, high-tech industries are characterized by dynamic and uncertain environments (Khandwalla, 1976; Utterback, 1996). In such
environments, organizational members need to interact more frequently and intensely to coordinate and generate responses to environmental changes (Unger et al., 2011).

Accordingly, in high-tech industries, organizational members of the merging firms tend to interact more, as they need to develop and work with complex technologies and make rapid decisions on how to address changes in dynamic environments (Unger et al., 2011; Utterback 1996). Consequently, the negative impact of TL differences will be particularly salient, as differences in constraint versus latitude of the organizational members become increasingly evident through frequent and intense interactions that can lead to conflict and inefficiency (Shenkar et al., 2008). Cultural unfamiliarity, in short, is a liability in contexts that demand high levels of interaction. By contrast, in low-tech industries, however, the merging firms do not need to interact as intensely, as they work with more basic and established technologies that require less coordination (Sáenz, Aramburu, & Rivera, 2009). Firm members do not need to interact as frequently, because significant environmental changes occur less often (Unger et al., 2011). Thus, differences in TL will less likely hamper interaction in low-tech than high-tech industries, as interaction occurs less often/ intensely in the former than in the latter.

Hypothesis 5: The negative relation between TL differences and CBA post-deal performance is stronger for high-tech firms.

**METHODS**

**Data**

To test the hypotheses, we extracted a CBA sample from the SDC Platinum database. We identified 4,717 CBAs from 28 acquirer countries and 30 target countries between January 1, 1989 and December 31, 2013 that met the following criteria (Cai, Song, & Walkling, 2011; Fu, Lin, & Officer, 2013):

1) The acquisition is completed.
2) The acquiring firm owns less than 50 percent of the target firm's shares before the announcement and 100 percent of the target's shares afterwards.

3) The transaction value equals or exceeds 10 million US dollars.

4) Datastream provides annual financial statement data for the acquirer.

**Dependent Variable**

**CBA Post-Deal Performance.** We use *ROA change* to measure the long-term impact of CBAs in line with prior work (e.g., Ellis, Reus, Lamont, & Ranft, 2011; Zollo & Singh, 2004). ROA is frequently used to assess the success of strategic actions (Van Dyck, Frese, Baer, & Sonnentag, 2005) and is less sensitive to estimation bias due to changes in leverage of bargaining power (Krishnan, Miller, & Judge, 1997). We calculate ROA change as the difference in the acquiring firm’s ROA three years after the acquisition in relation to one year before the acquisition (Ellis et al., 2011).

**Independent Variable**

**Cultural Tightness-looseness (TL) Differences.** We use cross-country differences in TL as our main independent variable. We construct the independent variable by calculating the absolute difference between the acquirer nation’s tightness score and the target nation’s tightness score. We obtain tightness scores from Gelfand et al. (2011) in line with prior work (Chua et al., 2015; Eun et al., 2015; Taras et al., 2010). Gelfand and colleagues (2011) provide the most comprehensive measure of TL for modern societies. Data were obtained from 6,823 participants in 33 nations with country sample sizes ranging from 111 to 312 participants. The researchers used a six-item Likert scale to assess the degree to which social norms are clear, pervasive, and reliably imposed in a society. Sample items include “There are many social norms that people are supposed to abide by in this country”, “People agree upon what behaviors are appropriate versus inappropriate in most situations in this country”, and “People in this country almost always comply with social norms.” A higher score indicates a tighter culture. Pakistan (12.3), Malaysia (11.8), India (11.0), and Singapore (10.4) have the
highest scores while Ukraine (1.6), Estonia (2.6), Hungary (2.9), and Israel (3.1) have the lowest scores. Gelfand et al. (2011) carefully verified construct validity and reliability of the scale. The TL measures show high within-nation agreement (r_{within-group} = 0.85), high between-nation variability (intraclass correlation (ICC) = 0.13), and high reliability of the TL scale means (ICC = 0.97). The scale also has high convergent validity with expert ratings, unobtrusive measures, and survey data from representative samples and is distinct from other cultural dimensions including those from Hofstede (2001), GLOBE (House, Hanges, Javidan, Dorfman, & Gupta, 2004), Schwartz (1994), and the World Values Survey (Inglehart 2004), among others (Gelfand et al., 2011).

We matched the 33 societies’ TL scores to the merging firms’ home countries in our sample. We dropped home countries from our dataset for whom Gelfand et al. (2011) do not provide TL scores, and treated them as missing data. Overall, we were able to match 30 of our sample’s home countries with the 33 TL scores provided.

**Directional Effect.** We construct a dummy variable that takes the value 1 if the acquirer nation is tighter than the target nation and 0 if the acquirer nation is looser than the target nation. We obtain the tightness scores from Gelfand et al. (2011).

**Level of Tightness.** We calculate the acquirer and target nations’ level of tightness through the average of the two nations’ tightness scores. That is, level of tightness = (tightness of acquirer nation + tightness of target nation)/2. The tightness scores stem from Gelfand et al. (2011).

**Industry Relatedness.** We construct a dummy that compares the two-digit SIC (Standard Industry Classification) codes of acquirer and target in line with prior work (Louis & Sun, 2010). The dummy takes the value 1 if the firms’ two-digit SIC codes are equal and 0 if they are different. We obtain two-digit SIC codes from SDC Platinum.

**High-tech industry.** We created a binary variable that equals 1 if a deal is between two firms in high-tech industries as defined by Loughran and Ritter (2004) and 0 otherwise.
(Masulis, Wang, & Xie, 2007). High-tech industries are those in the computer hardware, communications equipment, electronics, navigation equipment, measuring and controlling devices, medical instruments, telephone equipment, communications services, and software.

**Control Variables**

To provide a conservative test of our hypotheses, we include many control variables to account for other factors that can affect CBA outcomes and to insure that any effects due to TL are found above and beyond them. We first include the *distances* of the individual cultural values dimensions *power distance*, *uncertainty avoidance*, *individualism*, and *masculinity* between the acquirer and target nations. We obtain cultural values data from Hofstede (1980). We control for the *geographic distance* between target and acquirer nations (Li et al., 2017). We also add the *GDP per capita difference* and *political constraint difference* between the two nations and we include two dummy variables that indicate whether acquirer and target nation share a *common language* and have *colonial ties*, respectively (Chakrabarti, Gupta-Mukherjee, & Jayaraman, 2009; Henisz, 2000). We collected GDP per capita data from the World Bank’s World Development Indicators (WDI) and language/ colony data from CIA’s World Factbook. We also add *acquirer* and *target nation’s language diversity*, respectively (Dow, Cuypers, & Ertug, 2016), and *difference in political hazards* that we obtain from Henisz’s (2000) veto point index (Siegel, Licht, & Schwartz, 2013). In addition, we enter the *percentage acquired* (Aybar & Ficici, 2009; Cuypers, Ertug, & Hennart, 2015) and *acquirer’s sales* (Masulis et al., 2007). We obtained the variables from SDC Platinum and Datastream, respectively. We also enter the *acquirer’s domestic (international) acquisition experience* measured as the total number of domestic (international) takeovers the acquirer completed during the five years before the focal acquisition, as organizations can learn from prior experiences (Li et al., 2017). Moreover, we enter the *transaction value* and two dummy variables *hostility of the deal* and whether the payment was made in cash (*cash payment*).
Year dummies and industry dummies are included to control for year- and industry-specific effects (Li et al., 2017).

**Empirical Model**

We employ clustered (within each nation-dyad) OLS regression with robust standard errors and industry and year fixed effects (Chakrabarti et al., 2009; Li et al., 2017). We also experimented with alternative clusters, e.g., by using acquirer nation, and obtained similar results.

**RESULTS**

Table 1 reports the descriptive statistics and correlation matrix, respectively. VIFs are less than 5.0 for all variables. The correlation matrix and VIF scores suggest low levels of multicollinearity.

Table 2 reports the regression results. Model 1 includes only the control variables. We hypothesize that cross-country differences in TL negatively affect CBA post-deal performance and enter the TL variable in Model 2. We find that differences in TL have a negative and significant influence on acquirer’s ROA at the 0.05 p-level. More specifically, we find that the coefficient of TL differences is negative and that the probability that the sample value would be larger than the value observed if the null hypothesis is true is less than 1.1 percent. TL differences also have an economically meaningful impact on ROA. Acquirers will see their ROA (three years after the acquisition) decrease by 0.8 percentage points on average (equivalent to 245 million US dollars in net income, if assets remained constant) for a one standard deviation increase in TL differences, everything else being equal. Thus, hypothesis 1 was supported. The explained variance is 0.13 and falls roughly within the range reported by other studies that use the same/ a similar dependent variable. For instance, Zollo and Singh (2004) report adjusted R-squares between 0.06 and 0.16 while Ellis et al. (2011)
report values between 0.08 and 0.3 based on data collected through surveys for more homogeneous samples that are restricted to single countries/ specific industries, among others.

The remaining models 3 through 7 test our moderating hypotheses. We propose in hypothesis 2 that directionality negatively moderates the TL-performance relationship, such that the negative relationship between TL differences and CBA post-deal performance is stronger when the acquirer nation is tighter than the target nation, and we test this in Model 3. The results suggest that the interaction’s coefficient for directionality is negative and significant at the 0.05 p-level, and that the probability that the sample value would be larger than the value observed if the null hypothesis is true is less than 2.3 percent. Thus, Hypothesis 2 received support. Figure 2 plots the moderating effect.

We also argued that the tightness level negatively moderates the relationship between TL differences and CBA performance and test it in Model 4. The results show that the interaction term’s coefficient for tightness level is negative and significant at the 0.05 p-level, and the probability that the sample value is larger than the value observed if the null hypothesis was true is less than 2.6 percent. Hypothesis 3 is supported. Figure 3 shows the moderating effect of directionality.

Next, we examined Hypothesis 4, namely that industry relatedness moderates the negative relationship between TL differences and CBA post-deal performance. Model 5 shows that the interaction term’s coefficient for industry relatedness is insignificant. Hypothesis 4 is not supported.

Finally, Hypothesis 5 predicted that the negative impact of TL differences on CBA post-deal performance would be amplified in high-tech industries. Indeed, Model 6 shows that the coefficient for high-tech industry is negative and significant at the 0.001 p-level. In particular, the likelihood that the sample value is larger than the observed value if the null hypothesis is true is less than $6.4 \cdot 10^{-3}$ percent. Thus, the findings support hypothesis 5. Figure 4 shows the moderating effect of directionality. Model 7 reports the full model. The
interaction terms remain significant, while the first-order effect, i.e. when we simultaneously include the moderators, is not significant.

----- Insert Table 2 and Figures 2–4 here -----

**Robustness Tests**

We perform several tests to examine the robustness of our findings. First, we test the validity of our dependent variable. Given that most targets in our sample were private firms and/or typically consolidated into the acquirers (from an accounting standpoint), we do not have access to the target’s accounting data and, thus, are unable to account for its pre-/post-deal ROA and assets and how they may affect the combined firms’ post-deal ROA. To ensure the robustness of our measure, we collect data for the 385 targets for which accounting data are available and construct a measure that captures the asset-weighted average of ROA for both firms a year prior to the focal deal (Rabier 2017; Zollo & Singh 2004). The correlation between the weighted measure and the original is 0.87, suggesting that the two approaches generate very similar measures. The correlation is even higher ($r=0.95$) without agriculture, mining, and construction industries (SIC codes 0100–1999). Running the regression analyses without said industries generates very similar results. We also restrict our sample to those acquirers whose assets have not changed drastically over the period that our dependent variable (ROA change) was measured. As any change in ROA might be the result of a change in the numerator, the denominator, or both, restricting our sample to those CBAs, whose acquiring firms have not experienced drastic changes in assets, may help ensure that the changes in ROA we observe are indeed an outcome of better overall firm performance following cross-border M&As. The regression results again are very similar to the original.

Second, we account for sample selection issues through a two-stage model. We expand our sample and include all deals that an acquirer may have considered in the past. Specifically, we assume that a focal acquirer had the interest and financial means to bid for other targets in the same industry that are ultimately sold (to other acquirers) for no more than
twice the value and no less than half the value of the focal target in the same year. We then formulate a Probit model for the probability of pursuing a deal. In the second stage, we include the estimated selection coefficient, lambda, in the models. The results are robust.

Third, we also use several alternative controls to account for other competing accounts that may explain CBA outcomes. We include or replace different control variables with other variables that are often used in studying CBAs, e.g., acquiring firm’s Tobin’s Q, relative deal size, and GDP per capita growth, among others. In addition, we use different time spans to capture a firm’s relevant experience gained through acquisitions. We also include alternative measures for industry relatedness based on Schildt, Keil, and Maula (2012) that account for similarities of 1-, 3-, and 4-digit SIC codes. The results of the analyses are highly similar to the original and are available from the authors upon request.

DISCUSSION

In this paper, we examine the impact of TL differences on CBA performance. While CBAs have steadily become more popular over the past decades and have offered MNEs opportunities to access foreign markets and resources (Dikova et al., 2010; Erel et al., 2012), they have also been plagued by failure with disastrous economic consequences for the stakeholders involved (Child et al., 2001). Yet, there is still limited understanding for why and when this is the case (Seth et al., 2002; Shenkar, 2001). While most research on CBAs focus on cultural values, we expand on this to examine how the strength of social norms, or tightness-looseness, affects CBAs. We theorize and find, for the first time, that cross-country differences in TL significantly affect acquirer’s ROA, above and beyond differences in cultural values. We further advance a culture by context perspective (Gelfand et al., 2013) to identify the specific contexts that amplify the effects of TL on CBA, and show that directionality of TL, the absolute level of tightness, and membership in high-tech industries amplify the negative relationship between TL differences and CBA post-deal performance.
Theoretical Implications

Our work has theoretical implications for both cross-cultural and CBA research. While extant studies have linked the norms-based TL concept to different managerial phenomena that include high performance work systems (Rabl et al., 2014), leadership styles (Aktas et al., 2016), and managerial discretion (Crossland & Hambrick, 2011), TL has yet to be applied to understand the cultural interface—that is, to help understand the outcomes of organizations that try to merge across different cultures. As such, this is the first study, to our knowledge, that examines the influence of TL on CBA outcomes. The results show that cross-country differences in TL between the target and acquirer nations negatively affect changes in ROA, such that a one standard deviation increase in TL difference results in an average decrease of acquirer’s ROA by 0.8 percentage points, equivalent to a drop of 245 million US dollars in net income, if assets remained constant. The results are obtained after controlling for many other variables including differences in Hofstede’s (2001) cultural values dimensions and show that merging organizations from societies with very different TL have greater difficulty than organizations from societies that are similar in TL to perform well following the merger.

These findings illustrate that TL differences are a novel cultural factor driving CBA performance and add to the body of work studying culture’s influence on M&A success. While previous research regularly turn to national culture as an explanatory variable of CBA success/failure (Datta & Puia, 1995; Markides & Ittner, 1994; Morosini et al., 1998), they have almost exclusively focused on cultural values and, in so doing, have neglected cultural norms (Leung & Morris, 2015). Our work advances extant research on CBAs by focusing on how the strength of social norms affects CBA performance. We argue that differences in TL can cause conflict and inefficiency resulting from incompatible expectations of leadership styles, employee behaviors, and organizational routines that have negative post-deal performance implications for CBAs. Our study demonstrates that differences in TL are an important factor that significantly affects CBA performance.
Rather than taking a static main effect approach to culture’s impact on CBAs, however, we advance a *culture by context* perspective to identify the specific factors that amplify the negative impact of TL on CBA performance. We show, for example, that the cultural familiarity premise depends on the relative tightness between the acquirer’s and the target’s culture and on the level of tightness of the merging firms’ cultures. In particular, we find that when the acquirer’s culture is tighter than the target’s, cultural (un)familiarity will be a greater issue than when the target’s culture is tighter than the acquirer’s, for the same extent of TL differences. We also find that tight cultures deal less well with cultural unfamiliarity, such that the (negative) role of cultural (un)familiarity becomes aggravated for tighter cultures than for looser ones. Further, we show that the cultural familiarity hypothesis may be contingent upon the type of tasks conducted by the firms involved. While cultural familiarity may be particularly important in cross-border M&As in high-tech industries that are characterized by intense and frequent interactions between members of the merging firms, it is less important in M&A performance in low-tech industries. Therefore, our findings help expand cultural familiarity theory beyond the simple cultural-difference-performance premise and introduce several boundary conditions that warrant further investigation.

Finally, we advance research on cultural distance and help address and overcome some of its criticisms in several ways (Shenkar, 2001; Tung & Verbeke, 2010). First, we examine directionality of TL differences. Assessing directionality addresses the often invalid symmetry assumption of culture and enables more nuanced theorizing that captures asymmetries in power, hierarchy, and resources (Lee et al., 2008; Shenkar et al., 2008). Second, we study the moderating influence of absolute level of tightness on TL differences’ impact on CBA performance. While previous work has provided valuable insights by comparing the importance between home and/ or host culture vis-à-vis cultural differences (e.g., Brock, Shenkar, Shoham, & Siscovick, 2008; Harzing & Pudelko, 2016), we depart from this comparative approach and explore to which extent the absolute level of a cultural
variation affects its relative difference between two nations. In so doing, our work offers a more nuanced approach to when cultural differences will affect CBA post-deal performance.

**Managerial Implications**

This study has a number of practical implications. While managers and practitioners traditionally are taught to pay attention to differences of another culture’s values, our findings show that they also need to become acutely aware of a culture’s TL (Gelfand, 2018). Some cultures may enforce cultural norms more strictly, in which case practitioners need to understand that norms abidance is expected and predictability, control, and coordination are important. Other cultures may have weaker cultural norms. For those cultures, practitioners need to understand that deviation from social norms is more common as creativity and flexibility are embraced. These differences also evolve in part due to specific ecological and historical conditions. Hence, our results suggest that managers should diagnose the relative strength of cultural norms in foreign cultures when operating abroad.

Differences do not inevitably lead to disappointing outcomes, however. Our *culture by context* approach helps managers to identify specific factors that strengthen/weaken TL’s effect. Once managers and practitioners understand differences between countries, they need to actively negotiate them so they avoid the negative frictions of cross-cultural interaction and capitalize on the benefits of tight versus loose cultures in their organizations (Gelfand et al., 2018). That is, managers can leverage the advantages of greater predictability, control, and self-regulation of tight cultures and those of greater openness and creativity of loose cultures where needed. One opportunity may be the creation of hybrid organizational cultures, wherein organizational divisions that require a high degree of coordination, reliability and predictability (e.g., manufacturing) are cultivated to be relatively tight while organizational divisions that need to be innovative and flexible (e.g., research and development) are cultivated to be loose (see also O’Reilly and Tushman [2011] for similar notions of managing exploitation and exploration in organizations). Moreover, leaders then need to create
superordinate identities that help integrate functional units that vary on TL together. When managers understand the TL of cultures and have the appropriate global mindset, they will be able to take advantage of and leverage different societies’ TL.

**Limitations and Avenues for Future Research**

Our work also has limitations that invite interesting avenues for future research. First, we are not able to observe the exact and detailed mechanisms that affect CBA post-deal performance. While we draw on well-established measures/methods (Ellis et al., 2011) and build our arguments on sound theory and prior findings in cross-cultural and management research, we ultimately cannot capture the precise mechanisms that explain the TL-CBA performance relationship. Future studies can use case studies, interviews, and surveys to identify more fine-grained processes that occur during M&As and help shed light on TL’s role in the M&A process. Second, we do not directly capture within-country heterogeneity in TL. While culture can be homogenous within countries, spatial differences may exist (Harrington & Gelfand, 2014; Hofstede, 2001; House et al., 2004). Future work can collect TL scores for different regions within nations and/or incorporate existing regional TL scores (e.g., Harrington and Gelfand [2014] separately measure TL for the 50 states of the U.S.A.) to provide a more detailed account of TL. Moreover, direct assessments of the TL of organizations involved in CBAs would help us gain further precision into the dynamics of TL differences in CBAs.

Third, we do not include all possible moderators in our analyses due to data availability. It would be interesting to examine how different approaches to/ levels of *post-merger integration* may affect TL’s impact on CBA outcomes (Hасpeslagh & Jemison, 1991). Acquirers that leverage the advantages of tight cultures for organizational divisions that require reliability and those of loose cultures for divisions that need to be innovative will likely perform better than acquirers that do not follow such an approach during post-merger integration as compared to those that forcefully require all acquired units to adopt one uniform culture, irrespective of contextual requirements. Subsequent studies can examine the
moderating effects of specific integration approaches, e.g., what organizational units remain autonomous or which organizational processes are combined, on the relationship between TL and CBA performance.

**Conclusion**

We use a novel norms-based cultural framework, the TL of societies, to study cross-border M&A outcomes. Our results suggest that differences in TL negatively affect the performance of CBAs. We also take a dynamic approach to TL differences in CBAs and find that the impact of TL on performance is particularly pronounced based on the directionality of TL, the average level of tightness, and membership in high-tech industries. To build on our findings, we encourage future work to use TL to help examine and better understand culture’s influences on a wide variety of organizational phenomena.
REFERENCES


Table 1. Correlation matrix for cross-border acquisitions (CBAs), 1989–2013.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>St. Dev.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA difference</td>
<td>-5.04</td>
<td>13.23</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural tightness-looseness (CTL) differences</td>
<td>1.94</td>
<td>1.29</td>
<td>-0.053</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directional effect</td>
<td>0.54</td>
<td>0.50</td>
<td>-0.039</td>
<td>0.093</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of tightness</td>
<td>6.04</td>
<td>1.08</td>
<td>-0.008</td>
<td>0.286</td>
<td>0.029</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Industry relatedness</td>
<td>0.53</td>
<td>0.50</td>
<td>-0.004</td>
<td>0.007</td>
<td>0.025</td>
<td>-0.028</td>
<td>1</td>
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<tr>
<td>High-tech industry</td>
<td>0.10</td>
<td>0.31</td>
<td>0.044</td>
<td>0.011</td>
<td>-0.013</td>
<td>-0.022</td>
<td>0.146</td>
<td>1</td>
<td></td>
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<td>Power distance distance</td>
<td>14.04</td>
<td>12.92</td>
<td>-0.027</td>
<td>0.217</td>
<td>0.011</td>
<td>0.242</td>
<td>0.048</td>
<td>0.022</td>
<td>1</td>
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<tr>
<td>Uncertainty avoidance distance</td>
<td>22.21</td>
<td>15.82</td>
<td>0.042</td>
<td>-0.021</td>
<td>0.054</td>
<td>0.252</td>
<td>-0.001</td>
<td>0.009</td>
<td>0.492</td>
<td>1</td>
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<td>Individualism distance</td>
<td>18.29</td>
<td>18.54</td>
<td>0.007</td>
<td>0.389</td>
<td>-0.010</td>
<td>0.287</td>
<td>0.038</td>
<td>0.009</td>
<td>0.606</td>
<td>0.504</td>
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<td>Masculinity distance</td>
<td>14.70</td>
<td>15.56</td>
<td>0.008</td>
<td>0.340</td>
<td>0.050</td>
<td>-0.005</td>
<td>0.005</td>
<td>-0.021</td>
<td>0.141</td>
<td>0.241</td>
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<td>Geographic distance</td>
<td>8.42</td>
<td>1.08</td>
<td>0.066</td>
<td>0.231</td>
<td>0.015</td>
<td>-0.121</td>
<td>0.010</td>
<td>0.056</td>
<td>-0.106</td>
<td>-0.213</td>
<td>0.136</td>
<td>-0.278</td>
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<td>GDP per capita difference</td>
<td>10,250.15</td>
<td>10,237.61</td>
<td>-0.059</td>
<td>0.366</td>
<td>0.019</td>
<td>0.221</td>
<td>0.050</td>
<td>0.395</td>
<td>-0.005</td>
<td>0.444</td>
<td>-0.016</td>
<td>0.220</td>
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<td>Common language</td>
<td>0.44</td>
<td>0.50</td>
<td>-0.044</td>
<td>0.017</td>
<td>0.039</td>
<td>-0.115</td>
<td>-0.012</td>
<td>0.046</td>
<td>-0.300</td>
<td>-0.523</td>
<td>-0.440</td>
<td>-0.525</td>
<td>0.332</td>
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<td>Colonial ties</td>
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<td>0.49</td>
<td>-0.013</td>
<td>-0.100</td>
<td>0.037</td>
<td>-0.048</td>
<td>-0.029</td>
<td>0.043</td>
<td>-0.261</td>
<td>-0.266</td>
<td>-0.457</td>
<td>-0.371</td>
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<td>Acquirer country's language diversity</td>
<td>0.28</td>
<td>0.19</td>
<td>-0.047</td>
<td>0.207</td>
<td>-0.217</td>
<td>0.096</td>
<td>0.060</td>
<td>0.073</td>
<td>0.295</td>
<td>-0.052</td>
<td>0.150</td>
<td>0.029</td>
<td>-0.022</td>
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<td>Target country's language diversity</td>
<td>0.30</td>
<td>0.18</td>
<td>-0.029</td>
<td>0.155</td>
<td>0.120</td>
<td>0.156</td>
<td>-0.008</td>
<td>0.042</td>
<td>0.194</td>
<td>0.091</td>
<td>0.120</td>
<td>0.182</td>
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<td>Percentage acquired</td>
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<td>5.90</td>
<td>0.000</td>
<td>0.027</td>
<td>0.003</td>
<td>-0.022</td>
<td>-0.099</td>
<td>0.015</td>
<td>-0.066</td>
<td>-0.050</td>
<td>-0.075</td>
<td>-0.005</td>
<td>-0.008</td>
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<td>Acquirer's sales</td>
<td>8.86</td>
<td>22.00</td>
<td>0.015</td>
<td>0.030</td>
<td>0.019</td>
<td>0.021</td>
<td>-0.057</td>
<td>-0.048</td>
<td>0.004</td>
<td>0.026</td>
<td>0.065</td>
<td>0.082</td>
<td>-0.029</td>
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<tr>
<td>Acquirer's domestic M&amp;A experience</td>
<td>1.30</td>
<td>2.40</td>
<td>-0.022</td>
<td>-0.051</td>
<td>-0.071</td>
<td>-0.095</td>
<td>-0.063</td>
<td>0.095</td>
<td>-0.107</td>
<td>-0.091</td>
<td>-0.108</td>
<td>-0.121</td>
<td>0.092</td>
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<tr>
<td>Acquirer's international M&amp;A experience</td>
<td>0.99</td>
<td>1.73</td>
<td>-0.023</td>
<td>-0.016</td>
<td>0.025</td>
<td>0.015</td>
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<td>0.027</td>
<td>0.027</td>
<td>0.018</td>
<td>0.072</td>
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<tr>
<td>Acquirer's host-country M&amp;A experience</td>
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<td>1.17</td>
<td>-0.029</td>
<td>-0.059</td>
<td>0.139</td>
<td>-0.078</td>
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<td>-0.188</td>
<td>-0.126</td>
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<tr>
<td>Deal value</td>
<td>431.23</td>
<td>2,079.21</td>
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<td>-0.001</td>
<td>0.020</td>
<td>-0.026</td>
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<td>-0.019</td>
<td>0.010</td>
<td>0.005</td>
<td>0.030</td>
<td>-0.030</td>
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<td>0.06</td>
<td>-0.003</td>
<td>-0.022</td>
<td>0.010</td>
<td>-0.013</td>
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<td>-0.020</td>
<td>-0.021</td>
<td>-0.020</td>
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Notes: 4,717 observations (CBAs). Correlations ≥ 0.029 or ≤ -0.029 are significant at the 0.05 level.
Table 1 (continued). Correlation matrix for cross-border acquisitions (CBAs), 1989–2013.

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Notes: 4,717 observations (CBAs). Correlations ≥ 0.029 or ≤ -0.029 are significant at the 0.05 level.
Table 2. Regression results for acquirers’ change in ROA, 1989–2013 (part 1).

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<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
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<td>(0.257)</td>
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<td>(0.335)</td>
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<td>(0.259)</td>
<td>(0.317)</td>
<td>(0.307)</td>
<td>(0.307)</td>
<td>(0.317)</td>
<td>(0.311)</td>
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<td>Geographic distance</td>
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<td>0.403</td>
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</tr>
<tr>
<td></td>
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<td>(0.264)</td>
<td>(0.269)</td>
<td>(0.271)</td>
<td>(0.271)</td>
<td>(0.268)</td>
<td>(0.264)</td>
</tr>
<tr>
<td>GDP per capita difference</td>
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<td>-0.968**</td>
<td>-0.881**</td>
<td>-0.930**</td>
<td>-0.881**</td>
<td>-0.874**</td>
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<td>(0.326)</td>
<td>(0.323)</td>
<td>(0.314)</td>
<td>(0.318)</td>
<td>(0.324)</td>
<td>(0.317)</td>
</tr>
</tbody>
</table>
Table 2. Regression results for acquirers’ change in ROA, 1989–2013 (part 2).

| Common language | -0.743 | -0.285 | -0.300 | -0.187 | -0.285 | -0.110 | -0.038 |
| Colonial ties   | -0.074 | 0.009  | -0.128 | -0.216 | 0.009  | -0.091 | -0.427 |
| Political hazard difference | -0.175 | -0.113 | -0.110 | -0.160 | -0.112 | -0.139 | -0.038 |
| Acquirer country's language diversity | -3.829* | -3.483* | -3.03*  | -2.988* | -3.473* | -3.522* | -2.639* |
| Target country's language diversity | -1.077 | -1.087 | -1.788 | -0.796 | -1.082 | -0.978 | -1.455 |
| Percentage acquired | 0.023 | 0.013  | -3.030* | -2.988* | -3.473* | -3.522* | 0.052  |
| Acquirer's sales | -0.150 | -0.107 | -0.193 | -0.158 | -0.158 | -0.155 | -0.190 |
| Acquirer's domestic M&A experience | 0.023 | -0.178 | -0.198 | -0.184 | -0.179 | -0.167 | -0.191 |
| Acquirer's international M&A experience | -0.304 | -0.281 | -0.307 | -0.299 | -0.281 | -0.298 | -0.340 |
| Acquirer's host-country M&A experience | -0.069 | -0.079 | -0.052 | -0.067 | -0.079 | -0.086 | -0.049 |
| Deal value | -0.411** | -0.394* | -0.397** | -0.399** | -0.394* | -0.372* | -0.378* |
| Hostility of deal | 1.439 | 1.346 | 1.191 | 1.363 | 1.351 | 1.381 | 1.230 |
| Cash payment | -1.67** | -1.666** | -1.639** | -1.674** | -1.667** | -1.678** | -1.656** |
| Intercept | 4.462* | 4.895* | 5.151† | 4.520* | 4.687* | 3.993† | 4.164 |
| Observations | 4,717 | 4,717 | 4,717 | 4,717 | 4,717 | 4,717 | 4,717 |
| Country-dyads | 318  | 318  | 318  | 318  | 318  | 318  | 318  |
| R-squared | 12.72 % | 12.85 % | 12.99 % | 12.93 % | 12.85 % | 13.23 % | 13.44 % |

Time and industry dummies included. Std. errors in parentheses. †p <0.1; *p<0.05; **p<0.01; ***p<0.001.
Figure 1: Research model

- Cultural tightness-looseness differences
- Directionality: acquirer nation tighter
- Tightness level
- Industry relatedness
- High-tech industry

H1: –
H2: –
H3: –
H4: –
H5: –

Cross-border acquisition performance

Figure 2: Moderating effect of directionality on the relationship between TL differences and CBA performance
Figure 3: Moderating effect of the level of tightness-looseness on the relationship between TL differences and CBA performance

![Figure 3: Moderating effect of the level of tightness-looseness on the relationship between TL differences and CBA performance](image)

Figure 4: Moderating effect of high-tech industry on the relationship between TL differences and CBA performance

![Figure 4: Moderating effect of high-tech industry on the relationship between TL differences and CBA performance](image)