



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

## International Business Review

journal homepage: [www.elsevier.com/locate/ibusrev](http://www.elsevier.com/locate/ibusrev)



# M&A and innovation: The role of integration and cultural differences— A central European targets perspective

Florian Bauer<sup>a,\*</sup>, Kurt Matzler<sup>b</sup>, Stefan Wolf<sup>c</sup>

<sup>a</sup> Department of Management & Law, MCI Management Center Innsbruck, 6020 Innsbruck, Austria

<sup>b</sup> Department of Strategic Management, Marketing and Tourism, University of Innsbruck, 6020 Innsbruck, Austria

<sup>c</sup> University of Innsbruck, 6020 Innsbruck, Austria

### ARTICLE INFO

Article history:  
Available online xxx

Keywords:  
Innovation  
M&A  
National culture  
Targets perspective

### ABSTRACT

Cultural differences are an important issue for cross-border M&A. Empirical evidence for the impact of cultural differences on M&A performance is mixed. A major reason for these inconclusive results relies on integration. One main motive for cross-border transactions is the acquisition of innovative capabilities. In a study of innovation-driven M&A in the German-speaking part of Europe, we find different effects of human and task integration on the innovation outcome after the transaction. While human integration (i.e., the creation of a shared identity and satisfaction among the employees from both organizations) is rather destructive, task integration (i.e., the transfer and sharing of resources and capabilities) is beneficial for innovation output. Furthermore, the integration-innovation performance relationship is moderated by national cultural differences. While national cultural differences have a downward curvilinear slope moderating the effect of human integration to innovation, we find a clear inverted U-shaped slope moderating the effect for task integration. Both effects indicate that cultural similarity is more beneficial in the case of innovation-driven M&A with targets in Central Europe.

© 2014 Elsevier Ltd. All rights reserved.

## 1. Introduction

Mergers and Acquisitions (henceforth: M&A) are a popular research topic. The global transaction volume which equals the GDP of economies like Brazil (in 2013 \$ 2.24 trillion) emphasizes its significance for managerial practice. Even though domestic transactions still play a major role, the number of cross-border M&A has increased during the last two decades (Shimizu, Hitt, Vaidyanath, & Pisano, 2004). M&A offer firms the opportunity to develop new markets or to seek for the transfer of technology and innovation to keep pace with the globalization of business (Hitt, Franklin, & Zhu, 2006). Even though cross-border deals have played a role in the market for corporate control since the fourth merger wave, a significant increase in terms of numbers and volume of cross-border transactions can be observed since the 2000s. Cross-border M&A differ from domestic M&A, as buyer and target firms are embedded in different cultural environments. Despite the great practical importance of cross-border M&A, there is only little academic knowledge and understanding of the phenomenon

(Shimizu et al., 2004). Past research has shown that national culture is an important factor for the success or failure of cross-border M&A (Weber, 1996; Teerikangas & Very, 2006; Stahl & Voigt, 2008). The interaction and management of two different national cultures is a major challenge and a common reason for failure (Björkman, Stahl, & Vaara, 2007). National cultures are relevant for merger integration, processes, and outcomes (Weber, 1996; Stahl & Voigt, 2008). Differences in national cultures can have positive effects (e.g., learning of new routines, knowledge transfer) or negative effects (e.g., distrust, conflicts). Clashes between two cultures due to different values and practices can lead to a lack of collaboration and understanding (Nahavandi & Malekzadeh, 1988; Cartwright & Cooper, 1996), causing the negative performance of cross-border M&A. However, empirical studies concerning cultural differences provide mixed results (Weber, 1996; Morosini, Shane, & Singh, 1998).

Despite the increasing research attention on M&A in general and cross-border transactions in particular, there is still an observable gap between academic understanding of the value creating or destroying conditions and the practical importance of M&A (Ellis, Reus, & Lamont, 2009). Due to the constantly low success rates of about 40–60 percent (Homburg & Bucerius, 2006), it must be stated that the key determinants of post-acquisition performance still remain unclear (Weber, Tarba, & Reichel, 2011a;

\* Corresponding author. Tel.: +43 512 20703634.

E-mail addresses: [Florian.bauer@mci.edu](mailto:Florian.bauer@mci.edu) (F. Bauer), [Kurt.matzler@uibk.ac.at](mailto:Kurt.matzler@uibk.ac.at) (K. Matzler), [Wolfstefan86@gmail.com](mailto:Wolfstefan86@gmail.com) (S. Wolf).

King, Dalton, Daily, & Covin, 2004). Current reviews conclude that the commonly analyzed variables fail in explaining post-merger performance and that unidentified variables and interactions caused by the fragmentation of research (Stahl & Voigt, 2008) could help us in developing a better understanding of the phenomenon (King et al., 2004). With the following literature review, we want to draw attention to three major problem fields in current research.

## 2. Literature review and contribution

An emerging and growing field of research has investigated the cultural dynamics of M&A. The literature has tried to explain the success or failure of M&A in terms of cultural fit (Weber, 1996), cultural distance (Morosini et al., 1998; Slangen, 2006; Reus & Lamont, 2009; Chakrabarti, Gupta-Mukherjee, & Jayaraman, 2009), and cultural similarities (Very, Lubatkin, Calori, & Veiga, 1997; Oudenhoven & Zee, 2002). The cultural fit, distance, or similarities hypotheses suggest that international cultural contact is associated with risks, difficulties, and costs (Hofstede, 2001). Coordination and communication between the merging entities becomes more challenging, and thus, the effort and costs of integration increase with escalating differences between the involved cultures (Kogut & Singh, 1988). As the employees of the merging entities are embedded in their national cultures, cross-border M&A lead to misunderstandings in decision-making and difficulties during the implementation phase. Interactions between the merging entities become problematic (Olie, 1994). However, national cultural differences can also have positive effects. Routines, resources and capabilities can be transferred and redeployed (Morosini et al., 1998; Capron & Hulland, 1999), leading to the realization of synergies (Larsson & Risberg, 1998).

Empirical research provides us with mixed evidence, providing evidence for negative (Datta & Puia, 1995; Slangen, 2006) and positive relationships between cultural differences and the M&A outcome (e.g., Morosini et al., 1998; Capron & Hulland, 1999). Numerous researchers point to inconclusive and often contradictory results and call for further research (Schoenberg, 2000; Teerikangas & Very, 2006; Child, Faulkner, & Pitkethly, 2000; Slangen, 2006; Jemison & Sitkin, 1986).

One major reason for these inconclusive findings may be attributed to the fact that national cultural differences affect in different ways various stages of the M&A process, from target screening, due diligence and negotiation practices to integration (Slangen, 2006). Even though cultural differences affect the whole process, they become most obvious during the integration phase. Cultural effects occur when people interact, and most interactions of employees occur in the post-merger integration phase. Hence, it is this phase of M&A when cultural collisions or a beneficial transfer, interaction, and redeployment effect appears (Slangen, 2006; Jemison & Sitkin, 1986). Most studies on cultural differences argue for a direct effect of cultural differences on the M&A outcome (Capron & Guillen, 2009), while only a few conceptual papers and empirical studies investigate the interplay of integration and national cultural differences (e.g., Slangen, 2006; Morosini et al., 1998; Child et al., 2000; Weber et al., 2011a; Weber, Rachman-Moore, & Tarba, 2011b).

Consequently, it can be argued that the integration strategy plays an important role (Teerikangas & Very, 2006; Gomes, Angwin, Weber, & Tarba, 2013), and managing and integrating different cultures is a central issue (Grotenhuis, 2001). It has been found that national cultural attitudes are essential for integration and the outcome of a transaction (Weber, 1996; Weber et al., 2011a). Morosini and colleagues state that national cultural distance affects the post-acquisition strategy (Morosini et al., 1998), while Schweiger and Goulet (2005) found that cultural distance can be bridged in the early phase of integration. Stahl and

Voigt (2008) found in their meta-analysis of 46 studies that cultural differences negatively influence sociocultural integration.

To summarize, there is a lack of understanding about how different integration actions and approaches influence M&A outcomes (Haleblian, Devers, McNamara, Carpenter, & Davison, 2009), and there is a call for further research on the relationship between cultural differences and integration (Weber, Tarba, & Reichel, 2009). In a recent paper, Weber et al. (2011a) present a theoretical model of how specific cultural traits are related to different integration approaches. Even though integration activities are usually cited to be necessary and essential for the M&A outcome (Cording, Christmann, & King, 2008), the value-creating mechanisms of M&A still remain unclear (King et al., 2004). Against the common agreement that at least a certain level of integration is beneficial, some researchers argue for autonomy. In a seminal paper, Datta and Grant (1990) investigated the relationship of integration and autonomy and their effects on success; they found empirical evidence that autonomy is beneficial in unrelated acquisitions but not significantly in related ones. Howell developed a framework existing of three types of acquisition strategies, namely financial, marketing, and manufacturing, each with different requirements according to integration (Howell, 1970). Christensen, Alton, Rising, and Waldeck (2011) argue that the beneficial effects of integration vary with the underlying motive of the acquisition. If the main motive for the acquisition is boosting the existing business model, quick and deep integration is beneficial, while in the case of reinventing business models, integration destroys value (Christensen et al., 2011).

Next, regarding the main motive of cross-border M&A – i.e. access to new markets – the acquisition of technology and know-how became more important in the last decades (Bertrand & Zuniga, 2006; Cassiman, Colombo, Garrone, & Veugelers, 2005; Makri, Hitt, & Lane, 2010; Grimpe & Hussinger, 2013), and M&A can be seen as a vehicle to broaden the knowledge-base of a firm (Björkman et al., 2007; Vermeulen & Barkema, 2001). International technological companies in particular are seeking knowledge transfer through M&A (Bresman, Birkinshaw, & Nobel, 2010). With the acquisition of external knowledge bases and resources (Chakrabarti, Hauschildt, & Süverkrüp, 1994; Gerpott, 1995), firms try to improve their innovation output (Ahuja & Katila, 2001; Cloodd, Hagedoorn, & Kranenburg, 2006). Acquisitions offer firms the possibility to foster innovation and allow access to external knowledge, which is more difficult and slower to generate internally (Prabhu, Chandy, & Ellis, 2005). Even though the link of R&D and M&A is important, it is not well researched (Cassiman et al., 2005).

To leverage the innovation potential of an acquisition, a certain degree of knowledge transfer is necessary (Bresman et al., 2010), and the combination and interaction of complementary resources facilitate innovation success (King, Covin, & Hegarty, 2003). However, it is also argued that the integration of knowledge bases is disruptive and destroys innovation performance (Cloodd et al., 2006). Paruchuri, Nerkar and Hambrick (2006) found empirical evidence that integration leads to productivity losses of corporate scientists in terms of patents. Puranam and his colleagues investigated the role of structural integration and found that integration is not always necessary and beneficial (Puranam, Singh, & Chaudhuri, 2009).

The results of empirical studies on the impact of M&A on innovation vary (Ahuja & Katila, 2001; Ernst & Vitt, 2000), and the investigated relationships between M&A and innovation processes are inconsistent and hard to generalize (Cassiman & Ueda, 2006; Cassiman et al., 2005; Hitt, Hoskisson, & Ireland, 1990; Paruchuri et al., 2006). A major reason for these diverging results might be found in integration, as different types of acquisitions (e.g., the acquisition of market access and knowledge) require different

integration approaches, as they have different requirements and intentions.

Furthermore, the proposed beneficial effects of M&A may be mainly obtained at the costs of target employees and organization. Even though it is often the organizational resistance in the target that causes negative M&A outcomes, most prior acquisition literature investigates M&A from a buyer's perspective (Graebner & Eisenhardt, 2004).

Against this background, our study makes three major contributions. First, we link the concepts of integration and national cultural differences with innovation performance after an acquisition. We argue that a country's cultural differences moderate the beneficial or detrimental effects of integration on innovation. Thus, we contribute to existing literature by studying the interaction of cultural differences, integration, and innovation simultaneously.

Second, we argue that integration is not one-dimensional but represents a complex process (Shrivastava, 1986), and we separate integration into human and task integration (Birkinshaw, Bresman, & Hakanson, 2000). We define human integration as the reduction of uncertainty among employees to generate a shared identity, while task integration represents the coordination of transferring and sharing capabilities and resources. Human integration is of organizational cultures and values and aims to create positive attitudes among employees and a shared identity with the company (Ashforth & Mael, 1989; Hinds & Mortensen, 2005). Task integration aims at realizing operational synergies. Even though both are interrelated to some extent, and acquisition success is a function of both (Bower, 2004), they are not parallel activities with effects in the same direction (Birkinshaw et al., 2000). Consequently, we develop arguments for the advantages and disadvantages of the extent of human and task integration.

Thirdly, we focus on the target's perspective of M&A. Our sample consists of target executives from Central European firms which were acquired from other countries. This is an important contribution to current literature, as most research takes the perspective of the acquirer and is mainly concerned with the outbound M&A of well-developed countries. We draw implications from the reality that the direction of cultural differences matters, an issue that has until now received little attention (Weber et al., 2009).

Our paper is structured as follows: After reviewing the literature on international M&A, integration, and innovation, we develop a theoretical framework and hypotheses. In chapter four, we describe our methodology, while in chapter five, the hypotheses are tested. In chapter six, we discuss managerial and theoretical conclusions as well as limitations.

### 3. Research model and hypothesis

Integration is crucial for M&A. Based on Shrivastava (1986), there is a growing recognition that integration is a complex, rather than a uni-dimensional, concept. Hence, we separate integration into human and task integration and hypothesize different effects. While integration and the innovation outcome are firm-specific and manageable, cultural differences are more difficult to deal with. National cultural differences are defined as the degree to which cultural norms between two countries differ (Kogut & Singh, 1988). In the context of mergers and acquisitions, national cultural distance thereby represents the "distance in the norms, routines, and repertoires for organizational design, new product development, and other aspects of management that are found in the acquirer's and the target's countries of origin" (Morosini et al., 1998). Such routines and repertoires are critical to M&A performance and vary across countries in direct association with national cultural distance between them (Morosini et al., 1998).

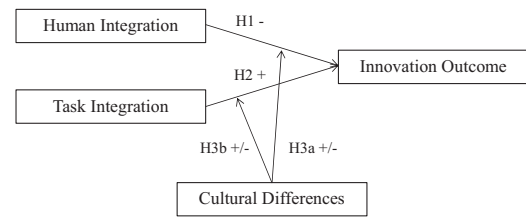


Fig. 1. Research model.

The following Fig. 1 shows our proposed research model. The corresponding hypotheses will be explained consecutively (Fig. 1).

#### 3.1. Direct effects

The first hypothesis in the research model addresses the link between human integration and the innovativeness of the combined entity. Human integration represents a major challenge for M&A. Various studies have emphasized the importance of cultural, social or human integration in multinational companies in general (Roth, Schweiger, & Morrison, 1991; Bartlett & Ghosal, 2002) and in M&A in particular (Haspeslagh & Jemison, 1991; Birkinshaw et al., 2000; Stahl & Voigt, 2008). Most previous studies investigated the influence of integration depth on acquisition performance (Larsson & Finkelstein, 1999; Zollo & Singh, 2004). However, studies about technology acquisitions found that post-acquisition integration in general may defeat the innovative capabilities gained (Chaudhuri & Tabrizi, 1999; Birkinshaw et al., 2000; Graebner, 2004). A major reason for decreasing innovation output after an acquisition is post-acquisition integration (Puranam, Singh, & Zollo, 2006). The acquired company has to cope with new processes and procedures (Zollo & Singh, 1998), and the inventor productivity, assessed with patents, is negatively influenced by integration (Paruchuri et al., 2006). Furthermore, the proposed synergistic complementarities, such as know-how, are reduced due to integration (Stahl & Voigt, 2008). Additionally, integration raises the risk that attractive resources sought at the beginning of the merger will be destroyed (Zollo & Singh, 2004). The integration and the transfer of knowledge and capabilities is tricky, as knowledge is often tacit and socially complex (Björkman et al., 2007). Research found that acquired entities are negatively affected due to a loss of autonomy through integration (Puranam et al., 2006). Due to incompatibilities, integration triggers disruption (Cartwright & Cooper, 1992), and cultural shock and a loss of identity may arise for employees who have to adopt the new norms and policies (Buono, Bowditch and Lewis, 1985). For the inventors who have lost their social status in the merged company, acquisition integration will be most disruptive, and as a consequence, productivity will decrease (Paruchuri et al., 2006). Sarala and colleagues argue in a recent paper that resource and coordination flexibility is a necessary precondition for resource endowment (Sarala, Junni, Cooper, & Tarba, 2014). This flexibility decreases with a higher level of human integration. In conclusion, human integration may evoke disruption and a loss of autonomy of employees and lead to less flexibility. Furthermore, the productivity of inventors will diminish. Hence, we conclude that:

**Hypothesis 1.** Human integration is negatively related to innovation outcome.

Task integration as the coordination mechanism of transferring resources and capabilities, and sharing is a strong predictor for synergy realization. With a high degree of interaction and coordination between the merging firms, the synergy effect will be higher (Larsson & Finkelstein, 1999). This is in line with Pablo (1994), who recommends that processual and structural changes



must be carried out to achieve synergy realization. Furthermore, performance will be higher if integration occurs (Alexander, Nuchols, Bloom, & Lee, 1995), as the integration of different business activities facilitates synergies in manufacturing (Häkkinen, Norrman, Hilmola, & Ojala, 2004). Moreover, researchers found that integration activities lead to cost savings and a reduction of needed resources (Homburg & Bucerius, 2005). Nonetheless, the acquired company has to accept new processes and procedures (Zollo & Singh, 1998). These changes affect the innovation output of the target firm (Paruchuri et al., 2006). Moreover, the integration of a large number of capabilities can ruin existing innovative operations and hamper and complicate various integration stages (Capron & Mitchell, 2000). Nonetheless, basic common tasks between the buyer and target must be elaborated to guarantee a minimum level of resource and capability transfer and sharing (Christensen et al., 2011). Shrivastava (1986) pointed out that the integration of fundamental systems and procedures of combined organizations is necessary to enhance productivity. Therefore, a certain level of task integration is needed. In summary, it can be said that the integration of basic tasks of the involved companies enhances knowledge transfer, which is essential for creating synergies. As task integration simplifies knowledge transfer that affects the innovation output, we argue that:

**Hypothesis 2.** Task integration is positively related to innovation outcome.

### 3.2. Moderating effects

Cultural differences contribute to the success and failure of M&A (Child et al., 2000; Hitt, Ireland, Camp, & Sexton, 2001; Larsson & Finkelstein, 1999). However, there are direct and indirect effects of cultural differences on the performance of a transaction (Reus & Lamont, 2009). Empirical research is mixed about the direct and indirect effects of national cultural differences on performance (Slangen, 2006). While most studies consider the national cultural fit between the merging companies to be vital for integration and the success of M&A (Weber, 1996), there is also empirical evidence for the beneficial effects of cultural differences (Morosini et al., 1998). Managers increasingly consider cultural problems in cross-border M&A (Evans, Pucik, & Barsoux, 2002), accept national cultural differences, and are willing to evolve a shared understanding (Goulet and Schweiger, 2006). Additionally, if the knowledge stocks of both organizations are different, the likelihood of redundant resources is lower. Consequently, national cultural differences could minimize conflicts during integration (Sarala, 2010). Furthermore, national cultural differences allow for different mental views that enhance innovation and new-product development (Nielsen & Gudergan, 2012). Morosini et al. (1998) propose two ways through which to access routines and repertoires via the acquisition of a company in another national culture: learning (i.e., companies in some cultures cannot develop certain routines that are shaped by other, specific cultural influences) and specialization (i.e., accessing routines that are specialized to a specific local context). In countries with large cultural differences, it is possible for companies to have different sets of practices and routines from which the combined entity will benefit (Kogut & Singh, 1988). These practices and routines are often related to inventiveness, innovation and new usable practices (Morosini et al., 1998). Furthermore, cultural distant companies may also have access to a diversity of perspectives and knowledge, and new product discoveries and innovations may provide a potentially positive effect (Nielsen & Gudergan, 2012). Cloudt et al. (2006) found a positive influence of cultural differences on the post-M&A innovative performance of the acquiring company. Thus, different national cultures may intensify

innovation and new solutions and establish technological skills by using a multitude of routines, practices and ideas from the firms' environments (Barkema & Vermeulen, 1998; Larsson & Finkelstein, 1999).

Extensive national cultural differences, however, may also lead to cultural ambiguity, process losses when cultures collide, and higher degrees of conflict in day-to-day operations after the acquisition (Morosini et al., 1998). National cultural differences can impact identity-building processes leading to in-group versus out-group biases that can amplify uncertainty and ambiguity about the future, causing distrust and social conflict (Vaara, Sarala, Stahl, and Björkman, 2012). These detrimental effects are dependent on steps taken during the post-acquisition phase (Haspeslagh and Jemison, 1991). If unaddressed, mutually reinforcing distrust, for instance, can lead to irreparably damaged relationships between members of the acquired and target firms (Stahl & Sitkin, 2005). Hence, without the undertaking of any integration steps, national cultural differences might negatively influence performance. Conflicts that arise from national cultural differences are not a necessity; there are numerous practices (e.g., HR practices) that can reduce conflicts and help transfer capabilities (Weber et al., 2011b; Weber & Tarba, 2010). With effective integration mechanisms in place, national cultural differences enhance performance. Morosini et al. (1998) could show empirically that national cultural differences are particularly relevant for routines and repertoires related to inventiveness, innovation, entrepreneurship, and decision-making. As theory and empirical evidence provide us with two different directions, our following hypotheses are argued for both directions:

**Hypothesis 3a<sub>1</sub>.** National cultural differences have a positive moderating effect on the relationship between human integration and the innovation outcome of the combined company.

**Hypothesis 3a<sub>2</sub>.** National cultural differences have a negative moderating effect on the relationship between human integration and the innovation outcome of the combined company.

And:

**Hypothesis 3b<sub>1</sub>.** National cultural differences have a positive moderating effect on the relationship between task integration and the innovation outcome of the combined company.

**Hypothesis 3b<sub>2</sub>.** National cultural differences have a negative moderating effect on the relationship between task integration and the innovation outcome of the combined company.

In both cases—for Hypotheses 3a<sub>1</sub>/3a<sub>2</sub> and 3b<sub>1</sub>/3b<sub>2</sub>, we propose a U-shaped or an inverted U-shaped relationship, as differences are possible on both sides. A value of zero for cultural differences means that the cultures are similar.

## 4. Methodology

### 4.1. Data and sources

For the construction of our sample, we used the Zephyr database of the Bureau van Dijk Electronic Publishing GmbH. The population of the research consists of M&A transactions that took place between early 2007 and late 2010. We have chosen this period to guarantee that the integration is either in the final stage or is already completed. The total population was limited according to the deal value (maximum 200 million Euros) and the countries of the target companies. We have chosen targets from the German-speaking part of central Europe (Germany, Austria and Switzerland), with acquirers from all over the world. We deleted M&A, which were mainly based on reorganizations

(e.g., holding-constructions) or simple financial transactions. The final number of transactions for the total population in this study was 712. We have chosen top managers from the targets as respondents for our study, as they tend to be most knowledgeable about the integration process itself (Homburg & Bucerius, 2006). We would have preferred to interview managers from both corresponding firms, but due to the fact that we investigate cross-border M&A, we argue that the target executive is more knowledgeable about the integration itself than the CEO of the acquirer seated in another country. Thus, it was a necessary precondition that the requested target executives had already been in the target firm during the transaction. Due to managerial turnover, we were not always able to identify a suitable person through desk research. For those cases, we requested the addressed CEO to forward the questionnaire to somebody in charge who fitted our requirements. To guarantee sufficient clarity in our survey instrument, we conducted a pretest in February 2013. Five participants from different sectors such as banking, jurisprudence and academia helped us to improve our survey instrument with a two-step pretest (Churchill & Peter, 1984). All respondents were experts in the M&A field and were experienced in empirical research.

The questionnaire was mailed to the target companies' managers at the end of February 2013. After three weeks, 14 completed questionnaires had been returned. In late March, we started to conduct follow-up phone calls and sent out reminder e-mails. Respondents then had the opportunity to complete the questionnaire via telephone or through an online questionnaire. In mid-April, 85 questionnaires had been obtained. Through additional phone calls, e-mail reminders, and direct interviews, we were able to generate 103 completed questionnaires. This reflects a response rate of 14.47%. Due to the high positions of the requested managers (respondents were CEOs, CFOs, or heads of corporate-development departments), and our selection criteria for the sample, we believe that our response rate is sufficient and is in line with other primary data research in M&A (e.g., Bresman, Birkinshaw, and Nobel, 1999; Capron, 1999; Homburg & Bucerius, 2006). The key informants' reasons for not participating in the survey included lack of time or interest or inability to meet criteria. As mentioned above, M&A diverge according to their underlying motives and therefore with regards to the intention to integrate. To reach a homogenous sample of acquisitions with the intention to acquire knowledge, we only selected those acquisitions in which innovation and access to innovative capabilities were a major motive. From 103 questionnaires, 52 cases remained. Even though our sample size seems to be a limitation, it is first, according to Milton's sample-size formula (1986), sufficient to investigate our underlying hypotheses and equal to other research in this field (Morosini et al., 1998). Second, the number of inbound M&A in the German-speaking part of Europe is rather small, and our data reflects official inbound deal statistics (e.g., Bloomberg).

## 4.2. Variables and measurement

Scales from existing M&A research were used as a basis for the research-model development.

### 4.2.1. Innovation outcome

The relationship between M&A activities and innovation is broadly discussed in literature (Colombo & Rabbiosi, 2014). Previous work explored the relationship between M&A and innovation input (e.g., R&D expenses), innovation processes, and innovation output. Blonigen and Taylor (2000), for instance, study the relationship between R&D intensity and acquisition activity. Other studies look at the impact of M&A on the R&D processes (e.g.

Cassiman et al., 2005) or the role of knowledge bases for post-M&A innovative performance (e.g. Cloodt et al., 2006). Further, it was also studied whether and how M&A influences patenting quantity and quality (Valentini, 2012). Many studies count the number or value of patents to measure a company's innovation (Ahuja & Katila, 2001; Prabhu et al., 2005; Cloodt et al., 2006). However, patents have strengths and weaknesses to measure innovation output. Patents provide a measure for technical knowledge (Prabhu et al., 2005) and are linked directly to inventiveness (Ahuja & Katila, 2001). However, patents are mostly related to codified knowledge (Adams, Bessant, & Phelps, 2006), and some inventions are not patentable. The input value of patents cannot be assessed appropriately in terms of cash price (Griliches, 1990). Furthermore, as some firms might decide for strategic reasons to avoid patent applications, some patented knowledge is never implemented (Jaffe & Trajtenberg, 2005). Therefore, this study used the construct and items developed by Nielsen and Gudergan (2012) that consist of two items, where the respondents had to rate on a seven-point Likert scale their increase in know-how and technology-transfer for certain product categories and their increase in products and process innovation (1 = no increase; 4 = partial increase; 7 = high increase).

### 4.2.2. Human integration

This work defines human integration as the creation of a shared identity and satisfaction among the employees from both organizations (Birkinshaw et al., 2000). We adopted the measurement model developed by Cording et al. (2008) to assess human integration with the three following items: organizational structure, organizational culture and personnel management practices (HR). On a seven-point Likert scale, respondents ranked how the various items changed after the transaction (1 = no change; 4 = partial change; 7 = complete change).

### 4.2.3. Task integration

Task integration is defined as resource sharing and the transfer of capabilities (Birkinshaw et al., 2000; Stahl & Voigt, 2008). Cording et al.'s (2008) measurement was used to gauge task integration. Task integration consists of production, marketing and system integration. Production integration consists of production and supply sources (two items). Marketing integration consists of distribution channels, sales/after-sales service and marketing programs (three items). Finally, system integration is composed of strategic planning systems, financial and budget systems, and management information systems. A seven-point Likert scale was chosen to rank how the various items of task integration changed after the transaction (1 = no change; 4 = partial change; 7 = complete change).

### 4.2.4. Cultural differences

Several authors have specified and quantified national cultural differences among various dimensions (Hofstede, 1980; Trompenaars & Hampen-Turner, 1997; House et al., 2004). Even though Hofstede's study has been widely criticized (McSweeney, 2002; Baskerville, 2003; Baskerville-Morley, 2005), we applied Hofstede's measures for four reasons: First, Hofstede's dimensions are widely accepted and used across the different management disciplines (Sivakumar & Nakata, 2001; Kirkman, Lowe, & Gibson, 2006). Second, Hofstede's dimensions are commonly used in M&A literature to measure national cultural differences (Weber, Shenkar, & Raveh, 1996; Morosini et al., 1998; Slangen, 2006; Chakrabarti et al., 2009). Third, Hofstede's dimensions are available for a large number of countries. Fourth, there is empirical evidence that the Hofstede measures closely correlate with other measurements, and the results are essentially similar (Sarala, 2010).

Furthermore, many studies have approved their validity (Sondergaard, 1994; Van Oudenhoven, 2001).

Four dimensions were applied to measure the national cultural differences: power distance, individualism versus collectivism, masculinity versus femininity and uncertainty avoidance. An index of national cultural differences was constructed based on these four dimensions. Following Kogut and Singh's approach (1988), the index of national cultural differences used in this study expresses the aggregate national cultural distance of the two countries. This index relies on the differences in each dimension of Hofstede's country scores:

$$\text{cultural distance} = \sum_{i=1}^4 \left\{ \frac{(I_{ij} - I_{iu})^2}{V_i} \right\}$$

where  $I_{ij}$  is Hofstede's score for the  $i$  cultural dimension and the  $j$  target country, and where  $I_{iu}$  stands for Hofstede's score for the  $i$  cultural dimension and the  $u$  buyer country.  $V_i$  is the variance of the  $i$  dimension.

4.2.5. Control variables

As there are other possible influencing factors, we implemented various control variables, since they are useful to test for third variables (Bryman & Cramer, 2005). We applied control variables, which are regularly used in the context of international M&A research and could have a serious impact on our research model. The control variables industry growth, sales of the combined entity, relative size and acquisition experience were measured with single items. Industry growth was chosen, as there is empirical evidence that industry growth affects the degree of integration (Bauer & Matzler, 2014). Annual sales and acquisition experience are both indicators for developed acquisition routines (Barkema & Schijven, 2008). Relative size is an important control variable, as smaller entities are easier to absorb after the acquisition than equal entities.

5. Results

Table 1 shows the descriptive data of our research. It includes the seat of the buying and target companies summarized by their corresponding continent, the type of industry, the average growth, the relative size, the annual sales of the combined company, and the experience of the acquirers in M&A transactions. In sum, the acquirers came from 19 different countries, and our data reflects official statistics with regards to inbound M&A (e.g., Bloomberg).

Table 1  
Descriptive statistics.

Sample description					
Buyer	Target			Relative size	
	Germany	Austria	Switzerland		
Europe	18	10	6	<25%	47.7
North America	3	2	1	25–49%	25
South America	1	1	1	50–74%	11.4
Asia	2	1	1	75–100%	9.1
Not specified	2	2	1	>100%	6.8
Revenue of combined entity			Average industry growth		
<25 Mio. €			11.4	>–15%	4.5
25–49 Mio. €			25.0	–15 to –5%	4.5
50–99 Mio. €			20.5	–4–0%	0
100–249 Mio. €			25.0	1–5%	38.6
>250 Mio. €			19.2	6–10%	45.5
				11–20%	4.5
				>21%	2.3

5.1. Test for potential biases

As we used self-reported data to assess our independent and dependent variable at the same time and from the same individual, there is a potential source for common-method variance in our data (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To control and to test for common-method variance, we first reversed some items in our questionnaire to avoid response patterns that could affect our data; second, we separated some of our variables to eliminate proximity effects (Podsakoff, MacKenzie, & Podsakoff, 2012). Third, the scales of our latent variables are not similar in content, and all cognitive constructs were measured with multiple items (Harri-son, Mclaughling, & Coalter, 1996). Fourth, to assess common-method variance, we applied Harman's Single-Factor Test to all questions of our survey instrument (Podsakoff & Organ, 1986). With an exploratory factor analysis, 14 different factors were identified, with the strongest factor explaining 23.17% of the variance. Therefore, we conclude that common-method variance and bias is not a serious problem for our data.

External validity is given, since there is no evidence for a potential non-sampling, late or non-response, item non-response, or different-stroke bias. However, a potential key-informant bias cannot be fully excluded and will be discussed in the limitations.

5.2. Assessment of the measurement models

To measure reliability, we compounded Cronbach's alpha for each latent variable and tested if the recommended threshold of 0.7 was reached. This was the case for all constructs. Furthermore, construct validity is given due to average variance-extracted (AVE) values above 0.5. Construct measurement, items and reliabilities are reported in Appendix.

Table 2 shows the descriptive statistics and the correlations matrix of the different variables. The correlation between the variables is relatively low, and none is above the 0.65 threshold. Hence, we do not assume that our data is faced with multi-collinearity problems (Tabachnick & Fidell, 1996). Furthermore, we compounded the variance-inflation-factor (VIF) values. The results are far below the recommended threshold, as they range from 1.030 to 1.934. Thus, we conclude that multicollinearity is not a serious problem for our data.

Due to the applied interval scales in our questionnaire, we used OLS regressions. Different models were analyzed to separate the effects of control, independent, and moderating variables. Model 1 reveals that no control variable has a significant effect on our dependent variable. Model 2 included the independent variables, human integration, and task integration. Human integration has a negative effect on innovation outcome ( $\beta = -.319$ ;  $p \leq .10$ ), while task integration has a significant positive effect ( $\beta = .425$ ;  $p \leq .05$ ). Both proposed direct effects (hypothesis 1 and hypothesis 2) could be confirmed with our empirical data.

National cultural distance, implemented in Model 3, has no direct and significant effect on innovation outcome. To assess the proposed moderating effects, namely Hypothesis 3a and b, we first compounded the interaction terms as suggested by Baron and Kenny (1986). Second, we compounded quadratic terms and implemented them with the linear terms as moderators in Model 4 and 5, to test the suggested U-shaped relationships. In Model 4, the regression coefficients for the linear and quadratic terms are both negative ( $\beta = -.643$ ;  $p \leq .01$ ;  $R^2 = .363$ ), which indicates that the moderating effect adopts a downward curvilinear slope (Alexander et al., 1995). Hence, if the target country scores higher in the cultural dimension index than the buyer country, the moderating effect of cultural distance on the relationship of human integration and innovation is worse. Hence, cultural differences have a negative moderating effect on the relationship and become worse

**Table 2**  
Correlations, mean values and standard deviation.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Innovativeness	1											
2. Human integration	-.181	1										
3. Task integration	.216	.565**	1									
4. Cultural distance	-.067	.013	.112	1								
5. Industry growth	-.136	.016	-.093	.135	1							
6. Annual sales	-.156	-.095	-.230	-.253	.195	1						
7. Relative size	.043	-.086	-.052	.030	.000	.007	1					
8. Acquisition experience	.066	.104	.144	-.115	.065	.321*	-.141	1				
9. (3 × 4)	-.224	.148	.002	-.324*	-.094	.084	.125	.042	1			
10. (3 × 4) <sup>2</sup>	-.449**	-.296	-.309*	.416**	.067	-.099	.114	-.315*	.032	1		
11. (2 × 4)	-.226	.169	.137	.105	-.076	-.100	.119	-.083	.536**	.083	1	
12. (2 × 4) <sup>2</sup>	-.413**	-.327*	-.285	.412**	.099	-.092	.225	-.310*	-.055	.871**	.012	1
Mean	4.33	4.67	4.91	1.33	4.43	3.34	2.04	2.69	.12	.86	.01	1.19
STDV	1.56	1.28	1.23	1.13	1.07	1.68	1.26	1.17	.93	1.61	1.10	2.26

\* Significant at  $p < .05$ .  
 \*\* Significant at  $p < .01$ .  
 \*\*\* Significant at  $p < .001$ .

as the target company's country score increases. Model 5 displays the moderation of cultural differences on the relationship between task integration and innovation outcome, which is significantly negative ( $\beta = -.653$ ;  $p \leq .001$ ), and as expected in Hypothesis 3b<sub>2</sub>, results in an inverted U-shaped moderation. Alexander et al. (1995) noted that "significant, negative coefficients for quadratic terms in conjunction with positive estimates for main effects would indicate [...] (effects) in an inverted U-shaped pattern". As a result, we found empirical evidence for a positive interaction effect of similar national cultures of targets and buyers. When comparing our moderating models (Models 4 and 5) with the corresponding baseline Model 2, we always find an increase in the *F*-value (Table 3).

In summary, our empirical results show that the more homogenous the national cultures involved in a transaction are, the better it is for the relationship between human and task integration and the innovation outcome of the combined entity.

**6. Discussion**

In order to contribute to cross-national M&A literature, we have separated the global construct of integration into human and task integration, showing that human integration is negatively related to innovation outcome, whereas task integration is positively related to innovation outcome. This differentiation into different integration aspects is important, as it helps to explain why previous studies on M&A and innovation (that did not distinguish between different types of integration) came to inconclusive findings. We also tested the moderating effects of cultural distance.

**Table 3**  
Results of regression analysis.

Innovation	Model 1	Model 2	Model 3	Model 4	Model 5
Human integration		-.319*	-.303*	-.446*	-.430*
Task integration		.425*	.429*	.328*	.255
Cultural differences			-.251	-.003	.051
Human integration × cultural differences				-.099	
(Human integration × cultural differences) <sup>2</sup>				-.643**	
Task integration × cultural differences					.041
(Task integration × cultural differences) <sup>2</sup>					-.653***
Industry growth	-.089	-.066	-.025	-.006	-.018
Annual sales of combined entity	-.235	-.155	-.218	-.199	-.193
Relative size	.055	.041	.047	.164	.083
Number of prior acquisitions	.188	.101	.102	-.064	-.064
<i>F</i> -value	.639	1.469	1.314	3.279	2.723
Adjusted <i>R</i> <sup>2</sup>	-.042	.064	.058	.363	.301

\* Significant at  $p < .10$ .  
 \* Significant at  $p < .05$ .  
 \*\* Significant at  $p < .01$ .  
 \*\*\* Significant at  $p < .001$ .

In the next section, we discuss the results and limitations of our study and the managerial implications.

**6.1. Theoretical implications**

First, the results of this study indicate that integration is not a one-dimensional construct with a uniform effect on innovativeness. Current literature usually states that innovation rates decrease after transactions (Hitt et al., 1990) due to acquisition integration (Puranam et al., 2006). This is in line with Christensen et al. (2011), who argues that if the motive of the transaction is to change or complement the business model, the acquired business model has to be kept intact, and little or no integration is therefore necessary. Nonetheless, the separation of human and task integration provides us with new insights, as we found empirical evidence that human integration has negative effects on innovation after the acquisition, while task integration is beneficial. We conclude that human integration interrupts organizational structures and culture in a way that well-established routines are destroyed, and, due to a loss of resources and coordination flexibility, organizational resistance is a consequence (Sarala et al., 2014). Here we are in line with previous research that states that through integration, valuable organizational routines are usually changed, which may weaken innovative capabilities (Ranft & Lord, 2002; Benner & Tushman, 2003). Nonetheless, our results diverge from Puranam et al. (2009) who state that structural integration may disrupt innovative capabilities because of the removal of autonomy. Our results indicate the necessity of at least a certain



degree of task integration while simultaneously keeping a maximum of flexibility with regards to employees. We argue that this integration is necessary for resource- and capabilities-sharing and transferring in order to make use of the proposed synergies in terms of innovation and technology.

Second, our research shows the importance of national cultural aspects in M&A. We found empirical evidence that national cultural similarities between the target country and buyer country have a positive moderating effect on the integration innovation-outcome relationship. This is in line with the cultural-fit literature in M&A. Weber et al. (1996) stated that national cultural fit is essential for the effectiveness of integration. We find empirical evidence that cultural differences have no direct effect on innovation outcome but rather weaken the relationship from integration to innovation. This effect is in line with Slangen's (2006) study, who concluded that research must simultaneously investigate the level of integration and cultural distance. Hence, it is more beneficial – when planning to integrate – that the cultural environments of the combining firms are similar to some extent, as cultural differences deteriorate the negative effect of human integration and weaken the beneficial effect of task integration on the innovation outcome. As a result, it could be argued that the more homogenous the different countries of a transaction are, the better it is for the integrative relationship and the innovativeness of the combined entity.

Our results are contrary to authors that claim that M&A with culturally distant firms increase performance (Chakrabarti et al., 2009) and that cultural differences provide opportunities, which enhance innovation (Nielsen & Gudergan, 2012). One major reason for this different effect could be found in our sample. We investigated target firms from the German-speaking part of central Europe, which includes countries that are highly developed in terms of innovation and economic prosperity. The negative moderating effect could be different for targets from less-developed countries. This assumption is in line with Weber et al. (1996) who state that cultural differences have asymmetric effects.

Thus, further research should build on the separation of human and task integration while simultaneously investigating national cultural differences in future empirical research projects. Furthermore, the assumed asymmetric effect of cultural differences should be investigated by comparing different constellations of targets and buyers. Finally, it could be beneficial to analyze different cultural dimensions separately to gain more insights.

## 6.2. Managerial implications

This study is also relevant for managers. A first managerial implication arises from the findings about integration. If the aim of the transaction is to replace, extend, or complement the business model, human integration should be undertaken carefully—or not at all. Firms have to evaluate if the proposed beneficial effects outweigh the negative consequences, namely the destruction of innovative capabilities. Firms with the intention to innovate should start with task integration, as a certain degree of task integration is beneficial for resources and know-how transfer and sharing. However, this should be done with caution, as disruptive changes affect human autonomy and flexibility.

Second, cultural differences matter in M&A. The more homogeneous the countries, the better it is for the effects of integration on innovativeness. Cultural differences have a negative influence on innovativeness (Ernst & Vitt, 2000; Kostova, 1999). Managers should therefore look for companies in countries with similar cultural environments when the motive of the acquisition is innovation. Various cultural areas fit better together, as opposed to countries with different cultural environments; thus, cultural fit is essential (Weber et al.,

1996), and the similarity between national cultures has a positive influence on the success of M&A (Oudenhoven & Zee, 2002). Hence, managers should focus on certain cultural environments that are similar to their own. M&A between countries that are culturally distant from their own may decrease innovativeness as well as bring about a negative impact.

## 7. Limitations

Like many other primary-data studies in the M&A field, one limitation of this study refers to the capacity of recollection, as it takes three to five years to measure the outcome of a transaction (Homburg & Bucerius, 2006). When attempting to collect reliable measurements for M&A research, the problem of recollection cannot be excluded, because the capacity for remembering decreases exponentially (Sudmann & Bradburn, 1973). However, our study mainly focuses on integration issues; thus, we conclude that the decreasing capacity of recollection is not a serious problem for our research.

A further methodical limitation may be that respondents tend to assess the situation more positively in the long-run (Golden, 1992). Even though we found no differences in the provided information from the respondents in our survey with regards to performance, compared to the success and failure rates mentioned in M&A literature, a key informant bias cannot be excluded completely. Therefore this potential bias has to be considered when interpreting the outcomes of this study. In addition, the respondents were from the target firms. The consultation of both partners in the transactions would better reflect the integration of both units and the innovation outcome.

Furthermore, the statistical power and the number of the respondents can be seen as a limitation. The number of observations ( $n = 52$ ) is rather small, and a higher number of respondents could have had a positive effect on the significance level. Nonetheless, we argue that our sample size is big enough to test the proposed effects in a proper manner (Milton, 1986).

A further limitation concerns the measurement of innovation outcome. Various studies related to innovation output or knowledge transfer use patents or new products as means of measurement (Ahuja & Katila, 2001; Prabhu et al., 2005; Cloodt et al., 2006). This was not possible for this study, as we had no access to relevant data. Therefore, we relied on an existing measurement scale for innovation outcome. However, this construct was measured with only two items. Although, the construct was reliable and valid, for such a complex phenomenon as innovation, more-complex scales to capture the multi-dimensionality of organizational innovativeness should be used (e.g., Wang & Ahmed, 2004).

To measure cultural differences, Hofstede's dimensions were used, which are widely criticized (McSweeney, 2002; Baskerville, 2003, 2005). However, they are still used across different management disciplines (Sivakumar & Nakata, 2001; Kirkman et al., 2006), and their effects are equal to other measures (Sarala, 2010). Moreover, cultural distance was calculated with the Kogut and Singh (1988) Index, which assumes that there are no intra-country differences in culture and that over time the cultural distance between the countries is constant (Shenkar, 2001). Furthermore, given that this empirical research is a cross-sectional study, nothing can be said about the long-term effect of country differences. This would require a longitudinal study design. Furthermore, the time period chosen may be a limitation for this study. Different M&A waves have specific characteristics, and they were not considered in the selection sample. In the time period chosen, an economic crisis occurred, which reduced the amount and value of M&A transactions (Kunisch, 2009). Hence, this has to be considered when interpreting the results.



Another limitation refers to the regional restriction of the target companies, because only Germany, Austria, and Switzerland were selected as seats for target companies. As these countries are highly developed, the effects of cultural differences could be asymmetric, if the target firms were from less-developed countries. With regards to our implications, this fact should be taken into consideration.

## Appendix A. Appendix

Constructs	Indicators	Loadings	Alpha	Extracted variance
Human integration	Please indicate the degree to which the following items or areas were changed at the target after the acquisition, 1, "not at all"; 7, "completely changed"		0.86	0.78
	Organizational structure	0.84		
	Organizational culture	0.94		
	Personnel Management Practices	0.88		
Task integration	Please indicate the degree to which the following items or areas were changed at the target after the acquisition, 1, "not at all"; 7, "completely changed"		0.85	0.77
	>Production	0.89		
	>Marketing	0.88		
>Support systems	The average of: (a) strategic planning systems, (b) financial and budget systems, and (c) management information (Alpha: .896)	0.87		
	Innovation outcome	Please indicate how the following issues have changes after the acquisition (1, "strong negative development"; 4, "no changes"; 7, "strong positive development")	0.81	0.84
	Know-how and technology transfer	0.92		
	Product and process innovation	0.92		

## References

- Adams, R., Bessant, J., & Phelps, R. (2006). Innovation management measurement: A review. *International Journal of Management Reviews*, 8(1), 21–47.
- Ahuja, G., & Katila, R. (2001). Technological acquisitions and the innovation performance of acquiring firms: A longitudinal study. *Strategic Management Journal*, 22(3), 197–220.
- Alexander, J., Nuchols, B., Bloom, J., & Lee, S. Y. (1995). Organizational demography and turnover: An examination of multiform and nonlinear heterogeneity. *Human Relations*, 48(00), 1455–1480.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20–39.
- Bartlett, C. A., & Ghosal, S. (2002). *Managing across borders: The transnational solution*. Harvard: Harvard Business School Press.
- Barkema, H. G., & Vermeulen, F. (1998). International expansion through start-up or acquisition: A learning perspective. *Academy of Management Journal*, 41(1), 7–26.
- Barkema, H. G., & Schijven, M. (2008). How do firms learn to make acquisitions? A review of past research and an agenda for the future. *Journal of Management*, 35, 594–634.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 30(6), 1173–1182.
- Baskerville-Morley, R. F. (2005). A research note: The unfinished business of culture. *Accounting, Organizations and Society*, 30(4), 389–391.
- Baskerville, R. F. (2003). Hofstede never studied culture. *Accounting, Organizations and Society*, 28(1), 1–14.
- Baskerville, R. F. (2005). A research note: The unfinished business of culture. *Accounting, Organizations and Society*, Band, 30, 389–391.
- 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.
- Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *The Academy of Management Review*, 28(2), 238–256.
- Bertrand, O., & Zuniga, P. (2006). R&D and M&A: Are cross-border M&A different? An investigation on OECD countries. *International Journal of Industrial Organization*, 24, 401–423.
- 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.
- Björkman, I., Stahl, G. K., & Vaara, E. (2007). Cultural differences and capability transfer in cross-border acquisitions: The mediating roles of capability complementarity, absorber capacity, and social integration. *Journal of International Business Studies*, 38(4), 658–672.
- Blonigen, B. A., & Taylor, C. T. (2000). R&D intensity and acquisitions in high-technology industries: Evidence from the US electronic and electrical equipment industries. *The Journal of Industrial Economics*, 48, 47–70.
- Bower, J. L. (2004). When we study M&A, what are we learning? In A. Pablo, M. Javidan (Eds.), *Strategic management society book series: Mergers and acquisitions—Creating integrative knowledge* (pp. 235–244). Malden, MA: Blackwell Publications.
- Bresman, H., Birkinshaw, J., & Nobel, R. (1999). Knowledge transfer in international acquisitions. *Journal of International Business Studies*, 30(3), 439–462.
- Bresman, H., Birkinshaw, J., & Nobel, R. (2010). Knowledge transfer in international acquisitions. *Journal of International Business Studies*, 41(1), 5–20.
- Bryman, A., & Cramer, D. (2005). *Quantitative data analysis with SPSS 12 and 13: A guide for social scientists*. New York, NY: Psychology Press.
- Buono, A. F., Bowditch, J. L., & Lewis, J. W. (1985). When cultures collide: The anatomy of merger. *Human Relations*, 38(5), 477–500.
- Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal*, 20(11), 987–1018.
- 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(April), 41–54.
- Capron, L., & Mitchell, W. (2000). Internal versus external knowledge sourcing: Evidence from telecom operators in Europe. In *Working paper*. Band INSEAD.
- Capron, L., & Guillen, M. (2009). National corporate governance institutions and post-acquisitions target reorganization. *Strategic Management Journal*, 30, 803–833.
- Cartwright, S., & Cooper, C. L. (1996). *Managing mergers, acquisitions and strategic alliances: Integrating people and cultures*. Oxford, UK: Butterworth-Heinemann.
- Cartwright, S., & Cooper, C. L. (1992). *Mergers and acquisitions: The human factor*. Oxford, UK: Butterworth-Heinemann.
- Cassiman, B., Colombo, M., Garrone, P., & Veugelers, R. (2005). The impact of M&A on the R&D process—An empirical analysis of the role of technological and market relatedness. *Research Policy*, 34, 195–220.
- Cassiman, B., & Ueda, M. (2006). M&A and innovation: A conceptual framework. In B. Cassiman & M. G. Colombo (Eds.), *Mergers and acquisitions: The innovation impact*. Cheltenham: Edward Elgar Publishing Limited.
- Chakrabarti, A. K., Hauschildt, J., & Süverkrüp, C. (1994). Does it pay to acquire technological firms? *R&D Management*, 24(1), 47–56.
- 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.
- Child, J., Faulkner, D., & Pitkethly, R. (2000). Foreign direct investment in the UK 1985–1994: The impact on domestic management practice. *Journal of Management Studies*, 37(1), 141–166.
- Chaudhuri, S., & Tabrizi, B. (1999). Capturing the real value in high-tech acquisitions. *Harvard Business Review*, 77(5), 123–130.
- Christensen, C. M., Alton, R., Rising, C., & Waldeck, A. (2011). The big idea: The new M&A playbook. *Harvard Business Review*, 89(Marc), 48–57.
- Churchill, G. A. J., & Peter, P. (1984). Research design effects on the reliability of rating scales: A meta-analysis. *Journal of Marketing*, 21(4), 360–375.
- Cloodt, M., Hagedoorn, J., & Kranenburg, v. H. (2006). Mergers and acquisitions: Their effect on the innovative performance of companies in high-tech industries. *Research Policy*, 35(5), 642–654.
- Colombo, M. G., & Rabbiosi, L. (2014). Technological similarity, post-acquisition R&D reorganization, and innovation performance in horizontal acquisitions. *Research Policy*, 43(6), 1039–1054.
- Cording, M., Christmann, P., & King, D. R. (2008). Reducing causal ambiguity in acquisition integration: Intermediate goals as mediators of integration decisions and acquisition performance. *Academy of Management Journal*, 51(4), 744–767.

- Datta, D., & Grant, J. H. (1990). Relationships between type of acquisition, the autonomy given to the acquired firm, and acquisition success: An empirical analysis. *Journal of Management*, 16(1), 29–44.
- Datta, D., & Paiva, G. (1995). Cross-border acquisitions: An examination of the influence of relatedness and cultural fit on shareholder value creation in U.S. acquiring firms. *Management International Review*, 35(4), 337–359.
- Ellis, K. M., Reus, T. H., & Lamont, B. T. (2009). The effects of procedural and informational justice in the integration or related acquisitions. *Strategic Management Journal*, 30(2), 137–161.
- Ernst, H., & Vitt, J. (2000). The influence of corporate acquisitions on the behaviour of key investors. *R&D Management*, 30(2), 105–119.
- Evans, P., Pucik, V., & Barsoux, J. L. (2002). *The global challenge: Frameworks for international human resource management*. New York, NY: McGraw-Hill/Irwin.
- Gerpott, T. J. (1995). Successful integration of R&D functions after acquisitions: An exploratory study. *R&D Management*, 25(2), 161–178.
- Golden, B. R. (1992). The past is the past—Or is it? The use of retrospective accounts as indicators of past strategy. *Academy of Management Journal*, 35(3), 848–860.
- Gomes, E., Angwin, D. N., Weber, Y., & Tarba, S. (2013). Critical success factors through the mergers and acquisitions process: Revealing pre- and post-M&A connections for improved performance. *Thunderbird International Business Review*, 55, 13–35.
- Goulet, P., & Schweiger, D. M. (2006). Managing culture and human resources in mergers and acquisitions. In G. K. Stahl & I. Björkman (Eds.), *Handbook of research in international human resource management* (pp. 405–429). London: Edward Elgar Ltd.
- 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.
- Griliches, Z. (1990). Patent statistics as economic indicators: A survey. *Journal of Economic Literature*, 28(4), 1661–1707.
- Grimpe, C., & Hussinger, K. (2013). Resource complementarity and value capture in firm acquisitions: The role of intellectual property rights. *Strategic Management Journal*. <http://dx.doi.org/10.1002/smj.2181>
- Grotenhuis, F. D. (2001). Marriages between Asian, American, and Dutch corporations: A matter of cultural fit? *Review of Pacific Basin Financial Markets and Policies*, 4(2), 203–220.
- Häkkinen, L., Norrman, A., Hilmola, O. P., & Ojala, L. (2004). Logistics integration in horizontal mergers and acquisitions. *The International Journal of Logistics Management*, 15(1), 27–42.
- Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. *Journal of Management*, 35(3), 469–502.
- Harrison, D. A., McLaughlin, R. E., & Coalter, T. M. (1996). Context, cognition, and common method variance: Psychometric and verbal protocol evidence. *Organization Behaviour and Human Decision Processes*, 68(3), 246–261.
- Haspeslagh, P. C., & Jemison, D. B. (1991). *Managing acquisitions*. New York, NY: Simon & Schuster.
- Hinds, P. J., & Mortensen, M. (2005). Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication. *Organization Science*, 16(3), 290–307.
- Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. (1990). Mergers and acquisitions and managerial commitment to innovation in M-Form firms. *Strategic Management Journal*, 11, 29–47.
- Hitt, M. A., Ireland, R. D., Camp, M. S., & Sexton, D. L. (2001). Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22, 479–491.
- Hitt, M. A., Franklin, V., & Zhu, H. (2006). Culture, institutions and international strategy. *Journal of International Management*, 12, 222–234.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. London: Sage Publications.
- Hofstede, G. (2001). *Culture's consequences* (2nd ed.). Thousand Oaks, London, New Delhi: Sage Publications.
- Homburg, C., & Bucerius, M. (2005). A marketing perspective on mergers and acquisitions: How marketing integration affects postmerger performance. *The Journal of Marketing*, 69(1), 95–113.
- Homburg, C., & Bucerius, M. (2006). Is speed of integration really a success factor of mergers and acquisitions? An analysis of the role of internal and external relatedness. *Strategic Management Journal*, 27(4), 347–367.
- House, R. J. et al. (2004). *Culture, leadership and organizations: The GLOBE study of 62 societies*. Thousand Oaks, London, New Delhi: Sage Publications.
- Howell, R. A. (1970). Plan to integrate your acquisitions. *Harvard Business Review*, 48(6), 66–76.
- Jaffe, A. B., & Trajtenberg, M. (2005). *Patents, citations, and innovations: A window on the knowledge economy*. Boston, MA: MIT Press.
- Jemison, D., & Sitkin, S. (1986). Corporate acquisitions: A process perspective. *The Academy of Management Review*, 11(1), 145–163.
- King, D. R., Covin, J. G., & Hegarty, W. H. (2003). Complementary resources and the exploitation of technological innovations. *Journal of Management*, 29(4), 589–606.
- King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004). Meta-analyses of post-acquisition performance: Indications of unidentified moderators. *Strategic Management Journal*, 25(2), 187–200.
- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of Culture's consequence: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, 37(3), 285–320.
- Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19, 411–432.
- Kostova, T. (1999). Transnational transfer of strategic organizational practices: A contextual perspective. *The Academy of Management Review*, 24(2), 308–324.
- Kunisch, S. (2009). Der deutsche M&A-Markt 2008—Im Zeichen der Finanzkrise. *M&A Review*, 2, 47–55.
- Larsson, R., & Risberg, A. (1998). Cultural awareness and national versus corporate barriers to acculturation. In M. Gertsen, A. Sönderberg, & J. Torp (Eds.), *Cultural dimensions of international mergers and acquisitions* (pp. 39–56). Berlin: Walter de Gruyter.
- Larsson, R., & Finkelstein, S. (1999). Integrating strategic, organizational, and human resource perspective on mergers and acquisitions: A case study of synergy realization. *Organization Science*, 10(1), 1–26.
- Makri, M., Hitt, M. A., & Lane, P. J. (2010). Complementary technologies, knowledge relatedness, and invention outcomes in high technology mergers and acquisitions. *Strategic Management Journal*, 31, 602–628.
- McSweeney, B. (2002). Hofstede's model of national cultural differences and their consequences: A triumph of faith—A failure of analysis. *Human Relations*, 55(1), 89–118.
- Morosini, P., Shane, S., & Singh, H. (1998). National cultural distance and cross-border acquisition performance. *Journal of International Business Studies*, 19(1), 137–158.
- Milton, S. (1986). A sample size formula for multiple regression studies. *Public Opinion Quarterly*, 50, 112–118.
- Nahavandi, A., & Malekzadeh, A. R. (1988). Acculturation in mergers and acquisitions. *Academy of Management Review*, 13(1), 79–90.
- Nielsen, B. B., & Gudergan, S. (2012). Exploration and exploitation fit and performance in international strategic alliances. *International Business Review*, 21(4), 558–574.
- Olie, R. (1994). Shades of culture and institutions in international mergers. *Organization Studies*, 15(3), 381–405.
- Oudenhoven, v. J. P., & Zee, v. d. K. I. (2002). Successful international cooperation: The influence of cultural similarity, strategic differences, and international experience. *Applied Psychology: An International Review*, 51(4), 633–653.
- Pablo, A. L. (1994). Determinants of acquisition integration level: A decision-making perspective. *The Academy of Management Journal*, 37(4), 803–836.
- Paruchuri, S., Nerkar, A., & Hambrick, D. (2006). Acquisition integration and productivity losses in the technical core: Disruption of inventors in acquired companies. *Organization Science*, 17(5), 545–562.
- Prabhu, J. C., Chandy, R. K., & Ellis, M. E. (2005). The Impact of Acquisitions on Innovation: Poison pill, placebo, or tonic? *Journal of Marketing*, 69(1), 114–130.
- Puranam, P., Singh, H., & Chaudhuri, S. (2009). Integrating acquired capabilities: When structural integration is (un)necessary. *Organization Science*, 20(2), 313–328.
- 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.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method bias in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 65, 539–569.
- Ranft, A. L., & Lord, M. D. (2002). Acquiring new technologies and capabilities: A grounded model of acquisition implementation. *Organizational Science*, 13(4), 420–441.
- Reus, T. H., & Lamont, B. T. (2009). The double-edged sword of cultural distance in international acquisitions. *Journal of International Business Studies*, 40(8), 1298–1316.
- Roth, K., Schweiger, D. M., & Morrison, A. J. (1991). Global strategy implementation at the business unit level: Operational capabilities and administrative mechanisms. *Journal of International Business Studies*, 22(3), 369–402.
- Sarala, R. M. (2010). The impact of cultural differences and acculturation factors on post-acquisition conflict. *Scandinavian Journal of Management*, 26, 38–56.
- Sarala, R. M., Junni, P., Cooper, G. L., & Tarba, S. Y. (2014). A sociocultural perspective on knowledge transfer in mergers and acquisitions. *Journal of Management*. <http://dx.doi.org/10.1177/0149206314530167>
- Schoenberg, R. (2000). The influence of cultural compatibility within cross-border acquisitions: A review. *Advances in Mergers Acquisitions*, 1, 43–59.
- Schweiger, D. M., & Goulet, P. K. (2005). Facilitating acquisition integration through deep-level cultural learning interventions: A longitudinal field experiment. *Organizational Studies*, 26(10), 1477–1499.
- Shenkar, O. (2001). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, 32(3), 519–535.
- Shimizu, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management*, 10(3), 307–353.
- Shrivastava, P. (1986). Postmerger integration. *Journal of Business Strategy*, 7(1), 65–76.
- Sivakumar, K., & Nakata, C. (2001). The stampede toward Hofstede's framework: Avoiding the sample design pit in cross-cultural research. *Journal of International Business Studies*, 32(3), 555–574.
- Slangen, A. H. (2006). National cultural distance and initial foreign acquisition performance: The moderating effect of integration. *Journal of World Business*, 41(2), 161–170.
- Sondergaard, M. (1994). Hofstede's consequences: A study of reviews, citations, and replications. *Organization Studies*, 15(3), 447–456.

- Stahl, G. K., & Sitkin, S. B. (2005). Trust in mergers and acquisitions. In G. K. Stahl & M. E. Mendenhall (Eds.), *Mergers and acquisitions: Managing culture and human resources*. Stanford, CA: Stanford University Press.
- Stahl, G. K., & Voigt, A. (2008). Do cultural differences matter in mergers and acquisitions? A tentative model and examination. *Organization Science*, 19(1), 160–176.
- Sudmann, S., & Bradburn, N. M. (1973). Effects of time and memory factors on response in surveys. *Journal of the American Statistical Association*, 68(344), 805–815.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics*. New York, NY: Harper Collins College Publishers.
- Teerikangas, S., & Very, P. (2006). The culture-performance relationship in M&A; From Yes/No to How. *British Journal of Management*, 17(1), 31–48.
- Trompenaars, F., & Hampen-Turner, C. (1997). *Riding the waves of culture—Understanding cultural*. Chicago, IL: McGraw-Hill.
- Vaara, E., Sarala, R., Stahl, G. K., & Björkman, I. (2012). The impact of organizational and national cultural differences on social conflict and knowledge transfer in international acquisitions. *Journal of Management Studies*, 49, 1–27.
- Valentini, G. (2012). Measuring the effect of M&A on patenting quantity and quality. *Strategic Management Journal*, 33(3), 336–346.
- Van Oudenhoven, J. P. (2001). Do organization reflect national cultures? A 10-nation study. *Internal Journal of Intercultural Relations*, 25(1), 89–107.
- Vermeulen, F., & Barkema, H. (2001). Learning through acquisitions. *Academy of Management Journal*, 44(3), 457–476.
- 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.
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4), 303–313.
- Weber, Y. (1996). Corporate culture fit and performance in mergers and acquisitions. *Human Relations*, 49(9), 1181–1202.
- Weber, Y., Shenkar, O., & Raveh, A. (1996). National and corporate culture fit in mergers/acquisitions: An exploratory study. *Management Science*, 42(8), 1215–1227.
- Weber, Y., Tarba, S., & Reichel, A. (2009). International mergers and acquisitions performance revisited—The role of cultural distance and post-acquisition integration approach. *Advances in Mergers and Acquisitions*, 8, 1–17.
- Weber, Y., & Tarba, S. Y. (2010). Human resource practices and performance of mergers and acquisitions in Israel. *Human Resource Management Review*, 20, 203–211.
- Weber, Y., Tarba, S., & Reichel, A. (2011a). A model of the influence of culture on integration approaches and international mergers and acquisitions performance. *International Studies of Management and Organization*, 41(3), 9–24.
- Weber, Y., Rachman-Moore, D., & Tarba, S. (2011b). HR practices during post-merger conflict and merger performance. *International Journal of Cross Cultural Management*, 12(1), 73–99.
- Zollo, M., & Singh, H. (1998). The impact of knowledge codification, experience trajectories and integration strategies on the performance of corporate acquisitions. In T. W. School (Ed.), *Working paper*. Philadelphia, PA: University of Pennsylvania.
- Zollo, M., & Singh, H. (2004). Deliberate learning in corporate acquisitions: Post-acquisition strategies and integration capability in U.S. bank mergers. *Strategic Management Journal*, 25(13), 1233–1256.