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Abstract: Value creation in acquisitions is tightly connected with actions taken during integration. However, research on integration mainly concentrates on integration typologies or on the autonomy vs. absorption debate, each stream with empirical evidence for respective benefits. We argue and give empirical evidence that there is no "one size fits all" approach for integration but rather an interdependency of the suitability of integration related decisions with the industry lifecycle. We demonstrate that beneficial or detrimental effects of degree of integration, formal, and informal coordination mechanisms are context-specific and differ significantly in growing, mature, and declining industries. We show that the degree of integration only has a significant beneficial effect in mature industries, while no effect in cases of declining and fast growing industries is observable. Here we indicate that in acquisitions with buyers in declining industries formal coordination mechanisms are most beneficial, while in growing industries only informal coordination mechanisms are valuable.

Suggested Reviewers:

Opposed Reviewers:

Dear Special Issue Guest Editors of Long Range Planning,

Dear Dr. King,

Dear Dr. Tiennari,

Thank you for your positive feedback and for giving us a further opportunity to revise our manuscript. We implemented the requested changes and hope that it fits your expectations.

We are looking forward to your reply!

Best regards,

Florian Bauer

Mai Anh Dao

Kurt Matzler

Shlomo Tarba

Dear Special Issue Guest Editors of Long Range Planning,

Dear Dr. King,

Dear Dr. Tiennari,

Thank you for your positive feedback and for giving us a further opportunity to revise our manuscript.

We now made sure to consistently refer to 'mature' as the label of the industry life cycle stage, while 'stable' is used as a characteristic of mature industries. Thank you for raising this inconsistency.

With regards to your second comment, we first, included several minor links to the topic of your special issue (e.g. by highlighting that M&A are a strategic tool for corporate growth and development) and second, added two passages in the introduction and implication section, where we embedded our research and arguments into the context of firm growth and the interplay between internal and external dynamism pertinent to M&A. We now write in the introduction:

“As firm growth is not generated by resources as such but by the management thereof, not only post-acquisition integration management, but also environmental dynamism needs to be considered for strategic choices. Thereby, the industry lifecycle, within the focal transaction takes place, sets boundary conditions for management in reaching effective post-acquisition integration and thus long-term growth. So we conclude that managerial actions are beneficial in one context, but not in the other. Developing an understanding on these boundary conditions inherent to every M&A should therefore contribute to our understanding of realizing long term growth.”

The following has been added to the implications section:

“M&A are a commonly applied pathway to accelerate growth prospects for firms. Considering the dynamics for such strategic moves not only relates to the internal matters of integration management, but it also relates to navigating the process of bringing together two formerly separate firms. It is also crucial to take the business

environment and how it influences strategic rationales of growth dynamics into account.”

We hope that these changes meet your expectations and are looking forward to your reply.

Sincerely,

Florian Bauer

Mai Anh Dao

Kurt Matzler

Shlomo Y. Tarba

## How industry lifecycle sets boundary conditions for M&A integration

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Recent research suggests that M&A performance drivers are not necessarily the opposite of what causes failure (Campbell, Sirmon, & Schijven, 2016). As a consequence, there is no 'right' or 'wrong' approach or path, but M&A integration should rather be considered and managed in interaction with or dependent on other variables (Ellis & Lamont, 2004). M&A are most commonly seen as a strategic vehicle for non-organic growth with a faster increase in scale or scope compared to organic or internal growth efforts (Anand & Delios, 2002; Dierickx & Cool, 1989). However, an increase in scale and capacity might be an important aim in growing industries, but is not a primary motive in declining industries (Anand & Delios, 2002; Anand, 2004). For declining industries Anand and Singh (1997) found that resources are redeployed more effectively through market mechanisms in consolidation-driven rather than in diversification-oriented acquisitions. As firm growth is not generated by resources as such but by the management thereof, not only post-acquisition integration management, but also environmental dynamism needs to be considered for strategic choices. Thereby, the industry lifecycle, within the focal transaction takes place, sets boundary conditions for management in reaching effective post-acquisition integration and thus long-term growth. So we conclude that managerial actions are beneficial in one context, but not in the other. Developing an understanding on these boundary conditions inherent to every M&A should therefore contribute to our understanding of realizing long term growth.

Even though industry growth is often used as a control-variable in M&A literature (e.g., Bauer & Matzler, 2014; Homburg & Bucerius, 2005), results indicate that firms in declining, mature, or growing industries do not only differ with regards to their strategic intentions, but far more with regards to their integration approaches and depths respectively (Bauer & Matzler, 2014). We contend that managers will be unable to predict the value of integration related decisions if the industry context is not considered, as the organization's environment determines

constraints and opportunities for exploiting a firm's capabilities (Barney, 1991). M&A integration is primarily aiming at transferring, sharing, and redeploying resources and capabilities (Birkinshaw, Bresman, & Håkanson, 2000; Capron & Pistre, 2002; Haspeslagh & Jemison, 1991; Puranam, Singh, & Chaudhuri, 2009). However, "a resource valuable in a particular industry or at a particular time might fail to have the same value in a different industry or chronological context" (Collis & Montgomery, 1995, p. 120).

In this paper, we argue that M&A integration should not be studied as a self-contained event on an organizational level, but rather by considering the interplay of environmental and organizational forces (Kostova, 1999; Lord & Ranft, 2000; Scott & Davis, 2007). Following Scott and Davis (2007), Ashmos and Huber (1987) as well as Karniouchina and colleagues (2013), we see organizations as entities that are tightly interlinked to and thus affected by their environment. We hold that M&A integration related decisions and measures are context-specific and that beneficial or detrimental effects differ along different stages of the industry life cycle. In more detail, we argue that different industry contexts act as boundary conditions determining the value of the degree of integration and the deployed formal and informal coordination mechanisms. We reason that the significance of integration related decisions and measures differ in growing, mature, and declining industries, as the industry life cycle poses different levels of environmental turbulence, uncertainty, and employees perceptions on future viability. Industry life cycle stages affect organizational members differently and consequently should also be considered in M&A integration, as in light of contextual influences efficiency and effectiveness of mechanisms of integration can be exploited or hampered. We argue and give empirical evidence that growth, maturity, and decline stages are important boundary conditions for M&A integration and that integration related decisions and measures should be employed differently



according to the industrial setting. Thus, we contribute to M&A integration research by outlining that different stages of the industry lifecycle influence integration decisions.

### **How industry context is related to M&A integration**

By investigating the relationship of resources and industry, a recent paper argues that different stages during the industry lifecycle affect the interplay of industry, corporate parent, and business unit effects (Karniouchina et al., 2013). They give empirical evidence that success-factors differ in the growth-, maturity-, and decline stage. The industry life cycle is an indicator for environmental change, which is represented by changes in size or shape (Cameron et al., 1987) that lead to a higher degree of volatility and complexity in the task environment (e.g., customers, suppliers, competitors, regulatory groups, technology) (Bourgeois, 1980; Kumar & Seth, 1998). In growing markets the level of rivalry is low due to an increasing demand (Sirmon, Hitt, & Ireland, 2007). Thereby heterogeneous incumbents serve the market with unstandardized products and high product variation (Karniouchina et al., 2013), which results in a competitive situation where methods and rules of the market are still in flux (Porter, 1980).

Organizations need to be flexible in order to realize business opportunities in the industry. For growing contexts a high level of volatility and non-predictability in demand can be claimed, which increases uncertainty (Sirmon et al., 2007). In mature industries, rivalry increases and demand stabilizes. This results in a different situation for industry incumbents (Sirmon et al., 2007), since scale economies and increased price competition force smaller and weaker firms to exit the industry leading to a higher concentration of incumbents (Carroll, 1985; Jovanovic & MacDonald, 1994; Karniouchina et al., 2013). In declining industries, these effects intensify with a high level of concentration which leads to fierce competition amongst the few remaining incumbents that increasingly seek for firm-specific advantages towards competitors (Russo &

Fouts, 1997). Firms are faced with a challenging transformation as common goals like growth and profit maximization are not compatible and a focus on either consolidation or diversification is more appropriate (Anand & Singh, 1997). In each case, it is evident that organizations have to adapt to changing environmental contexts (Goodstein & Boeker, 1991) and develop competences to ensure long-term success (Deans et al., 2002).

On an organizational level, there is empirical evidence that managerial priorities differ along the lifecycle (Deans et al., 2002; Smith et al., 1985). While the growth stage is associated with constant change, in for instance hierarchies or functional tasks, the maturity phase is more stable and characterized by more bureaucratic principles, standardized procedures and rules, as well as formal structures (Kazanjian, 1988). Hansen and Hamilton (2011) found evidence for firm-level differences in growing and non-growing firms in terms of flexibility, adaption, and technological sophistication in a sample of small firms. These results are in line with previous research results on the comparison of growing and non-growing firms with regards to planning, formalization, and structure (Galbraith, 1982; Kazanjian, 1988; Scott & Bruce, 1987).

According to Anand and Singh (1997) the approach with highest returns for firms in declining industries is consolidation of capacity through horizontal and related acquisitions. This allows organizations to increase market power and efficiency (Dutz, 1989; Stigler, 1964). Firms in declining industries experience a high pressure of remaining competitive against the fierce competition, while organizations in growing industries face less competitors and future viability is not at stake. With a high level of rivalry within an industry maintaining market power and profitability through a reduction of competition is a common approach (Dutz, 1989). More importantly, however, is that consolidation leads to rationalization of capacity and consequently rather follows efficiency based motives (Anand & Singh, 1997; Dutz, 1989). Such consolidation

moves within an industry can provoke competitive responses (Chen, 1996; Derfus, Maggitti, Grimm, & Smith, 2008). Consequently, the proposed synergy of M&A integration can be lost due to competitor reactions (Krüger & Müller-Stewens, 1994) when all managerial attention is focused on internal restructurings and the merging organization is more vulnerable towards counter-strikes. At the same time, the level of turbulence and uncertainty by new entrants is rather low, as for new entrants high investments are needed in order to successfully compete with incumbents (Baptista & Karaöz, 2011). However, for the integrated organization turmoil arises because strategic redirection is needed in order to navigate the company through a competitive turnaround with severe consequences for human resources (Lengnick-Hall & Lengnick-Hall, 1988). Cyclical downturns usually affect personnel dramatically, as layoffs are undertaken to preserve an organization's viability resulting in low morale and fear of future amongst employees (Kets de Vries & Balazs, 1997; Perry, 1986). Further effects of organizational declines are scapegoating of leaders, resistance to change, fragmented pluralism, withdraw of leader credibility, conflict, and curtailment of innovation (Cameron et al., 1987). To conclude, even though all phases of industry lifecycles are associated with serious challenges the influence on organizational members is distinctive in different stages of the lifecycle.

As a consequence, the value of specific managerial actions differs in growing, mature, and declining industries. Table 1 summarizes environmental and organizational characteristics, as well as effects on organizational members in the respective industry-contexts.

	Growing industries	Mature Industries	Declining Industries
Environmental Characteristics	<ul style="list-style-type: none"> <li>• Growing demand</li> <li>• Low level of rivalry</li> </ul>	<ul style="list-style-type: none"> <li>• Stable demand</li> <li>• Increased level of rivalry</li> </ul>	<ul style="list-style-type: none"> <li>• Decreasing demand</li> <li>• High level of rivalry</li> </ul>
Organizational Characteristics	<ul style="list-style-type: none"> <li>• Rapid changes</li> <li>• Need for flexibility</li> <li>• Low level of formalization</li> </ul>	<ul style="list-style-type: none"> <li>• Standardized procedures and rules</li> <li>• Bureaucratic principles</li> <li>• Formal structures</li> </ul>	<ul style="list-style-type: none"> <li>• Transformation/redirection necessary</li> <li>• Low morale and credibility</li> </ul>

Effects on Organizational Members	<ul style="list-style-type: none"> <li>• High level of environmental uncertainty</li> <li>• No fear of future viability</li> </ul>	<ul style="list-style-type: none"> <li>• Low level of environmental uncertainty</li> <li>• Less fear of future viability</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental changes are predictable</li> <li>• Great fear of future viability, hesitation/resistance to change</li> </ul>
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Table 1: Characterization of industry context and its effects on organizational members

Acquisitions constitute a strategic option to cope with the constraints of business dynamics and environmental change (Capron, 1999; Swaminathan et al., 2008; Anand & Singh, 1997). While firms in growing markets need to keep pace with the growth pressure (Schoenberg & Reeves, 1999), firms in mature or declining industries need to redeploy their access to resources (Anand & Singh, 1997; Powell & Yawson, 2005). In all three stages—growth, maturity, and decline, M&A are a popular tool for strategic renewal or adaption. As these stages affect organizations in many ways (e.g., the value of managerial actions, procedures, rules, structures, and employees), integration depth and coordination mechanisms should differ in cases of growth, maturity, and decline to accommodate the different inherent challenges within each stage.

### **Managerial decisions in post-merger integration**

#### ***Degree of integration***

The integration phase constitutes a considerable challenge, since two previously independent organizations shall function as a closed unit with interdependencies on different levels (Barki & Pinsonneault, 2005). This requires not only that both parties learn to collaborate constructively with each other, but also that they need to cooperate in order to combine their strategic capabilities within an interactive, gradual process (Quah & Young, 2005). The effective use of existing capabilities plays the most important role in the post-acquisition integration of operations (Datta, 1991) and needs to be handled carefully in order to reap synergies (Chatterjee,

Lubatkin, Schweiger, & Weber, 1992; Hitt, Harrison, & Ireland, 2001). For realizing proposed synergies, at least some operations must be shared, combined, leveraged and/or eliminated (Bijlsma-Frankema, 2005; Birkinshaw et al., 2000; Schweiger & Lippert, 2005; Sirmon & Lane, 2004). Some researchers discuss strategic or constitutive decisions in the context of integration and thereby mean whether at all and in light of which capability gains a company should be integrated into the other (e.g., Arora, Belenzon, & Rios, 2014; Datta, 1991; Puranam, Singh, & Chaudhuri, 2009; Zaheer, Castaner, & Souder, 2013).

Considerations about the allegedly conflicting priorities of integration and separation center on several arguments. On the one end of this continuum, scholars advocate a target's autonomy for the following reasons: Allow a high degree of autonomy and freedom to enable a target to preserve its structures and sustain its own identity (Kale et al., 2009) with clear goals and objectives are predefined by the acquirer (Datta & Grant, 1990). Among others this brings about fewer costs of disruptions to the innovative capacity of the acquired firm (Benner & Tushman, 2003; Puranam et al., 2009; Ranft & Lord, 2002). It also leads to less decision-making paralysis from when acquirers do not understand the target's business (Datta & Grant, 1990; Kale et al., 2009), its corporate cultures (Appelbaum, Gandell, Yortis, Proper, & Jobin, 2000), or core competences (Schweizer, 2005).

On the other end of the continuum, researchers argue that integrating the acquired firm leads to positive effects. The reason is that the consolidation of functions and operations leads to mutual learning effects, resulting in the convergence between organizational and individual beliefs (March, 1991). In a study on acquisitions in manufacturing industries, Bauer and Matzler (2014) showed that a high degree of integration leads to M&A success, building on the assumption that value creation is higher, when operative efficiency and market power can be

exploited (Meyer & Altenborg, 2007). Further, deep integration can trigger value creation, as high levels of integration in certain functions (e.g., distribution, logistics) can cause spillover effects on other functions (Häkkinen et al., 2004). In the same vein, since knowledge (especially tacit) is difficult to transfer, a high level of post-acquisition integration may be required to realize the benefits of acquisitions (Almor, Tarba, & Benjamini, 2009; Puranam, Singh, & Zollo, 2003, 2006; Puranam & Srikanth, 2007; Ranft, 2006). However, a high level of integration eventually engenders cultural clashes (Weber & Tarba, 2011), destroys the knowledge-based resources of the acquired firm after senior management and key employee turnover (Krug, Wright, & Kroll, 2014; Lord & Ranft, 2000), and disrupts organizational routines (Spedale, van den Bosch, & Volberda, 2007; Tarba, Almor, & Benjamini, 2012). These results indicate that dominant or confrontational integration approaches can lead to negative outcomes (Drori, Wrzesniewski, & Ellis, 2011). In greater detail, Gomes et al. (2011) and Weber et al. (2011; 2009) postulate that the cause for dismal performance track records of acquiring firms stems from the unwillingness or inability to implement tailor-made post-acquisition integration approaches required in specific M&A cases.

Despite the controversy in the integration vs. separation discussion, a third strand exists, where researchers (e.g., Haspeslagh & Jemison, 1991; Zaheer et al., 2013) claim that integration is in fact not one end of a continuum opposite to separation or autonomy, but a distinct concept that affects capability leverage. However, deep integration requires increased coordination efforts when both organizational systems need to be extensively linked to each other (Wren, 1967). As acquisition integration extends over a longer period of time, where results can be determined three to five years after the transaction at the earliest (Bauer & Matzler, 2014; Ellis et al., 2009; Homburg & Bucerius, 2005; Zollo & Meier, 2008), planning becomes a difficult task especially in cases of turbulent environments (Grant, 2003; Silverblatt & Korgaonkar, 1987). Homburg and

Bucerius (2005) for instance found that the effect of integration on cost savings is significantly higher in cases of a stable market growth than in high growth industries. This is in line with the results of Bauer and Matzler (2014) who found a significant relationship between industry growth and the degree of integration indicating that firms in mature industries tend to integrate deeper. These insights show that high levels of integration, and thus a high amount of long-term changes induced to the merged organizations, require a stable, secure, and predictable context to deliver valuable results. Such contexts can be found in mature markets that are characterized by less dynamism (Dawson, 2014) as a result of more stable market shares among competitors (Arndt, 1979), higher switching barriers (Colgate & Lang, 2001), and a smaller number of competitors (Buzzel, 1981).

In cases of fast growing industries, forecasting which is necessary for long-term integration planning becomes a difficult task (Mintzberg, 1991). Instead, frequent changes in hierarchies and tasks are common (Hansen & Hamilton, 2011; Kazanjian, 1988) resulting in impeded strategic decision making (Burgelman, 1983; Grant, 2003). As integration requires a substantial commitment of managerial resources (Haspeslagh & Jemison, 1991), activities in the core business may be distracted (Schoar, 2002). Especially in fast growing industries a full absorption approach with many tasks being internally reorganized might curb the whole growth momentum, as business processes and routines are less developed (Homburg & Bucerius, 2005). Additionally long-term plans can be inhibited by unanticipated changes, since the integration process itself is complex and unpredictable due to surprises, external, or internal threats (Gates & Very, 2003; Vester, 2002; Schriber, 2015). So, turmoil in growing industries comes with many uncertain and unpredictable market developments that impede valuable results by reaching a high degree of M&A integration.

Declining industries have some common patterns like fierce competition or decreasing demand. Thus, consolidation movements or market exit strategies of firms are common (Anand & Singh, 1997). In consolidation driven acquisitions one could assume that the elimination of redundancies and a tight integration might be the best pathway to success. Anyway, we argue that firms within such industries should avoid radical changes in structures and tasks. Next to costs that are induced to the organization through coordinating the integration of operating systems, structures, and processes (Shrivastava, 1986), opportunity costs occur as managerial attention is tied to integration tasks (Larsson & Finkelstein, 1999). M&A integration regularly causes employees to undergo turmoil due to job insecurity, procedural changes and cultural clashes (Larsson & Lubatkin, 2001; Steigenberger, 2016; Weber & Drori, 2011). So, many measures induced to the integrated organization result not only in shrinking market shares and customer loyalty (Homburg & Bucerius, 2006), but also in decreasing employee retention (Angwin & Meadows, 2009; Angwin, 2004b; Very, Lubatkin, Calori, & Veiga, 1997). The more processes, structures, and systems are integrated, the more coordination costs evolve (Slangen & Hennart, 2008). In light of the fear of future viability that a declining industry poses to organizational members, integration activities can lead to political behavior and ingroup outgroup biases (Björkman, Stahl, & Vaara, 2007; Lakshman, 2011), when employees are increasingly troubled by an additional transformation challenge. Growing internal conflicts and resistance (Larsson & Finkelstein, 1999) decrease firm performance (Weber & Camerer, 2003) and therefore are considered as being an obstacle rather than a facilitator of reaping synergies (Stahl & Voigt, 2008).

Next to potential negative internal effects, managerial attention and resources should be bundled towards seeking new opportunities and defending the current position (Deans et al., 2002). Particularly under these circumstances transformation activities are required (Anand &



Singh, 1997) and therefore, organizations need to trade off costs of coordinating integration against its benefits. Consolidation related activities lead to losses in current market share distribution and trigger competitive reactions (Chen, 1996; Clark, Gioia, Ketchen, & Thomas, 2010; Derfus et al., 2008). During M&A integration, organizations are vulnerable and instable (Angwin, 2004a) and cost saving opportunities are limited (Homburg & Bucerius, 2005).

Accordingly, we propose:

**Hypothesis 1 (H1):** *A high level of integration is valuable in mature industries, but it has no effect in growing and declining industries.*

### ***Formal and informal coordination mechanisms***

Different linking mechanisms for the previously separate organizational systems are used to build a common organizational boundary (Galbraith, 1974; Thompson, 1967; Tushman & Nadler, 1978). These coordination mechanisms are enabling processes (Cray, 1984; Nobel & Birkinshaw, 1998) or any administrative tool (Martinez & Jarillo, 1989), which allow for a relationship between formerly separate resources and capabilities (Cohen & Levinthal, 1990). They also enable organizational members to perform a collective task (Van de Ven et al., 1976) under conditions of interdependence and uncertainty (Faraj & Xiao, 2006). Despite this, coordination mechanisms for integration deliver access to leveraging collective resources and exploiting synergies (O'Reilly & Tushman, 2008). Coordination entails characteristics of control, which is geared towards regulating organizational activities, and communication, which aims to exchange information (Nobel & Birkinshaw, 1998). However, mechanisms of coordination should not only meet the requisites of maintaining interdependencies between the merged firms and their involved working units (Faraj & Xiao, 2006), but should also correspond to the environmental situation. According to Kumar and Seth (1998) strategic interdependence and

environmental uncertainty can be opposing forces, since the former averagely comes with more coordination and control, while the latter suggests less coordination and control efforts. In their study they examined how the degree of strategic interdependence and environmental uncertainty influences the design of control mechanisms in joint venture formations (Kumar & Seth, 1998). Following a structural contingency theory and resource dependence view, we claim that industry context affects the efficacy of coordination mechanisms during the integration phase of M&A. As mentioned, we distinguish between the three main dimensions – growth, maturity, and decline. Moreover, we differentiate between the two most prominent and generic coordination forms, namely formal and informal coordination mechanisms (Hanisch & Wald, 2014; Jansen, Tempelaar, van den Bosch, & Volberda, 2009; Larsson & Lubatkin, 2001; Martinez & Jarillo, 1991; Tsai, 2002).

Formal integration mechanisms are systematic, predetermined means and interfaces to revisit, reinterpret, and newly apply resources and capabilities in the merged organization (Ghoshal et al., 1994; Zahra & George, 2002; Zahra et al., 2001). Such mechanisms are beneficial when (autonomous) decision-making needs guidance through clear structures and a given direction (Ghoshal & Nohria, 1989). Formal mechanisms of coordination have two dimensions – centralization and formalization of procedures. While centralization involves where and how decision-making power is executed in order to align and keep track of decisions (Ghoshal & Nohria, 1989; Kim, Park, & Prescott, 2003; Martinez & Jarillo, 1991; Siggelkow & Levinthal, 2003; Tsai, 2002), formalization aims at developing routines and standards in order to increase process efficiency (Ghoshal & Nohria, 1989; Hage & Aiken, 1967; Kim et al., 2003; Martinez & Jarillo, 1991; Schweiger & Very, 2003). Overall, formal integration mechanisms include cross-functional interfaces, as for instance liaison personnel, task forces, and teams (Gupta & Govindarajan, 2000). They also comprise any standardization in the form of, for instance,

(written) rules, policies, and manuals for resource allocation, work procedures, job descriptions (Ghoshal & Nohria, 1989; Kim et al., 2003; Martinez & Jarillo, 1991). Based on formalization, costs of coordination are reduced, since activities are streamlined and organizational behavior as well as performance becomes more predictable due to the articulated information on duties and priorities (Ghoshal & Nohria, 1989; Gulati & Singh, 1998; Hage & Aiken, 1967; Kim et al., 2003; Moreno-Luzón & Begoña Lloria, 2008; Schweiger & Very, 2003). According to Srikanth and Puranam (2011), the aim of formal mechanisms is to “redesign tasks to reduce/simplify interdependence and [to] rely on standardized procedures to achieve coordination” (p.850). This has been argued to be favorable during destructive processes (Kets de Vries & Balazs, 1997). For post-merger integration in declining industries, these coordination mechanisms are remarkably helpful, as they establish clarity and thus avoid anxiety of employees and reduce the degrees of freedom that would allow for the emergence of organizational and employee resistance. By contrast, a higher level of flexibility is required in growing (due to increasing demand) and mature industries (due to increasing competition), where rigid and too homogenized structures implemented through formalization would be counter-productive to the volatility within the industry. Therefore we propose that formal mechanisms are of particular benefit for post-merger integration in declining industries, leading to the following hypothesis:

**Hypothesis 2 (H2):** *Formal coordination mechanisms are valuable in declining industries, but they have no effect in growing and mature industries.*

Informal mechanisms of coordination are a subtle, emergent way of collaboration that are established via voluntary and personal lateral relations (Tsai, 2002). Informal modes of integration encompass communication, e.g. through personal contacts, common trips or meetings, any subtle socialization activity on an interpersonal level (Kim et al., 2003; Martinez & Jarillo,

1991), management rotation or liaison personnel (Ghoshal et al., 1994; Ghoshal & Nohria, 1989), task forces or any other opportunity to exchange information and bond with colleagues (Jansen et al., 2009; Mom, van den Bosch, & Volberda, 2009; Tsai, 2002). All these encounters stimulate information and knowledge exchange (Björkman et al., 2004). They also result in a common vision, shared beliefs, values and norms (Burgers, Jansen, Van den Bosch, & Volberda, 2009; Ghoshal & Nohria, 1989; Gulati & Puranam, 2009; Kim et al., 2003; Mom et al., 2009). Such social interactions do not only enhance the development of trust, moreover they strengthen social bonds and community membership (Enfield, 2006; Festinger, 1954; Stahl et al., 2012). As a result, communication efforts are accomplished directly and more open, leading to faster information processing and capability exchange (Adler, 2001; Björkman et al., 2004; Cohen & Levinthal, 1990; Ghoshal et al., 1994; Gupta & Govindarajan, 2000; Hansen, 2002; Nobel & Birkinshaw, 1998; Sarkar et al., 2001; Schulz, 2003; Tsai, 2002). Some scholars argue that companies tend to apply informal mechanisms of coordination in response to increased uncertainty and volatility in terms of tasks and environment (Bechky, 2006; Galbraith, 1974; Martinez & Jarillo, 1991; Thompson, 1967).

Following up on this, we pose that for a high level of uncertainty and volatility in the environment, which is the case for growing industries, informal coordination mechanisms are beneficial in post-merger integration, particularly when companies face times of non-predictability and turbulence. In declining industries, employees are confronted with a different kind of uncertainty during M&A integration. Due to common patterns like the closing down of factories, layoffs, or exit strategies, internal uncertainty occurs. The amplified state of emotional insecurity and fear of future viability also poses a circumstance of internal turbulence and instability in how to complete a task or the consequences of environmental developments on the organization. We argue that subtle modes of coordination offer more flexibility and variability

(Daft & Lengel, 1986; Hanisch & Wald, 2014) and therefore, employees can more easily adapt to uncertain and volatile situations and react faster. Additionally, a common vision, shared beliefs, values and norms strengthen the organizational punch needed in times of excessive growth or fierce competition. Studies on the effect of informal coordination mechanisms in different settings provide empirical support for its beneficial effects on firm performance in times of increased task uncertainty (Argote, 1982; Gupta et al., 1994; Keller, 1994; Van de Ven et al., 1976). Consequently, we propose:

**Hypothesis 3 (H3):** *Informal coordination mechanisms are valuable in growing and declining industries, but they have no effect in mature industries.*

## **Methodology**

### ***Sample and data collection process***

Our sample combines data from two surveys where the relevant scales are identical. Study 1 was conducted in March and April 2012, while study 2 was conducted in the same months in 2014. Both samples were constructed from the Zephyr database of the Bureau van Dijk and included acquirers from the German-speaking part of Europe. As it takes three to five years after deal closing to evaluate the success or failure of an acquisition (Ellis et al., 2009; Homburg & Bucerius, 2005, 2006), the investigated transactions were closed between January 2007 and April 2009 in study 1 and between January 2008 and December 2011 in study 2. While study 1 had a focus on the energy and water supply and the manufacturing industry, study two concentrated on acquirers from the chemical, rubber, plastic, metal, machinery, furniture, recycling, gas, water, electricity, construction, and transportation industry. After eliminating those transactions that were legal restructurings (without any intentions of integration), transactions without contact

details, and firms that were bankrupt at the time of investigation, we had a sample of 528 M&A for study 1 and a sample of 761 M&A for study 2.

Before sending out the questionnaires, we conducted for both studies a face to face pre-test with experts to identify ambiguous wordings, inappropriate scales or other areas to improve (Dillman et al., 2009; Dillman, 1991; Saunders et al., 2012). After modifying some items and wordings we sent out the questionnaires via mail to executives of the acquiring firms. At the front end of the questionnaire we implemented two control questions. First, if the respondent was a member of the acquiring organization before the initial transaction and second, if he or she was actively involved in the transaction. The emitted postal items consisted of a cover letter (Saunders et al., 2012), a management summary (in case of study two) of the previous year's (2013) study, the questionnaire, and a return envelope. After a two to three weeks period we received 30 (in case of study 1) and 50 (in case of study 2) completed questionnaires. After conducting follow-up phone calls and sending out reminder mailings, we received 116 and 114 completed questionnaires. Due to the substantial length and the positions of our respondents, our response rate is in line with other primary data research (Datta & Grant, 1990; Homburg & Bucerius, 2005, 2006).

From our initial sample of 240 acquisitions, we selected those acquisitions, in which acquirer and target were operating in similar markets with regards to business to business, business to consumer or both. 205 acquisitions remained, and they were checked for bias in three steps. In a first step, we checked for external validity aspects of both studies individually. A potential non- or late-response bias was tested by comparing early and late respondents (Armstrong & Overton, 1977). The results indicate no significant differences for both studies. Additionally, different data collection methods could affect cognitive processes and thus response

patterns of individuals (Podsakoff et al., 2003). Consequently, we compared the questionnaires filled out via mail, internet, and telephone. Again, the comparison of mean values did not show any significant differences. Finally, before matching the two datasets, we first checked for identical cases in terms of acquisitions and second for significant differences with regards to industry growth, annual sales, relative size, and type of transaction.

Having used self-reported data and having collected the independent and dependent variable at a single point of time with the same survey instrument and the same respondent, there is a serious concern for common method bias due to consistency motif and social desirability (Podsakoff et al., 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). Even though some scholars refer to common method bias as being an “urban legend” (Spector, 2006), we implemented four a priori measures, as well as three post hoc controls. First, we guaranteed the respondents anonymity and confidentiality (Podsakoff et al., 2012). Second, we employed latent variable measurement (Harrison et al., 1996) Third we separated our latent variables to avoid response patterns (Podsakoff et al., 2012). Fourth, we relied on existing measures. After data collection, we tested for a potential common method bias by applying Harman’s single factor test (Podsakoff & Organ, 1986). The results provide us with 8 distinct factors. Second, we tested for discriminant validity of the investigated variables. The results are available from the authors upon request. Third, to test for social desirability, we analyzed the distribution of our dependent variable. Consistent with other research, our results indicate that about 50% of the respondents do not reach their initially set reorganization goals. These results indicate that common method bias is not a major concern for our data.

### ***Measurement development***

For measuring our latent variables, we relied on existing scales. The major advantages of this approach are: 1) the validity if the measurement model is already proven, and 2) it facilitates the comparability of the research results (Bryman & Bell, 2011).

*Dependent variable – Internal reorganization goal achievement*

M&A research usually incorporates an overall performance measure as dependent variable (King et al., 2004). One can distinguish between short-term event study-based, long-term stock market-based, accountancy-based, or survey-based measures. However, a recent study by Cording and colleagues (2010) shows that different measures have only little variance in common, which leads to the conclusion that they do not assess the same phenomenon. Even though integration and integration-related managerial actions affect M&A performance (Bauer & Matzler, 2014; Homburg & Bucerius, 2006; Larsson & Finkelstein, 1999), we argue that integration-related decisions rather relate directly to intermediate goals than affecting acquisition performance (Cording et al., 2010). As acquisitions are rare strategic decisions (Zollo & Meier, 2008) with inherent causal ambiguity (Cording, Christman, & King, 2008) the performance relationship can be described as fuzzy (Zollo, 2009). To better understand and assess the link between integration related decisions and their outcome (King, 2007), we assess intermediate goal achievement and thus, reduce the complexity and temporal distance of the relationships compared to an ultimate acquisition performance relationship (Cording et al., 2008). If firms share similar markets, research suggests two popular acquisition goals namely, market expansion and internal reorganization (Bower, 2001; Cording et al., 2008). We believe that market expansion goal achievement measures are difficult to interpret, as the motivations and goals of acquisitions in growing, mature, and declining markets may differ. Consequently, we use internal reorganization goal achievement as our dependent variable which includes the consolidation of



similar business units and the knowledge transfer from acquirer to target (Cording et al., 2008) that allows to estimate the degree to which consolidation and coordinated knowledge and information exchange goals were reached (Cording et al., 2008; Haspeslagh & Jemison, 1991). To make the acquisitions comparable, we applied the weighted measurement model from Cording and colleagues (2008), which relates goal importance to goal achievement. The goal importance question relates to the importance of specific objectives at the time of the acquisition and was placed in the front-end of the questionnaire. Goal achievement questions were placed in the end of the survey instrument and managers were asked to rate to which degree the objectives were achieved. We used the same two objectives (consolidation and knowledge transfer) for the importance and achievement measures that were rated on a seven-point scale ranging from 1 to 7. The goal achievement measure was rescaled from -3 to 3. For creating importance-weighted internal reorganization goal achievement scores we multiplied the importance and achievement measures (Cording et al., 2008).

### *Independent variables*

#### *Degree of integration*

The degree of integration was assessed by using Cording's et al. (2008) measurement model that assesses the four dimensions employee integration, production integration, marketing integration, and systems integration with 11 indicators measured on a seven-point scale ranging from 1=no integration at all to 7=complete integration. The values of the four dimensions were aggregated (Cronbach's Alpha=.771).

#### *Formal & Informal coordination*

For assessing formal and informal coordination, we applied the indicators developed by Martinez and Jarillo (1989) and Jansen and colleagues (2009). For our analysis we were able to use four items for formal coordination mechanisms (Cronbach's Alpha = .565) and three items for informal ones (Cronbach's Alpha = .829).<sup>2</sup>

### *Industry context*

For assessing industry context, we measured the average industry growth three years prior to the investigated transaction. This approach is in line with previous research in the field of M&A (Bauer & Matzler, 2014; Homburg & Bucerius, 2005, 2006) and in research combining strategic topics with industry growth (McDougall, Covon, Robinson, & Herron, 1994). From the original data, which ranged from negative growth greater than -15 % to positive growth greater than 30 %, we created the variable industry context. While an average industry growth from greater -15 % to +/- 0 % indicates a declining industry, a value between 1 % and 10 % indicates a mature, and an average growth greater than 10% a growing industry. These cut-off values have been chosen by plausibility according to industry reports. The three branches are relevant for constructing our subsamples.

### *Control variables*

As potential other variables may influence our research model, we have implemented several control variables (Saunders et al., 2012), namely relative size, annual sales, the type of transaction, and acquisition experience. Even though a larger target may offer more scale opportunities and a higher synergy potential (Larsson & Finkelstein, 1999), bigger targets are more difficult to change and integration becomes more complex (Cording et al., 2008; Zollo, 2009). Consequently, relative size might impact internal reorganization goals. Annual sales act as

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<sup>2</sup> Please note: The wording of some items from the informal and formal coordination measure was not 100% identical (study 1 has some examples included, while in study 2 the text of the question was longer). However, a comparison of the mean values gives evidence that they do not significantly differ from each other.

an indicator for developed acquisition routines that may impact integration related variables as well as the internal reorganization goal achievement (Barkema & Schijven, 2008). Additionally, size is an indicator for rather bureaucratic structures and a higher level of formalization (Blau et al., 1976; Marsh & Mannari, 1981). The type of transaction may also impact the internal reorganization goal achievement, as e.g. the consolidation of business units could be easier achieved in horizontal acquisitions while knowledge transfer might be trickier in conglomerate acquisitions. Acquisition experience influences the M&A outcome (Haleblian & Finkelstein, 1999; Uhlenbruck et al., 2006), even though the direction of the effect is not clear. We created a dummy variable for acquisition experience with a value of 0 for four or less undertaken acquisitions by the acquirer five years before the initial transaction and a value of 1 for more than four acquisitions. Each control variable was assessed with a single item.

## Analysis

### *Descriptive statistics*

The following table gives an overview of our sample. In detail, we show relative size, annual sales of the combined entity, type of transaction, transaction kind and industry growth.

Relative Size	in %	Annual Sales in Million €	in %
< 25%	57.1	< 25	15.6
25-50%	25.9	25-49	11.7
51-75%	8.3	50-99	24.9
76-100%	3.4	100-249	15.1
> 100%	5.4	250-499	11.2
		500-1.000	9.3
		> 1.000	12.2
Type of Transaction	in %	Kind of Transaction	in %
Horizontal	63.8	Acquisition	92.0
Vertical	31.2	Merger	8.0

Conglomerate	5.0	
Industry Growth	in %	in n
Decline	24.9	51
Mature	44.9	92
Growth	30.2	62

Table 2: Descriptive statistics

The descriptive statistics display the acquisition behavior of acquirers from the German speaking part of Europe. Most acquirers are medium sized and focus on rather small targets with a relative size below 50%. Most transactions are horizontal acquisitions. The average industry growth displays the reality of the investigated industries.

### *Hypothesis testing*

For assessing the effects of industry context, we applied OLS regression analysis. Table three shows the correlations among the used variables as well as the mean values and the standard deviation.

	1.	2.	3.	4.	5.	6.	7.	8.
Internal Reorganization	1							
1. Goal Achievement	1							
2. Degree of Integration	.210**	1						
3. Formal Coordination	.049	.237**	1					
4. Informal Coordination	.254**	.150*	.061	1				
5. Relative Size	-.017	-.132	.137	-.108	1			
6. Annual Sales	.006	.012	-.002	-.129	.034	1		
7. Type of Transaction	.039	-.167*	-.192*	-.029	.136	-.031	1	
8. Acquisition Experience	.103	.074	.079	-.157*	.013	.283**	.049	1
Mean	.033	.024	4.75	4.99	1.74	3.71	1.41	.346
STDV	.979	1.00	1.02	1.52	1.10	1.91	.587	.477

Table 3: Correlations, mean values, and standard deviation

As table 3 shows, the correlations among the variables are rather low and far below the recommended threshold of 0.65 indicating that multicollinearity should not be an issue. We also

checked our data according to the Variance Inflation Factors (VIF) that range between 1.084 and 2.077, or they are below recommended thresholds. Consequently, we assume that multicollinearity is not a serious concern for our analysis (Tabachnick & Fidell, 2012). For analyzing our hypotheses, we calculated several models. In a first step we calculated the effects of the control variables for the complete sample of 205 acquisitions. The model is insignificant and only the path from acquisition experience on internal reorganization goal achievement is positive at a 10% level.<sup>3</sup> In model 2, we implement the predicting variables degree of integration, formal coordination, and informal coordination. The degree of integration has a positive effect on internal reorganization goal achievement ( $\beta=.173$ ;  $p<.05$ ), while formal coordination has no significant effect. The effect from informal coordination on internal reorganization goal achievement is significant and positive ( $\beta=.251$ ;  $p<.001$ ). Acquisition experience has a beneficial effect on internal reorganization goal achievement as the relationship is positive and significant.

Internal Reorganization Goal Achievement	Model 1	Model 2	Growth	Maturity	Decline
Degree of Integration		.173*	.101	.260**	-.261+
Formal Coordination		-.010	-.185+	-.037	.383*
Informal Coordination		.251***	.504**	.099	.076
<i>Controls</i>					
Relative Size	-.018	.028	-.135	.181+	-.099
Annual Sales	-.010	.012	.142	.023	-.328*
Type of Transaction	.035	.063	.146	.095	-.271*
Acquisition Experience	.105+	.123*	.041	.183*	.039
F-Value	.606	3.473	2.926	2.146	2.355
R <sup>2</sup>	.012	.113	.279	.155	.292
adjusted R <sup>2</sup>	-.008	.080	.183	.083	.168

Significance levels: +  $p<.1$ ; \*  $p<.05$ ; \*\*  $p<.01$ ; one-tailed tests

Table 4: Results of regression analysis

In a second step, we separated our sample according to the industry context categories. The results will be described along the industry cycle. In growing industries, the degree of

<sup>3</sup> Please note: All other models are significant at  $p<.05$

integration is no decisive success factor, as the relationship is insignificant in the subsample and the coefficient low. Contrary to the proposed neutral effect of formal coordination mechanisms, we found a significant negative effect ( $\beta = -.185$ ;  $p < .10$ ). Still, informal coordination mechanisms are valuable ( $\beta = .504$ ;  $p < .01$ ) for internal reorganization goal achievement as proposed in H3. The control variables have no significant impact on internal reorganization goal achievement in growing industries. In mature industries, the value of the degree of integration becomes positive and significant ( $\beta = .260$ ;  $p < .01$ ) as proposed in H1, while we find no significant effects of formal and informal coordination mechanisms (as indicated by H2 and H3). Further, the control variables show that the acquisition of bigger targets is possible in mature industries ( $\beta = .181$ ;  $p < .10$ ) and acquisition experience pays off ( $\beta = .183$ ;  $p < .05$ ). In declining industries, the degree of integration has a negative effect on internal reorganization goal achievement ( $\beta = -.261$ ;  $p < .10$ ), while formal coordination mechanisms become a significant and—as proposed in H2—beneficial effect ( $\beta = .383$ ;  $p = .05$ ). Contrary to our full-sample findings in model 2, informal coordination mechanisms are insignificant in declining industries. Interestingly, the beneficial effect of acquisition experience disappears, too, while relative size, as well as non-related acquisitions, negatively influence internal reorganization goal achievement. The negative effect of annual sales in declining markets indicates that firm-size dependent formalization and capital requirements that display exit barriers are negatively impacting internal reorganization goal achievement. The negative effect of non-related acquisitions is in line with the results of Anand and Singh (1997) that consolidation-oriented acquisitions outperform diversification-oriented ones. In closing, our results show that different industry contexts require different integration related decisions and measures. Moreover, the context is a boundary condition for the value of acquisition experience, target size, diversification attempts, and firm size.

### ***Supplementary analysis and robustness tests***

In addition to our primary analysis, we performed three additional robustness tests: 1) An exploratory factor analysis showing that our integration related and outcome measures are discrete concepts, 2) A sensitivity analysis around the cut-off values of the three stages industry life-cycle concept, and 3) Additional analysis to show that model over-fitting is not a serious concern. First, as our integration related measures (degree of integration, formal coordination, and informal coordination) as well as our dependent variable internal reorganization goal achievement could belong to a greater integration concept, we tested for discriminant validity. The results of an exploratory factor analysis reveals four distinct constructs with an Eigenvalue for each latent variable greater than 1.0 and low cross-loadings. These results make us believe that the four constructs are conceptually and empirically discrete from each other.

Second, we applied clear cut-off values to construct our subsamples for growth, maturity, and decline, so we conducted additional sensitivity analysis with interaction effects. For the cases of formal and informal coordination, one could assume linear moderating effects of industry growth (before categorized in three fields), as e.g. for formal coordination, the effect is negative in growing ( $\beta = -.185+$ ), neutral ( $\beta = -.037$ ) in mature, and positive in declining ( $\beta = .383^*$ ) industries while for informal coordination the effects are neutral ( $\beta = .076$ ) in declining, weakly positive but insignificant in mature ( $\beta = .099$ ), and strongly positive in growing industries ( $\beta = .504^{**}$ ). Our analysis shows that industry growth has a negative moderating impact on formal coordination ( $\beta = -.145$ ;  $p = 0.040$ ) and a positive moderating impact on informal coordination ( $\beta = .152$ ;  $p = 0.034$ ). This supports our idea of different effects at different stages. For the degree of integration, a linear moderation test is not possible as the results from the three categories indicate an S-shaped relationship (negative, positive and neutral). Consequently, we conducted curvilinear moderation analysis in summarized segments (decline and maturity as well as maturity and growth) and in the cut-off values surrounding fields of the original scale. Again, the

continuous variable was used as a moderator. In the decline & maturity segments, a high level of integration is beneficial in the faster growing industries, while in the negative growing industries it is an inverted u-shaped downwards slope. For the maturity and growth segments, high integration is beneficial (nearly linear) for moderately growing industries, while the effect for high growing industries is minimal U-shaped indicating that there is no significant relationship. The results of the slope analysis around the cut-off values surrounding fields (one value above and one value below the cut-off) indicate that they represent transition phases. The results of the sensitivity analysis reveal that the chosen cut-off points do not affect the results.

As our research model consists of three independent and four control-variables, model over fit could be a serious concern especially as our sub samples are rather small (between 51 and 92). To mitigate for a potential model overfitting, we investigated our relationships with reduced models by implementing only the exploratory variables (Zaheer et al., 2013). The effects do not differ with regards to direction and significance of the proposed relationships. Consequently, we assume that the relationships are not artifacts of model-specification.

## **Implications**

### ***Theoretical implications***

M&A are a commonly applied pathway in all stages of the industry lifecycle to accelerate growth prospects for firms. Managerial actions and integration related decisions taken to combine previously separated firms are important success factors for M&A (Cording et al., 2008; Haspeslagh & Jemison, 1991). However, there is no pertinent integration strategy that fits all M&A and integration related decisions as well as managerial measures should be taken case sensitive (Weber, Tarba, & Bachar, 2011). This fact is demonstrated by diverging empirical results on integration (e.g., Larsson & Finkelstein, 1999; Paruchuri et al., 2006; Puranam et al.,



2009) indicating that post-merger integration is more complex than empirical research pictures it (Angwin & Meadows, 2015). M&A are a commonly applied pathway to accelerate growth prospects for firms. Considering the dynamics for such strategic moves not only relates to the internal matters of integration management, but it also relates to navigating the process of bringing together two formerly separate firms. It is also crucial to take the business environment and how it influences strategic rationales of growth dynamics into account. Testing managerial actions in different environmental settings—in our case in different stages of the industry life cycle—seems to be a promising framework. Without a distinction in terms of industry context, the degree of integration as well as informal coordination mechanisms appears to have positive effects on internal reorganization goal achievement, while formal coordination does not. However, in consideration of the varying contexts constituted by growing, mature, and declining industries, the value of managerial actions during post-merger integration differs.

In growing industries, organizations have to continuously adapt to a changing and non-predictable environment (Goodstein & Boeker, 1991) to cope with the growth. As a consequence, long-term plans in fast-moving industries are difficult to realize. Achieving a high degree of integration usually lasts between three to five years from deal closing on (Homburg & Bucerius, 2005, 2006). Thus, implementing a coherent integration strategy, that is cited to be a decisive success factor (Epstein, 2004) is unrealizable in light of such high levels of uncertainty and volatility. We found no empirical evidence for a significant relationship between degree of integration and internal reorganization goal achievement in growing industries, indicating that the effort of a high degree of integration does not pay off as the volatile environment makes long-term plans difficult to pursue (Grant, 2003; Silverblatt & Korgaonkar, 1987). In a stable environment—such as mature industries, a high degree of integration related efforts pays off. Inducing many changes on the human and task-related dimensions leads to increased operative

efficiency and market power (Meyer & Altenborg, 2007). However, a precondition for exploiting these opportunities is on the one side a stable, secure, and predictable environment and on the other side a low level of future viability in the organization.

In declining markets, firms either diversify or consolidate while the latter one is suggested to be more promising (Anand & Singh, 1997). Firms in declining industries follow some common patterns like reducing capacity, aggregating demand, or searching for efficiency. Tight integration measures to reduce redundancies and increase efficiency seem to be appropriate at first sight. But the closing down of firms, layoffs, low or negative profits, divestments, and other managerial measures trigger employees' fear of future viability (Cameron et al., 1987). We found evidence that in declining industries a high degree of integration negatively impacts internal reorganization goal achievement, as integration activities in combination with future viability causes political behavior and ingroup outgroup biases (Björkman et al., 2007; Lakshman, 2011). The additional transformation triggers conflicts and resistance resulting in increased coordination costs (Larsson & Finkelstein, 1999). Additionally, major changes caused by integration absorb managerial capacity with negative consequences in terms of shrinking market shares and customer loyalty (Homburg & Bucerius, 2006), as well as competitive dynamism (Krüger & Müller-Stewens, 1994), and thus, decrease the likelihood to reach integration goals (Slangen & Hennart, 2008). Our results are in line with previous research indicating that firms in unstable situations should maintain stability (Pfeffer & Salancik, 1978).

Formal and informal coordination mechanisms are navigators in dynamic times. In situations perceived as disruptive, formal coordination mechanisms are valuable (Kets de Vries & Balazs, 1997), as they provide clarity and transparency for employees. We found empirical evidence that formal coordination mechanisms positively impact internal reorganization goal

achievement in declining industries. This indicates that centralization fosters the alignment and efficiency of decisions (Ghoshal & Nohria, 1989; Kim et al., 2003; Martinez & Jarillo, 1991; Siggelkow & Levinthal, 2003; Tsai, 2002) and formalization is beneficial with regards to routines and standards that improve process efficiency (Hage & Aiken, 1967; Kim et al., 2003; Schweiger & Very, 2003). However, in growing industries systematic and predetermined mechanisms rather destroy the growth “momentum”. We found evidence that they negatively impact internal reorganization goal achievement, indicating that they are too rigid in growing environments. Even though informal coordination mechanisms provide more flexibility (Daft & Lengel, 1986; Hanisch & Wald, 2014), we found no evidence that they impact internal reorganization goal achievement in declining industries. It seems that informal coordination mechanisms could even increase employees’ scepticism regarding the organization’s future viability. Conversely, they are a perfect mechanism to bridge non-predictability and volatility in growing markets. Thus, in cases with a high level of internal or external dynamism and where fear of future viability is not a concern, informal mechanisms of coordination provide a strong tool to achieve internal reorganization goals.

A last theoretical implication derives from the control-variables acquisition experience and relative size. Empirical results on acquisition experience are unequivocal and many researchers are concerned with the conditions under which acquirers can positively transfer their experiences to a subsequent transaction (Haleblian & Finkelstein, 1999; Hayward, 2002; Muehlfeld et al., 2012). Our results demonstrate that a valuable transfer of developed acquisition routines is only possible in stable and predictable environments as characteristic for mature industries. For target firm size, we found that acquiring larger targets is beneficial in mature industries. Even though size increases the complexity of integration (Cording et al., 2008; Zollo, 2009), scale opportunities can be leveraged in mature markets (Larsson & Finkelstein, 1999).

### *Managerial implications*

The implications of our study are twofold for managers. First, managers should consider the industry context when planning and incorporating acquisition integration. There is no “perfect” set of managerial actions for integration. In declining industries, which involve a high level of fear and future viability on the employees’ side, a high degree of integration is closely connected with high coordination costs and disruptive moments for employees. As integration is a long-lasting process the beneficial effects of a high degree of integration can be doubted as the organization is in an unstable situation. Thus, managers are well advised to apply formal coordination mechanisms to counterbalance the fear of employees and their resistance by simultaneously increasing decision-making and process efficiency. When stipulating clearly and precisely means for integration implementation, managers could reduce the level of uncertainty for all involved parties and establish clarity in a situation of low morale and great fear. In mature industries, a long-term process can be planned and implemented to achieve a high degree of integration. Consequently, the beneficial effects of harmonization pay off, while formal as well as informal coordination mechanisms do not play a major role. In growing industries, acquisitions can be seen as a tool for coping with growth. Thus, a time-consuming process, which is required to achieve a high degree of integration, would tie important managerial and other internal resources that are necessary for competing in a growing market. In this case, managers should rely on informal coordination, as formal coordination mechanisms rather destroy the “momentum” of growth. Anyway, as there is no endless growth, integration should not be ignored by management but rather be planned in the background.

Second, the reliance on acquisition experience in general seems to pay off. However, in cases of declining and growing markets, experience has no beneficial effects, as these beneficial

effects can be exploited only in a mature stage of the lifecycle. A major reason for this relationship can be found in the fact that only under stable internal and external conditions acquisitions are comparable and then experiences are transferable. Whereas in growing or declining industries a transfer of experience without any reservation to subsequent acquisitions is not possible due to a missing situational fit. Additionally, firm size strongly affects internal reorganization goals in declining markets. For larger firms, it is more difficult to break up organizational ties and consequently to achieve internal reorganization goals. Interestingly, even though bigger targets are more difficult to integrate (Cording et al., 2008), relative size has a positive effect in mature industries. If managers want to acquire bigger targets for economies of scale purposes or conduct a merger of equals, they would be well advised to do this in industries with a low level of volatility and where future viability is not an issue.

### ***Limitations & Conclusion***

As with other primary data research, our study is faced with several limitations. First, having collected the dependent and independent variable with one questionnaire and single respondents, common method bias could be a problem (Podsakoff et al., 2003, 2012; Podsakoff & Organ, 1986). However, we implemented several a priori measures and post priori controls that make us believe that common method bias is not a serious concern. Second, as we used retrospective data, the capacity of recollection (Sudman & Bradburn, 1973) and a too positive assessment in the long run (Golden, 1992) is a possible apprehension. Third, even though the cut-off points for the subsample construction are empirically supported by our supplementary analysis, we want to hold that the bounds are fluent and e.g. an industry growing by 10% is probably not totally different from an industry growing by 11%. Consequently, a more sophisticated measure of the industry life cycle should be implemented in future studies

investigating the context of acquisitions. Moreover, future research should examine these fluent bounds and of course additional industry-specific influences, where several papers from the entrepreneurship and strategy literature could be inspiring (Lumpkin & Dess, 2001; McDougall et al., 1994). Fourth, the sample sizes of our sub-samples are rather small. Nonetheless, they are in line with previous research (Morosini, Shane, & Singh, 1998) and they represent rather homogeneous groups of firms which limits the risk of unobserved heterogeneity. Nonetheless, a replication of our study with a greater sample size is desirable. Fifth, our sample consists of acquirers from the German speaking part of Europe. As Germany, Austria, and Switzerland are characterized by significant labor regulations (Homburg & Bucerius, 2005) that impact internal reorganization (Capron & Guillén, 2009), the conclusions are not transferable to acquirers from other countries. Therefore, future research should examine industry context in different national settings or with cross-border M&A.

To conclude, this paper contributes to the M&A integration literature in several ways. Post-merger integration is complex by nature. By introducing the idea of industry context, we shed light on the dependency of depth of integration and mechanisms on the industry lifecycle. Evidently, the success or failure of an acquisition depends on the set of managerial actions taken during integration. However, decisions and actions to be made are not solely about the degree of integration, formal or informal coordination mechanisms, but rather about appropriately applying them in the right context.

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## Author Biographies



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## Tables and Figures

Table 1: Characterization of industry context and its effects on organizational members

	Growing industries	Mature Industries	Declining Industries
Environmental Characteristics	<ul style="list-style-type: none"> <li>• Growing demand</li> <li>• Low level of rivalry</li> </ul>	<ul style="list-style-type: none"> <li>• Stable demand</li> <li>• Increased level of rivalry</li> </ul>	<ul style="list-style-type: none"> <li>• Decreasing demand</li> <li>• High level of rivalry</li> </ul>
Organizational Characteristics	<ul style="list-style-type: none"> <li>• Rapid changes</li> <li>• Need for flexibility</li> <li>• Low level of formalization</li> </ul>	<ul style="list-style-type: none"> <li>• Standardized procedures and rules</li> <li>• Bureaucratic principles</li> <li>• Formal structures</li> </ul>	<ul style="list-style-type: none"> <li>• Transformation/redirection necessary</li> <li>• Low morale and credibility</li> </ul>
Effects on Organizational Members	<ul style="list-style-type: none"> <li>• High level of environmental uncertainty</li> <li>• No fear of future viability</li> </ul>	<ul style="list-style-type: none"> <li>• Low level of environmental uncertainty</li> <li>• Less fear of future viability</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental changes are predictable</li> <li>• Great fear of future viability, hesitation/resistance to change</li> </ul>

Table 2: Descriptive statistics

Relative Size	in %	Annual Sales in Million €	in %
< 25%	57.1	< 25	15.6
25-50%	25.9	25-49	11.7
51-75%	8.3	50-99	24.9
76-100%	3.4	100-249	15.1
> 100%	5.4	250-499	11.2
		500-1.000	9.3
		> 1.000	12.2
Type of Transaction	in %	Kind of Transaction	in %
Horizontal	63.8	Acquisition	92.0
Vertical	31.2	Merger	8.0
Conglomerate	5.0		
Industry Growth	in %	in n	
Decline	24.9	51	
Mature	44.9	92	
Growth	30.2	62	

Table 3: Correlations, mean values, and standard deviation

	1.	2.	3.	4.	5.	6.	7.	8.
Internal Reorganization								
1. Goal Achievement	1							
2. Degree of Integration	.210**	1						
3. Formal Coordination	.049	.237**	1					
4. Informal Coordination	.254**	.150*	.061	1				
5. Relative Size	-.017	-.132	.137	-.108	1			
6. Annual Sales	.006	.012	-.002	-.129	.034	1		
7. Type of Transaction	.039	-.167*	-.192*	-.029	.136	-.031	1	
8. Acquisition Experience	.103	.074	.079	-.157*	.013	.283**	.049	1
Mean	.033	.024	4.75	4.99	1.74	3.71	1.41	.346
STDV	.979	1.00	1.02	1.52	1.10	1.91	.587	.477

Table 4: Results of regression analysis

Internal Reorganization	Model 1	Model 2	Growth	Mature	Decline
Goal Achievement					
Degree of Integration		.173*	.101	.260**	-.261+
Formal Coordination		-.010	-.185+	-.037	.383*
Informal Coordination		.251***	.504**	.099	.076
<i>Controls</i>					
Relative Size	-.018	.028	-.135	.181+	-.099
Annual Sales	-.010	.012	.142	.023	-.328*
Type of Transaction	.035	.063	.146	.095	-.271*
Acquisition Experience	.105+	.123*	.041	.183*	.039
F-Value	.606	3.473	2.926	2.146	2.355
R <sup>2</sup>	.012	.113	.279	.155	.292
adjusted R <sup>2</sup>	-.008	.080	.183	.083	.168

Significance levels: + p<.1; \* p<.05; \*\* p<.01; one-tailed tests