A multilevel study of M&A critical success factors

Abstract

Progress on multilevel understanding of M&A *critical success factors* (CSFs) has been limited, despite several years of work on the multidisciplinary and multistage aspects of CSFs. As a consequence, this study aims to analyze and illustrate how CSFs interplay across individual and organizational levels using a multilevel framework to enhance our understanding of M&A performance research. This paper contributes to M&A performance research in important ways. We employ a content analysis to generate a categorization of pre- and post- acquisition CSFs using a multilevel framework. In addition, we identify four distinct interplays, i.e., *upward*, *downward*, *both-way* and *no* interplay, within and across M&A CSFs. Finally, the study stimulates the ongoing cross-fertilization debate and establishes a foundation for the theoretical importance of a multilevel study of M&A critical success factors.

Keywords

Critical success factors, mergers and acquisitions, interplay, multilevel, M&A performance

Introduction

For decades, mergers and acquisitions' (M&A) performance research has been acknowledged as important in practical, monetary and social terms (Gomes, Angwin, Weber & Tarba, 2013), and also wide-ranging in multilevel, multidisciplinary and multistage terms (Angwin, 2007; Javidan, Pablo, Singh, Hitt, & Jemison, 2004). Yet, while the multidisciplinary and multistage aspects of M&A performance research are well documented in empirical and review papers (Gomes et al., 2013; Haleblian, Devers, McNamara, Carpenter & Davison, 2009; King, Dalton, Daily & Covin, 2004; Meglio & Risberg, 2011), the multilevel understanding of M&A success is less researched. This paper attempts to address this important but missing aspect of M&A research through a content analysis of extant literature on *critical success factors* (CSFs). This multilevel study, we argue is desirable because current conceptualizations of CSFs in M&A performance literature is blur on the combined level and phase at which the dominance of a particular CSF can be seen and what new insights it can generate. Also, while earlier papers have taken a phases approach to explain connectivity or

interplays, our ability to theorize CSFs that mutate between levels cannot be achieved using a similar approach to gain new insights for enhanced performance.

Specifically, our objective is to analyze and illustrate how the interplay between individual and organizational levels may influence our understanding of CSFs in M&A performance. In so doing, we employ an adapted multilevel framework based on prior scholarly works (see Molloy, Ployhart & Wright 2011; Powell, Lovallo & Fox, 2011). As can be said of CSFs, Molloy et al. (2011) for example suggest that all too often research where lower systemic level dominates over higher level (i.e., primacy of individual) fails to communicate with research concentrating on CSFs where higher systemic level dominates over lower level (i.e. primacy of incentives and social institutions), and consequently, multilevel research remains rare. In this paper, our approach takes the form of conceptual analyses of journal articles to accomplish this multilevel task, and thereby enhance our knowledge and understanding of CSFs in M&A performance literature and practice.

M&A research spans over a period of half a century and draws upon several disciplines, and is important in strategic, monetary and social terms (Gomes et al., 2013). However, M&A performance literature shows that half to three-quarters of M&A fail in creating value (Bower, 2001; Lees, 2003; Lovallo & Kahneman, 2003). As a result, many researchers have sought to explore the antecedents of M&A performance and some scholars have found M&A success to center on the features of the acquirer and target, and their strategic, organizational and cultural fits for integration as well as synergy realization (Chatterjee, 1992; Datta & Puia, 1995; Larsson & Finkelstein, 1999; Weber, Shenkar & Raveh, 1996; Weber & Tarba, 2012). Other scholars have amplified the call for a focus on the human and psychological aspects of M&A research to explain the variance in M&A performance (Cartwright, 2005; Stahl & Voigt, 2008).

Nonetheless, prior studies using several disciplinary perspectives in their pursuit to advance our knowledge of M&A performance have failed to discuss how the interplay between individual level and organizational level and even within the same level, may influence our understanding of CSFs in M&A research. In fact, this disconnection is not surprising because the predominant analytical focus of research in this field has mostly remained at the organizational (firm) level, i.e., the mutual fit between the acquirer and target firms for integration as well as synergy realization (Chatterjee, 1992; Datta, 1991; Larsson & Finkelstein, 1999), even though prior studies to a lesser extent also acknowledged the primacy of research focus at the individual level in shaping M&A performance, and so, contributes to M&A research knowledge fragmentation. Angwin and Vaara (2005) have espoused a similar

view that the field suffers from a lack of connectedness, and the various streams of M&A research are only marginally informed by one another leading to limited and compartmentalized understanding of the complexities involved in M&A process. Although this work has led to subsequent studies (see Gomes et al. 2013) revealing dynamic connectedness in a multidisciplinary review of CSFs in M&A performance literature, it does not address the multilevel interplay between the identified CSFs.

Recent special issues of the Academy of Management Journal (Hitt, Beamish, Jackson & Mathieu, 2007), the Journal of Organizational Behavior (Griffin, 2007), and the Journal of Management (Aguinis, Boyd, Pierce & Short, 2011) have called for studies that would bridge gaps between both the disciplines and levels which underlie management and organization studies in order to expand our understanding. Thus, bridging the gaps between both disciplines and levels is becoming topical in contemporary management and organization studies, and some M&A scholars have responded to these calls and begun to bridge the disciplinary gaps (Gomes et al., 2013). We build on this earlier effort by using their identified CSFs to understand the interplay and consequential impacts on M&A performance. Our work uses the dataset of Gomes et al. (2013), which employs prior meta-analytic leading journal article reviews from such authors as King, Dalton, Daily and Covin (2004) and Haleblian, Devers, McNamara, Carpenter and Davison (2009) and extends this dataset to include a multilevel analysis. As we illustrate later, this dataset is both multidisciplinary and multilevel. Yet, Gomes and his colleagues concentrate only on bridging gaps between disciplines and not between levels. In addition, the work of Gomes et al. (2013) is the first to the best of our knowledge, to consider the dynamic interrelationship between CSFs at the pre-acquisition and post-acquisition stages.

We contend that it is necessary but not sufficient to only examine the interrelationships of CSFs through a process lens which divides acquisitions into pre-and post-acquisition stages. CSFs also have an important multilevel dimension to them. In our review work, we content analyze and make explicit this multilevel dimension by discussing the interplays that explain the multilevel dimension (i.e., individual and organizational) of CSFs at both pre-acquisition and post-acquisition stages. However, we do not attempt in any way to propose a new set of CSFs to explain M&A performance, rather we push for multilevel understanding of M&A success with already identified CSFs in M&A literature.

Our contribution stems from how the application of a multilevel framework to CSFs may help expand our knowledge of the intertwined connections in M&A performance literature. By introducing a multilevel perspective to M&A research, the study opens possibly new

windows to inform M&A performance literature and hence, supports a fertile ground for future M&A research.

The remainder of this work is structured into four sections. In the next section, we present a multilevel framework that we have used in the content analysis of our dataset. In the following section, we detail our methodological steps in a chronological order together with the results of this paper. Next we discuss the systemic interplays in critical success factors and offer what they might mean in practical terms to managers. We close by providing some concluding remarks regarding our key contributions and offer invitation for further exploration on M&A performance research and practice.

A multilevel framework

A multilevel perspective to M&A research relates to the methodological individualism–holism debate in social sciences. This debate seeks answers to the question of "to what extent may, and should, social scientific explanations focus on individuals and social phenomena respectively?" (Zahle & Collin, 2014, p.2). It is widely concurred that methodological individualism means that social phenomena must be explained by showing how they result from individual actions whereas methodological holism means that explanations of social phenomena are centered round organizations, processes, and structures which cannot be reduced to individual actions (Heath, 2014). Both methodological individualism and methodological holism are used in M&A studies, which is understandable because M&A mechanically trigger changes either towards individual actors or the organization (firm) as a whole (Degbey & Saee, 2012).

On the individual level, these mechanically triggered adjustments or changes usually affect individual human cognitions, emotions and their social interaction within and between merging organizations (Barkema & Schijven, 2008a; Teerikangas, 2012; Sinkovics, Zagelmeyer & Kusstatscher, 2011), and also external individual relationships connected to the focal parties (Cartwright & Cooper, 1995). On the organizational level, these mechanically triggered adjustments or changes are mostly seen as a strategic and/or organizational move for growth and development. More importantly, these changes which predict, mediate and moderate M&A outcomes are not only restricted to the two parties involved in the process but equally they have influencing effects on external relationships connected to the focal parties across the merging and connected firms (Anderson, Havila & Salmi, 2001; Degbey & Pelto, 2013; Havila & Salmi, 2000). Consequently, it is clear that the debate of both methodological individualism and methodological holism is present in M&A studies as well. However, it is

rarely asked to what extent has M&A studies focused on individual and organizational levels, and how the interplay of CSFs at these respective levels may impact M&A performance.

Inspired by the methodological individualism–holism debate and the frameworks from Molloy, Ployhart and Wright (2011) and Powell, Lovallo and Fox (2011), we created a multilevel framework and applied it to the content analysis of our dataset. Our multilevel framework is illustrated in Table 1.

Table 1 A multilevel framework for M&A research (Adapted from Molloy et al., 2011, p.589; Powell et al., 2011, p. 1372)

	Core processes of interest	**Key concepts**	**Assumptions about firms**
Organizational level	*Primacy of incentives and social institutions:* Intergroup bargaining, problem solving, politics, conflict resolution, organizational learning, resource allocation	*Methodological holism:* Culture, reference groups, social cognition, process, structure	*Higher systemic level dominance over lower:* Firms are socially constructed and externally influenced, actions in firms are emergent, firms resolve strategy problems via conflict resolution and intergroup bargaining
Individual level	*Primacy of individual:* Individual decision making, intragroup decision making, sensemaking, perception, enactment, action generation	*Methodological individualism:* Bounded rationality, heuristics and biases, emotion, schema, meaning, action rationality	*Lower systemic level dominance over higher:* Firms' decisions are made by top executives and top management teams. Individual actions generate organizational structures and processes

According to Rousseau (2011), individual level relates to articles in which the unit of analysis is on the individual. In order to get a more detailed view, we used key concepts from methodological individualism. The studies in this category emphasize the primacy of individual and study such phenomena where individual actions shape organizational structures and processes. On the other hand, organizational level relates to articles in which the unit of analysis is on the organization/firm. This unit is emergent and arises out of the interactions of individuals and groups (Rousseau, 2011). For a more detailed guide, we used

key concepts from methodological holism. The studies in this category emphasize the primacy of incentives and social institutions. These social structures affect individual behavior.

Methods and Results

In selecting our literature, we depart from and adopt the dataset of the recent multidisciplinary review of Gomes et al., (2013), mainly because their work does not only build on prior meta-analytic leading journal articles review from such authors as King et al., (2004) and Haleblian et al, (2009), but also include books review. In addition, the work of Gomes et al., (2013) is the first to the best of our knowledge, to consider the dynamic interrelationship between CSFs at the pre-acquisition and post-acquisition stages. Based on our research objective, an inductive approach was considered appropriate for conducting our content analysis and illustration based on the current state of M&A literature, and the general controversial and inconclusive assumptions and findings within the various streams of M&A research (Gomes et al., 2013; Welch, Piekkari, Plakoyiannaki & Paavilainen-Mäntymäki, 2011).

The following preliminary methodological steps were replicated from the work of Gomes et al. (2013): identifying appropriate articles relating to M&A CSFs (i.e., focus on titles and abstracts for keywords); the use of Business Source Complete and ABI Inform as the main databases to identify articles; defining/selecting the appropriate journals within the database based on the Association of Business School (ABS) *Journal Quality Guide* for the review process (cf. Duriau, Reger & Pfarrer, 2007); and finally, narrowing the reviewed papers to recognized top-ranked general management, strategic management, international business, organization studies, and finance journals. In addition, to ensure a comprehensive overview of the literature, we followed the exact approach of Gomes et al., (2013) and focused on relevant articles and CSFs. This first methodological step is illustrated in the upper left corner of Figure 1.

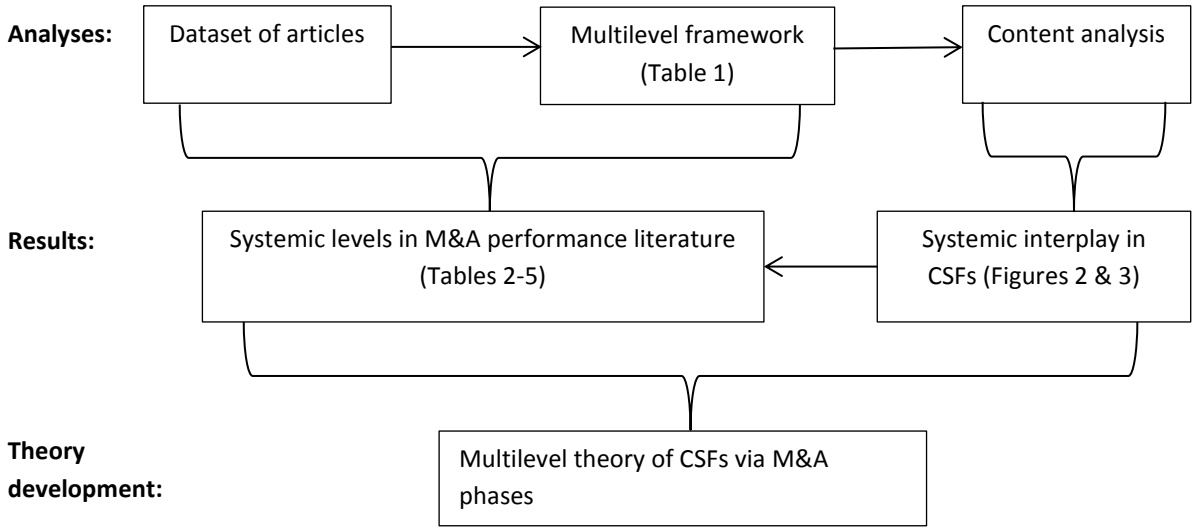

Figure 1 Methodological and theoretical development of this research

In our second methodological step, we categorized each selected article on the basis of our multilevel framework (see Table 1) into either individual level category or organizational level category. As a result of this analysis, we integrated them with pre-acquisition and post-acquisition phases into Table 2 and Table 4. In these tables (2 and 4), our work demonstrates additional combination – multilevel combination – to complement the multidisciplinary interrelationships (see, Gomes et al., 2013) espoused in M&A performance variables solely based on pre-acquisition and post-acquisition phases approach (cf. Quah & Young, 2005). Thus, the categorization shown in Tables 2 and 4 demonstrate that more understanding regarding M&A CSFs can be obtained when we adopt a multilevel perspective to complement the dichotomized pre-acquisition and post-acquisition stages of examining CSFs in M&A research. With this kind of categorization, we are able to obtain an approximate idea of the extent to which M&A studies have focused on individual and organizational levels. Moreover, this initial categorization of our dataset provides a glimpse to understanding the question: to what extent M&A studies have focused on individual and organizational levels and how the interplay of CSFs at these respective levels may impact M&A performance (cf. Zahle & Collin 2014).

----Please insert Table 2 about here----

To further illustrate and make sense of the articles in our categorization table (see, Table 2 above), we created Table 3, which shows individual and organizational level distribution of articles at pre–M&A phase.

Table 3 Individual and organizational level distribution of articles at pre-M&A phase

Pre-M&A phase: Critical success factors	**Individual level core processes/concepts**	**Organizational level core processes/concepts**
Choice and evaluation of the strategic partner (Pre1)	11 %	89 %
Pay the right price (Pre2)	0 %	100 %
Size mismatches and organization (Pre3)	17 %	83 %
Overall strategy and accumulated experience on M&A (Pre4)	13 %	87 %
Courtship (Pre5)	25 %	75 %
Communication before the merger (Pre6)	50 %	50 %
Future compensation policy (Pre7)	50 %	50 %
Average	**19 %**	**81 %**

Table 3 shows the distribution of articles discussing individual and organizational level core processes/concepts at pre-M&A phase. In **Pre1,** 'choice and evaluation of the strategic partner', one article examined individual level factors and eight articles examined organizational level factors. In **Pre2,** 'pay the right price', all the articles concentrated on organizational level factors. In **Pre3,** 'size mismatches and organization', one article examined individual level factors and five articles examined organizational level factors. As can be seen in tables 2 and 3 above, in **Pre 4,** 'overall strategy and accumulated experience on M&A', the number of articles were 2 (13%) and 14 (87%) respectively. The rest of the critical success factors: **Pre5**, **Pre6** and **Pre7** follow the same logic. Similar approach applies to post-M&A critical success factors' illustration in Table 4 (see below).

----Please insert Table 4 about here----

Similarly, we further created Table 5 to illustrate the individual and organizational level distribution of articles at post–M&A phase.

Table 5 Individual and organizational level distribution of articles at post-M&A phase

Post-M&A phase: Critical success factors	**Individual level core processes/concepts**	**Organizational level core process/concepts**
Integration strategies (Post1)	12 %	88 %
Post acquisition leadership (Post2)	70 %	30 %
Speed of implementation (Post3)	13 %	87 %
Post-M&A-integration team and disregard of… (Post4)	17 %	83 %
Communication during implementation (Post5)	57 %	43 %
Managing corporate and national cultural differences (Post6)	26 %	74 %
Average	**32 %**	**68%**

In our third methodological step, we conducted a content analysis of all the articles in each critical success factor. The purpose of this exercise was to find whether a particular critical success factor contains interplay between individual and organizational levels. The different possibilities for interplay uncovered were *upward* (individual level affecting organizational level), *downward* (organizational level affecting individual level), *both-way* (both individual level affecting organizational level and organizational level affecting individual level), and *no interplay* between levels. In the process of uncovering the specific interplay for each critical success factor, first, each author evaluated and formed their own opinion and after that the different possibilities were discussed until consensus was achieved. The results of this part in our analyses are presented in Figures 2 and 3 for pre-acquisition and post-acquisition CSFs respectively. Also, the various interplays are further explained at the discussion section of the paper.

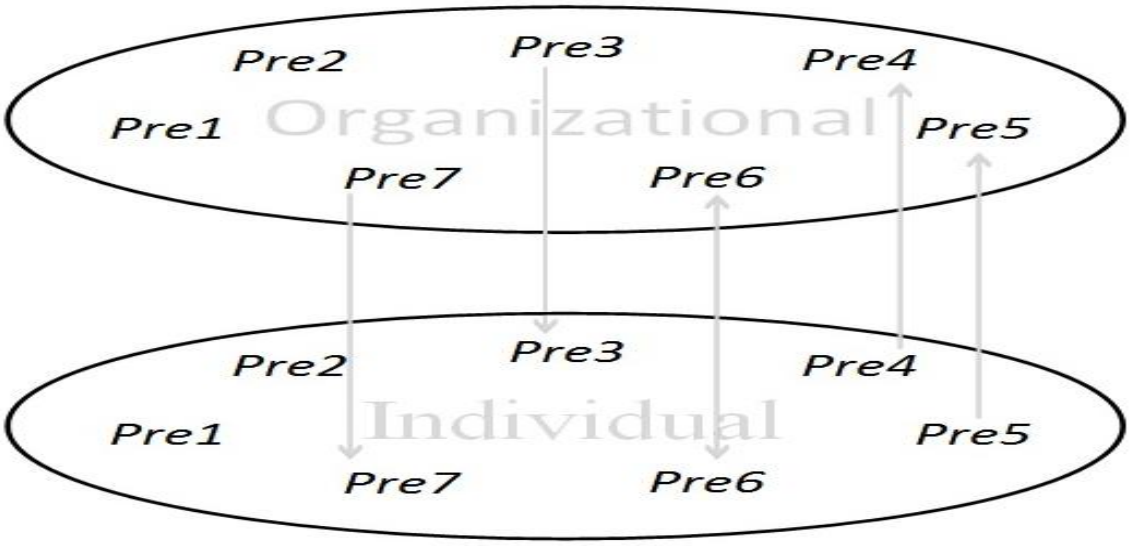

Figure 2 Individual and organizational level interplay in pre CSFs

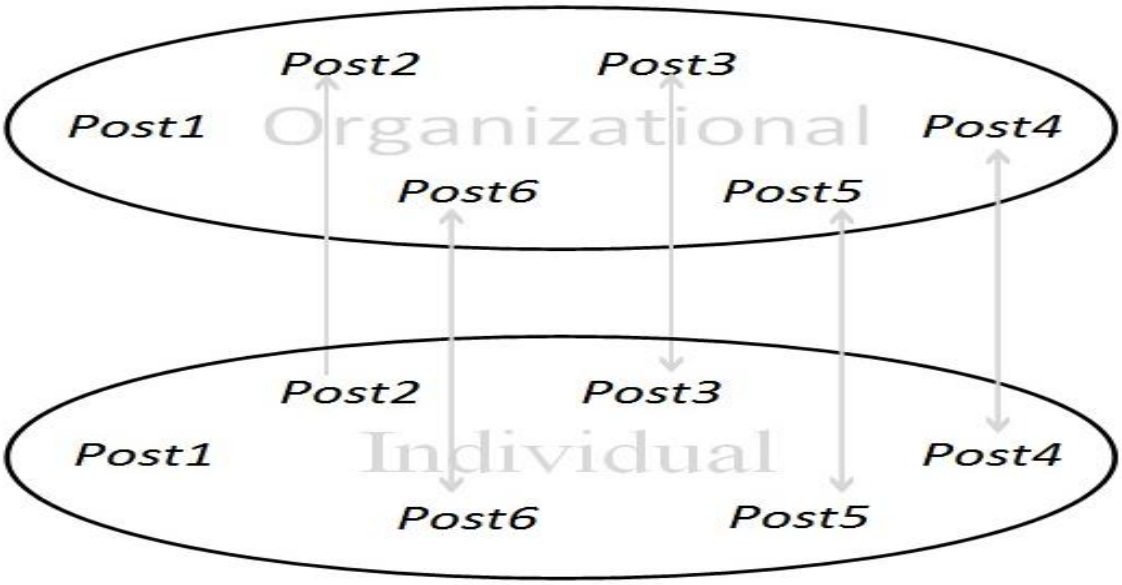

Figure 3 Individual and organizational level interplay in post CSFs

In our fourth methodological step, we compared the results of the previous two steps in order to find out which CSFs would need more individual level studies and which would need more organizational level studies. Since our categorization and distribution Tables 2–5 could not assist in the provision of a clear picture of which CSFs require more individual level studies and which ones need more organizational level studies, we sought added information from Figures 2–3 and the synergistic effect of that exercise led to the conclusion that those CSFs that show interplay between levels but have only few studies on either individual or organizational level need more studies respectively. Further, in some CSFs (e.g., in **Pre2** which operates exclusively on organizational level) it does not make sense to complement the existing organizational level studies with individual level studies. This is explained by our content analysis where we found that some concepts exist only at that level without any countervailing possibility. Similarly to **Pre2**, with **Pre1** and **Post1**, we found only concepts that are meaningful at that level. Hence, in these three CSFs research focused on the individual level should not be complemented with the organizational level and vice versa.

Following that, we are left with **Pre3, Pre4, Pre5, Pre6, Pre7** and **Post2, Post3, Post4**, **Post5, Post6**. According to our content analysis, in these CSFs individual level concepts and organizational level concepts are connected. We also show the direction of that connection. If this connection is valid, then it makes sense to have studies on both levels. In some CSFs (**Pre6, Pre7** and **Post5**), we observe an equal amount of studies on both levels. Also, in **Pre5, Post2** and **Post6** some studies exist on both levels, although their distribution is not even.

Following the previous section, four CSFs remain: **Pre3, Pre4** and **Post3, Post4**. These CSFs are heavily distributed towards one level, i.e. organizational level. In total these CSFs have only 5 individual level studies and 36 organizational level studies. This uneven distribution would not matter if in these CSFs individual level concepts and organizational level concepts were not connected. However, our content analysis shows that they are indeed connected. Thus, we conclude that these four (**Pre3, Pre4, Post3** and **Post4**) CSFs require more studies on individual level.

In the next section (i.e., discussion), we concentrate on illustrating the possible interplays in the critical success factors, and also we show the combined interplay on the same level (i.e., *intra-level and combined effects*).

Discussion

Pre-acquisition CSFs and distinct interplays

No interplay(s): From our categorization and distribution tables above (see, Table 2 and 3 respectively), we examine the pre-M&A CSF choice and evaluation of strategic partner **(Pre 1).** Our dataset together with the guideline framework do not show the interplay of this critical success factor in terms of its interplay between organizational and individual levels, .i.e., downward, upward or both-way interplays. Rather we observe that this critical success factor exhibit some key concepts and core processes of interest at the organizational level. For example, Nahavandi and Malekzadeh, (1988) as well as Weber, Shenkar and Raveh (1996) discussed the issue of cultural fit/compatibility of the merging parties. Also, Jemison and Sitkin (1986) also emphasized the M&A implementation process itself as a source of value creation in addition to strategic and organizational fits. On the other hand, this critical success factor exhibit similarly some key concepts and core processes of interest at the individual level without any interplay with organizational level. For example, the work of Leighton and Tod (1969) discussed about managerial decision and action generation by providing certain ground rules or schemas to M&A managers.

Pay the right price **(Pre2)** is so far the only critical success factor without any individual level article from our dataset. Also, in comparison to critical success factor **Pre1, Pre2** does not show any interplay between organizational and individual levels. However, it indicates an organizational level attribute as it is concerned with the evaluation of the amount one firm (acquirer) should pay to the other (acquired firm) in order to complete the acquisition deal. For example, our dataset exemplifies the act of deal overpayment from the work of Anslinger,

Copeland and Thomas, (1996); Hayward (2002); and Inkpen, Sundaram and Rockwood (2000), and as a consequence, this critical success factor exhibits symmetric/asymmetric interfirm bargaining as an organizational level core process from the multilevel framework (cf. Seth, Song & Pettit, 2000).

Downward interplay(s): Size mismatches and organization **(Pre3)** as a critical success factor shows a downward interplay, i.e. organizational level influence on individual level. For example, if the size of the acquisition is too small relative to the acquirer, then acquiring firm managers often might not give enough weight to its relevance, as their individual perceptions are shaped by this organizational level process or structure of 'too small' size (Gomes at al., 2013), or other managers might pay too much attention to this particular deal due to the nature of the acquired firm's organization (cf. Barney, 1991). Similarly, organizational level influence on individual level takes place when too big acquisition might trigger in-fighting between individuals (Ahuja & Katila, 2001; Chung, Singh & Lee, 2000; Kitching, 1967; Moeller, Schlingemann & Stulz, 2004). A second pre-M&A critical success factor in which the interplay between individual and organizational level works mainly *downward* is future compensation policy **(Pre7).** Two of the articles under 'future compensation policy' examined the effects of organizational level concepts or processes such as earn-outs and incentives to individual level ones such as attitudes and motivation (Anslinger, Copeland & Thomas, 1996; Inkpen, Sundaram & Rockwood, 2000). The other two articles took the individual as their unit of analysis, and examined from that point of view how executives' decisions are affected by organizational level compensation structures (Grinstein & Hribar, 2004; Devers, Cannella, Reilly & Yoder, 2007). Although the first-two analyzed articles on 'future compensation policy' employ organizational unit of analysis and the remaining two (third and fourth) used the individual as their unit of analysis, they both show the same downward interplays.

***Upward interplay(s)*:** Based on the analysis of articles from our dataset, the fourth pre-M&A critical success factor 'overall strategy and accumulated experience on M&A' **(Pre4)** operates mainly on organizational level. This is evidenced by the work of Hayward (2002), Vermeulen and Barkema (2001), and Barkema and Schijven (2008b), which concentrates explicitly on how organizations continuously learn to better their acquisition performance. These authors' works indicate mainly how organizational learning is derived from the firms' accumulation of experience, and in shaping its overall strategy. In the same vein, other scholars such as Haleblian, Kim and Rajagopalan (2006), and Zollo and Singh (2004) also discuss firms' overall strategy and experience of M&A.

However, these articles cited above derived their findings from organizational learning theory, which emphasizes the importance of organization's *individual members* experience with a particular action and its effect on generating organizational level routines (e.g. Cohen & Levinthal, 1990; Simon, 1991). Moreover, Simon (1991, p.125) argues that "an organization learns in only two ways: either by the learning of its members, or by ingesting new members who have knowledge the organization didn't previously have". Hence, we conclude that the critical success factor, **Pre4** shows an upward interplay.

The critical success factor, courtship **(Pre5)** shows an upward interplay. Individual relationships based on shareholder and/or board-member representation in multiple firms are more likely to generate courtship on organizational level (i.e., *upward interplay*). For example, Sebenius (1998) provides twelve ground rules of which the establishment of personal relationships is considered as one variable that will enable successful organizational level courtship.

***Both-way interplay(s)*:** Further, the critical success factor communication before the merger **(Pre6)** shows in our multilevel illustration *both-way* interplay, i.e., both *upward* and *downward*. For example, the critical success factor 'communication before the merger' **(Pre6)** combines many individual level core processes or concepts such as meaning, sensemaking, and schemata. These are influenced by the organizational communication directed to individuals. However, meaning, sensemaking, and schemata are used for enactment and action generation, which in turn can affect organizational level. If, for example, individuals perceive communication in negative light, a socially constructed distrust and uncertainty towards the ongoing M&A may emerge, and may result in negative organizational level consequences (cf. Angwin, 2001; Inkpen et al., 2000; Jemison & Sitkin, 1986).

Intra-level interplay(s) and combined effects: In addition to different types of interplays between levels, it might be beneficial to examine the combined effects of CSFs on the same level. For example, we suggest that the study of the critical success factor 'choice and evaluation of the strategic partner' **(Pre1)** which according to our content analysis almost solely operates at the organizational level would also benefit from individual level studies. From our dataset, the only individual level article under this success factor was Leighton and Tod (1969), which gave nine ground rules to managers for successful acquisitions. In contemporary management studies these rules would be called judgment policies. Judgment policies are understandings of causal relationships among salient variables – understandings that have been variously labeled as mental models, cognitions, cognitive frames, causal maps, schemas, belief systems, and decision rules (see Priem, Walters & Li, 2011).

Individuals in organizations evaluate, make choices, and take action every day, whether they are CEOs who may make a final choice to acquire a firm, or new frontline employees of the acquired firm who may either decide to follow the new rules of the acquirer company or not. Judgment policies form the foundations on which individuals base their evaluations, choices and actions. Surprisingly, there is much less management research examining individuals' judgment policies in key situations, such as the final decision to acquire a firm by CEOs or decisions by frontline employees mentioned above (Priem, Walters & Li, 2011). Using the understanding of judgment policies as our point of departure, we show in the next paragraph how the critical success factor **Pre1** may interact with **Pre 4** on the same individual level, and possibly generate combined effects such as new organizational level routines.

From our content analysis, critical success factor **Pre1** which concerns choice and evaluation has more organizational level core concepts/processes than individual level core concepts/processes. At the individual level, mental models, schemas, or judgment policies etc. of managers may influence the choice and evaluation of the strategic partner. Similarly from our content analysis, critical success factor **Pre4** which concerns accumulation of experience and overall strategy has more organizational level core concepts/processes than individual level core concepts/processes. At the individual level, managers' learning from prior M&A may influence the accumulation of experience.

Therefore, **Pre1** and **Pre4** may provide a possibility for a combined effect from their judgment policies (derived from choice and evaluation) and learning (derived from accumulation of experience) in order to create new organizational level routines independent of individual managers. This intra-individual level interplay could help us understand questions such as "can the organization develop routines to capture these individual managers' judgment policies and learning?" "Could judgment policies of ordinary workers in some instances help see the benefits of M&A better than top managers?" "Are all individuals' judgment policies concerning M&A routinely transferring to organizational level?"

From our prior discussions on the various pre-M&A CSFs, **Pre1** (Choice and evaluation of strategic partner), **Pre2** (Pay the right price) and **Pre5** (Courtship) for example, exhibit a common feature at the intra-organizational level, i.e., they largely constitute part of the evaluation process of a prospective target. And while we are unable to discern any direct combined effect from the interplay of these three CSFs, we conveniently state that these evaluation processes include interfirm bargaining at the organizational level which is

essentially influenced by courtship, and consequently may determine the outcome of **Pre 1** and **Pre 2.**

Post-acquisition CSFs and distinct interplays

***No interplay*:** Integration strategies **(Post 1)** as the first post critical success factor show no interplay between levels. Integration in general refers to an interactive and gradual process in which the merging firms learn to work together and cooperate as a unified entity, and make decisions regarding, e.g., the degree of unification, direction, content and functional areas of integration (Haspeslagh & Jemison 1991; Öberg & Tarba 2013). M&A integration is often regarded as a difficult process, strongly internally focused between the two merging firms, and a crucial aspect of the process for M&A success. Hence, strategies adopted for integration matter, taking into consideration the different contexts and motives of M&A. This critical success factor functions at the organizational level, as it is mainly focused on what takes place between the two firms. For example, integration strategies such as those focusing on organizational/cultural fit (see Nahavandi & Malekzadeh, 1988) or strategic fit (Howell, 1970) are all discussing issues at the organizational level.

Upward interplay(s): Post-acquisition leadership **(Post2)** from our dataset shows an *upward* interplay. For example, faulty management during M&A implementation may lead to failure (Pritchett et al, 1997). Also, sound leadership style may influence successful implementation of M&A process (Angwin & Meadows, 2009; Vermeulen & Barkema, 2001). Also see the work of Sitkin and Pablo (2005) on leadership style, and personality characteristics (Waldman & Javidan, 2009).

Both-way interplay(s): Speed of implementation **(Post3),** as a critical success factor shows *both-way* interplay. The work of Vester (2002) provides a supporting argument that relatively high speed may cause discomfort among managers and employees and consequently affect the M&A integration process – a clear indication of a downward interplay. On the other hand, Light's (2001) work clearly indicates an individual decision-making perspective on M&A speed of integration process (i.e., upward interplay), by emphasizing that mistakes resulting from quick/rapid managerial decisions might not be as harmful to M&A integration process as compared to the cost of losing momentum of the business due to low speed.

Post integration team and disregard of day-to-day business activities **(Post4)** as the fourth post critical success factor exerts *both-way* interplay on M&A performance. A downward interplay is present in how the complexity of the acquisition process affects managers' time to focus on day-to-today business activities of the firm (Howell 1970; Ghemawat & Ghadar

2000), and limits their attention on internal growth and innovation. On the other hand, some scholars demonstrate an upward interplay by emphasizing that a group of individuals may be formed to coordinate the entire post- acquisition process (Inkpen et al., 2000; Jemison & Sitkin 1986), and the earlier this group of individuals are identified and brought together, the greater the chances of harnessing the necessary strategic fits between the merging organizations (Schweiger et al., 1993).

Communication during implementation **(Post5)** employs both-way interplay. M&A communication process is validated through individual managers' actions (i.e., downward interplay). For an upward interplay, managers' over-communication to employees, particularly, customer-facing ones could jeopardize the possibility to reverse already disseminated information to third parties in case of changing circumstances, which in turn, may affect the integration process and eventually destroys or weakens M&A performance.

Managing corporate and national cultural differences **(Post6)** shows both-way interplay. An example for an upward interplay from our dataset shows that unsuccessful navigation of individual-level outcomes such as individual cross-cultural adjustment and synergistic learning may affect the realization of organizational outcomes such as technology- transfer, knowledge-sharing and global growth, as a consequence of failure in integration (Brenen & Peterson, 2009). Another example of an upward interplay is the work of Graebner (2004), which emphasized that the role of the acquired manager is critical in resolving post-acquisition integration implementation dilemmas, and consequently, improve the value creation in the integration of firms. With respect to downward interplay on the other hand, Lubatkin, Schweiger & Weber (1999), complement earlier attempts to explain the departure of top managers of acquired firms using post-merger conditions that create perceptions of relative standing by measuring post-merger perceptions of relative standing themselves (and not the conditions that create the perceptions) to reveal their effects on acquired top executives' departure.

In conclusion, prior management and organization studies emphasize that the prevailing logic in multilevel management research has been that the larger context within which individual level processes are nested generally exerts a greater downward influence than what individual level variables exert on the higher-level context (Mathieu & Chen, 2011). Yet, upward influences can still be prominent in instances where higher-level phenomena have yet to fully crystallize or form (Chen, Kanfer, DeShon, Mathieu, & Kozlowski, 2009; Morgeson & Hofmann, 1999) – during an M&A process for instance. Our results show that critical success factors in M&A performance literature concentrate more on organizational level than

individual level. This is not surprising because the predominant analytical focus of research in this field has remained at the organizational (firm) level (cf. Chatterjee 1992; Datta 1991; Larsson & Finkelstein 1999).

Moreover, results from Tables 2–5 indicate that there are more individual level studies at post-acquisition stage than individual level studies at pre-acquisition stage. There might be two possible reasons for this. First, if our existing knowledge on M&A performance literature is a reflection of practice in the real world, then we infer that individual level influences are greater at the post-acquisition phase than at the pre-acquisition phase. Second, if the latter assertion is not a reflection of practice in the real world, then it would mean that academic literature is biased or skewed toward either individual or organizational level in some CSFs. In other words, some CSFs might be lacking either individual level or organizational level studies. Our comparative analysis of results presented in Tables 2–5 and Figures 2–3 indicate that the second reason suggested above holds for M&A CSFs. That is, we could not make conclusions based on Tables 2–5 alone but with added information from Figures 2–3, we were able to conclude that those CSFs that have shown interplay between levels but have only few studies on either level need more studies on the lesser studied level. In our dataset, for example, it was evident that critical success factor **Pre3** (downward), **Pre4** (upward), **Post 3** (both-way) and **Post4** (both-way) require further individual level studies. We acknowledge that the number of articles in each critical success factor category is quite small, and new additions or different interpretations in categorization might change the percentages, but the logic of our multilevel approach to understanding M&A performance still holds even if these variations occur.

In practical terms, the discussions on the aforementioned academic findings of this research can be applied as a map by managers when evaluating different scenarios in their M&A endeavor. For example, if a manager is aware that a particular shareholder or board member is a representative on several other companies' board, then this individual level representation has a core element of the critical success factor, courtship (**Pre5**), which can be used as a map to picture all related scenarios such as the choice and evaluation of a potential strategic partner to acquire (**Pre1**) and paying the right price for a target (**Pre2**) at the higher systemic level. The above elaboration is shown in Figure 4 with whole lines.

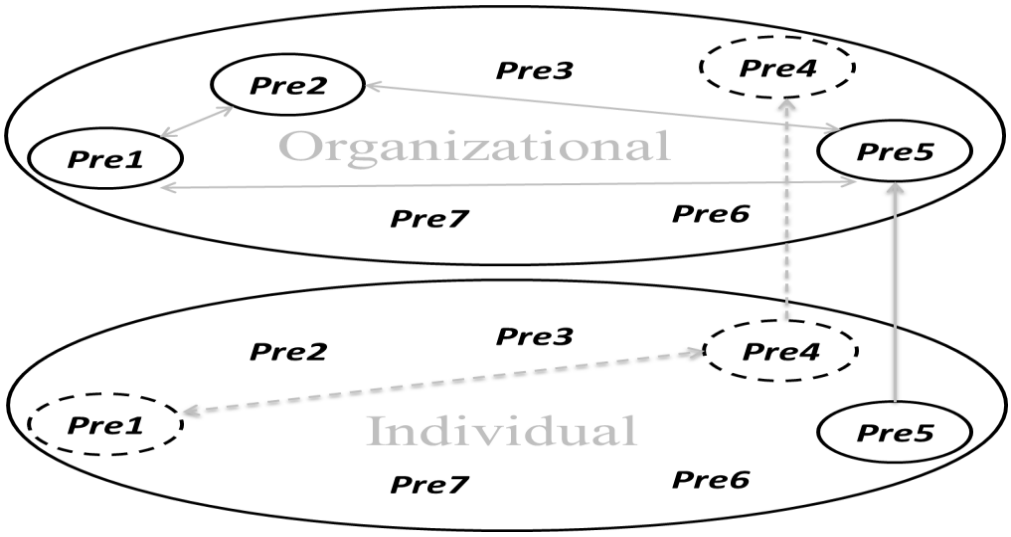

Figure 4 Using a multilevel logic to illustrate a managerial application

Similarly, the intra-individual level interplay between **Pre1** and **Pre4** provides a possibility for managerial judgment policies to address important organizational level needs. This latter aspect is illustrated by the dotted lines in Figure 4.

Concluding remarks

We began by acknowledging the strategic, monetary and social importance of M&A research and practice, spanning over more than half a century across multiple disciplines. Yet, it is inconclusive in revealing dynamic interrelationships between and among CSFs underpinning their performance, and this perhaps might explain the high failure rate (Bower, 2001; Kitching, 1967; Lees 2003). Indeed, what we see is the availability of huge body of M&A work with many prescriptions for enhancing performance, but little work in terms of establishing connectivity, for example, across research streams in which CSFs are embedded and can interact (Angwin & Vaara, 2005).

Lately, Gomes et al., (2013) conducted a multidisciplinary review of CSFs in attempt to address the lack of linkages between CSFs both within and across phases of the M&A process. We contend that this is an important step but it is incomplete until the multidisciplinary approach is linked with a multilevel approach for achieving a more holistic picture of M&A performance research and practice. As a consequence, we employ a multilevel perspective/approach to show how we can achieve a better understanding of M&A performance through the integration of disciplines and levels. In general, our study contributes to the ongoing cross-fertilization debate and establishes a foundation for the theoretical importance of a multilevel perspective in M&A performance research.

We believe our research offers contributions, i.e., provides new theoretical and managerial insights, and depicts a useful point of departure for future research in M&A performance. In terms of *theoretical contribution*, our research demonstrates the application of a multilevel perspective to M&A performance literature in four main ways. First, we highlight that the pre-M&A and post-M&A dichotomy of analyzing multidisciplinary CSFs can be complemented with a multilevel perspective to improve our understanding of the interplay within and across CSFs at individual and organizational levels (cf. Aguinis, et al., 2011; Hitt et al., 2007; Molloy et al., 2011; Powell et al., 2011). As a consequence, our work shows how to bridge the gap between disciplines and levels when examining M&A CSFs. Second, our study provides an approximate distribution that shows to what extent M&A studies have focused on individual and organizational levels. Third, on the basis of our study, we observe four distinct interplays – upward, downward, both-way and no interplay, plus intra-level and combined effects – through which CSFs may interplay to enhance our theoretical knowledge of M&A performance. Fourth, by combining information regarding the extent to which M&A studies have focused on individual and organizational levels with information on the interplays in each critical success factor, we are able to conclude on the exact critical success factor (s) and level in which further studies are most needed. Hence, this combined information guides future studies and therefore amounts to multilevel M&A performance theory building.

For *managerial implications*, first, we emphasize that our multilevel approach provides a more holistic perspective, and managers would benefit if they take into account the simultaneous interplay of multidisciplinary CSFs at pre-M&A and post-M&A phases, and also at individual and organizational levels. Second, this study reveals to managers the specific M&A phase and level that CSFs are largely centered in extant M&A studies. A higher percentage (approximately 70%) of the CSFs at post-M&A phase is distributed under organizational level, supporting the predominant analytical focus in extant literature (cf. Chatterjee 1992; Larsson & Finkelstein 1999), and also corroborating the current belief that post-M&A integration phase is decisive for success (Bauer & Matzler 2013; Homburg & Bucerius 2005).

However, we advise managers to equally consider the importance of pre-M&A CSFs if they want to enhance their M&A performance. Further, only a small percentage of CSFs is distributed at the individual level, which suggests that more studies on managerial decision making and judgment, action generation, sensemaking etc. are required to better inform managers about the importance of individual level core processes/concepts mentioned above

rather than only a deeper focus on organizational level core processes and concepts. The latter point is supported by the work of Powell et al. (2011), who stated for example that the failed mergers of AOL/Time-Warner and HP/Compaq clearly resulted from poor executive judgment. Furthermore, we also pose some pertinent questions for managerial consumption from the combined effects of CSFs on the same level (i.e., intra-level interplay and combined effects). These questions we suggest are critical to showing the interaction effects of such success factors within the same level.

On the whole, we believe that employing a multilevel perspective to examining CSFs in M&A performance literature and practice are topical but still at embryonic stage, and it has a great opportunity to unearth some of the unexplained variance in M&A performance. Hence, we invite M&A scholars to explore these avenues in future research works.

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Appendix:

Table 2 Categorization of pre-acquisition performance variables against the multilevel framework

	Individual level	**Organizational level**
Pre-merger Phase	Leighton & Tod (1969) PRE1, PRE4 Finkelstein & Haleblian (2002) PRE3 Krishnan, Miller & Judge (1997) PRE4 Sebenius (2002) PRE5 Sebenius (1998) PRE5 Light (2001) PRE6 Hubbard & Purcell (2001) PRE6 Teerikangas (2012) PRE6 Grinstein & Hribar (2004) PRE7 Devers, Cannella, Reilly & Yoder (2007) PRE7	Jemison & Sitkin (1986) PRE1, PRE4, PRE5, PRE6 Nahavandi & Malekzadeh (1988) PRE1 Kitching (1967) PRE1, PRE3, PRE4, PRE5 Angwin (2001) PRE1, PRE6 Weber, Shenkar & Raveh (1996) PRE1 Lubatkin (1987) PRE1 Wang & Zajac (2007) PRE1 Boyle & Winter (2010) PRE1 Inkpen, Sundaram & Rockwood (2000) PRE2, PRE4, PRE6, PRE7 Howell (1970) PRE2, PRE4 Anslinger, Copeland & Thomas (1996) PRE2, PRE7 Bower (2001) PRE2 Tuch & O'Sullivan (2007) PRE2, PRE3 Seth, Song, & Pettit (2000) PRE2 Datta & Puia (1995) PRE2 Hayward (2002) PRE2, PRE4 Moeller, Schlingemann & Stulz (2004) PRE3 Chung, Singh & Lee (2000) PRE3 Ahuja & Katila (2001) PRE3 Vermeulen & Barkema (2001) PRE4 Haleblian, Kim & Rajagopalan (2006) PRE4 Barkema & Schijven (2008a) PRE4 Delong & Deyoung (2007) PRE4 Barkema & Schijven (2008b) PRE4 Colombo, Conca, Buongiorno & Gnan (2007) PRE4, PRE5 Very, Lubatkin, Calori & Veiga (1997) PRE4 Brouthers & Brouthers (2000) PRE4 Zollo & Singh (2004) PRE4 Li & Guisinger (1991) PRE5 Barkema, Bell & Pennings (1996) PRE5 Shneider & De Meyer (1991) PRE5

Table 4 Categorization of post-acquisition performance variables against the multilevel framework

	Individual level	**Organizational level**
Post-merger Phase	Lubatkin, Calori, Very & Veiga (1998) POST1 Schweiger & Goulet (2005) POST1 Very, Lubatkin, Calori & Veiga (1997) POST1, POST6 Ashkenas & Francis (2000) POST2 Krug & Nigh (2001) POST2 Angwin, Stern & Bradley (2004) POST2 Angwin & Meadows (2009) POST2 Light (2001) POST2, POST3, POST5 Walsh (1988) POST2 Walsh & Ellwood (1991) POST2 Cannella & Hambrick (1993) POST2 Krishnan, Miller & Judge (1997) POST2, POST6 Krug & Hegarty (1997) POST2, POST6 Karaevli (2007) POST2 Nemanich & Keller (2007) POST2 Waldman & Javidan (2009) POST2 Kavanagh & Ashkanasy (2006) POST2 Ghemawat & Ghadar (2000) POST4 Leighton & Tod (1969) POST5 Bastien (1987) POST5 Hubbard & Purcell (2001) POST5 Graebner & Eisenhardt (2004) POST6 Brannen & Peterson (2009) POST6 Lubatkin, Schweiger & Weber (1999) POST6 Graebner (2004) POST6	Puranam, Singh & Zollo (2006) POST1, POST6 Cording, Christmann, & King (2008) POST1, POST6 Schweizer (2005) POST1 Larsson & Lubatkin (2001) POST1 Nahavandi & Malekzadeh (1988) POST1 Howell (1970) POST1, POST4 Capron & Mitchell (1998) POST1 Bjorkman, Stahl & Vaara (2007) POST1, POST6 Birkinshaw, Bresman & Hakanson (2000) POST1 Child, Faulkner & Pitkethly (2000) POST1 Vaara (2003) POST1 Slangen (2006) POST1, POST6 Larsson & Finkelstein (1999) POST1 Ranft & Lord (2002) POST1, POST3 Puranam, Singh & Chaudhuri (2009) POST1, POST6 Spedale, van Den Bosch & Volberda (2007) POST1 Calori, Lubatkin & Very (1994) POST1 Vaara (2002) POST1 Schweiger & Goulet (2005) POST1 Chatterjee, Lubatkin, Schweiger & Weber (1992) POST1, POST6 Puranam & Srikanth (2007) POST1, POST6 Ellis, Reus & Lamont (2009) POST1, POST6 Makri, Hitt & Lane (2010) POST1 Ashkenas, DeMonaco & Francis (1998) POST2, POST3 Angwin (2001) POST2 Weber, Shenkar & Raveh (1996) POST2, POST6 Inkpen, Sundaram & Rockwood (2000) POST2, POST3, POST4, POST5 Anslinger, Copeland & Thomas (1996) POST2, POST3 Vermeulen & Barkema (2001) POST2, POST4, POST6 Homburg & Bucerius (2005) POST3 Olie (1994) POST3 Homburg & Bucerius (2006) POST3 Jemison & Sitkin (1986) POST4 Deng (2010) POST4 Schweiger & DeNisi (1991) POST5 Eisenberg & Witten (1987) POST5 Teerikangas & Very (2006) POST6 Weber (1996) POST6 Kogut & Singh (1988) POST6 Morosini, Shane & Singh (1998) POST6 Reus & Lamont (2009) POST6 Chakrabarti, Gupta-Mukherjee & Jayaraman (2009) POST6 Sarala & Vaara (2009) POST6 Vaara, Sarala, Stahl & Björkman (2011) POST6 Stahl & Voight (2008) POST6 Datta (1991) POST6