

## HOW TO IMPROVE ACQUISITION PERFORMANCE: THE ROLE OF A DEDICATED M&A FUNCTION, M&A LEARNING PROCESS, AND M&A CAPABILITY

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*How to improve the performance of mergers & acquisitions (M&A) continues to be a confounding issue. We show that a dedicated M&A function is a new phenomenon that is positively related to a firm's M&A performance and M&A learning process. Moreover, we find that an M&A learning process (involving articulation, codification, sharing, and internalization) helps build up an M&A capability, which in turn is positively related to a firm's overall M&A performance. We use survey data from a sample drawn from the M&A activities of German firms to test our arguments. Ltd. Copyright © 2015 John Wiley & Sons, Ltd.*

### INTRODUCTION

Extant research on mergers and acquisitions (M&A) has made two important observations: (1) M&A are conducted with multiple motives in mind (Schweizer, 2005), and the M&A process is very complex (Larsson and Finkelstein, 1999), calling for a more detailed and differentiated analysis of the M&A activities and its organizational antecedents (Haleblian *et al.*, 2009); (2) most acquisitions create little or no value (e.g., Aktas, de Bodt, and Roll, 2009, 2011; King *et al.*, 2004), and the value gains and losses are unevenly distributed between bidder and target (Moeller, Schlingemann, and Stulz, 2004, 2005). Given the highly complex

nature of M&A, no common way of measuring M&A success has been identified so far (Javidan *et al.*, 2004).

Superior M&A performance may be explained by prior M&A experience. Since studies analyzing this do not present consistent results (Al-Laham, Schweizer, and Amburgey, 2010; Hayward, 2002), the question arises how firms can manage M&A to increase the probability of M&A success. In the alliance context, Kale and Singh (2007: 981) assume that “[f]irms with greater alliance success are presumed to have alliance capability.” We argue that the development of an M&A capability (Laamanen and Keil, 2008) and the existence of a dedicated M&A function as a new phenomenon have a positive impact on M&A performance. So far, there are no studies stating what exactly constitutes an M&A function (or how it is built).

This study contributes to M&A research in several ways. First, our paper analyzes the relationship between an M&A function, M&A capability, and

Keywords: M&A function; M&A capability; M&A experience; M&A performance; structural equation model

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M&A performance. Second, we show that an M&A function has a positive impact on the improvement of M&A performance. Third, the development of an M&A capability allows for an integrative perspective on the overall acquisition process. By that, we address the request for a synthesis of the mostly fragmented M&A research (Haleblian *et al.*, 2009). We demonstrate that an M&A function, which oversees and coordinates a firm's M&A activities, is positively related to a firm's M&A learning process (involving articulation, codification, sharing, and internalization), resulting in the formation of an M&A capability, which subsequently leads to greater M&A performance. Fourth, we contribute to (dynamic) capability research in general by providing a precise operationalization of an M&A capability. Fifth, we adapt and validate Kale and Singh's (2007) alliance capability scale to the M&A context.

This paper is structured as follows. After laying the theoretical foundations and developing our hypotheses, we describe the research design and methodology, and then present and discuss the results of our structural equation model.

## THEORY AND HYPOTHESES

### M&A function and M&A performance

An M&A function can be found at the corporate level, business unit level, or both levels. We assume that the creation of a separate, dedicated organizational unit—known as an M&A function—which is responsible for capturing prior experience, is important in enabling firms to gain, integrate, and disseminate their M&A process and management know-how. The M&A function comprises different tasks (Voss, 2008): The deal preparation phase focuses on making possible general strategic decisions via information gathering and analysis, the transaction phase focuses on the technical execution (due diligence, planning of integration measures), and the integration phase focuses on the smooth integration of the newly acquired unit. The required resources in the integration phase are normally not drawn from the M&A function, but from the business units involved (Meckl, 2004), so that they can also play an important role.

Establishing an M&A function helps bundle all M&A-related knowledge within a firm, which is in line with March, Sproull, and Tamuz's (1991) view that organizations learn from past experiences. This

fulfills at least the following roles (Haspeslagh and Jemison, 1991). First, an M&A function encourages business units to adopt a proactive acquisition approach, instead of merely reacting. Second, it acts as a clearinghouse for acquisition leads and ideas, thus differentiating between strategically relevant proposals and irrelevant ones. Third, it fosters the establishment of deliberate learning mechanisms and accumulates experiential learning. Fourth, it provides the acquisition process with professional experience and know-how. However, the actual M&A decisions remain with business units or corporate management. Given that the M&A function supports the M&A process and helps build up M&A know-how and experience, we assume that the M&A function has a positive impact on M&A performance. Thus:

*Hypothesis 1: An M&A function has a positive impact on M&A performance.*

### M&A function, M&A learning process, M&A capability, and M&A performance

The existence of an M&A function not only helps structure the M&A learning process, but also helps build up an M&A capability. Operational acquisition capabilities can be allocated to the three previously described M&A phases (preparation, transaction, and integration), which vary depending on the respective tasks and processes per phase (Chatterjee, 2009).

We assume that many M&A sub-processes are similar across deals (Barkema and Schijven, 2008; Haspeslagh and Jemison, 1991). Thus, gaining valuable experience in certain tasks that are generalizable across acquisitions is possible, but requires deliberate learning mechanisms (Chatterjee, 2009). This leads to the creation and development of an M&A capability; however, how does this development take place? At this point, the idea of an "M&A learning process" that is directed toward helping a firm learn, accumulate, and leverage M&A know-how comes into play. This idea is built on prior research on dynamic capabilities (Kale, Dyer, and Singh, 2002; Kale and Singh, 2007; Zollo and Winter, 2002) as well as the knowledge-based view of the firm (Grant, 1996; Nonaka, 1994).

By building on organizational learning theory (Huber, 1991; March *et al.*, 1991), Hayward (2002) found that acquirers can best learn from acquisitions that are moderately similar to the businesses and

size of prior acquisitions. Depending on the similarity or dissimilarity between focal and prior acquisitions, a firm can decide to either use its experience of prior acquisitions (generalization) or avoid doing so (discrimination). In order to do this, a firm can take the following practical steps, which are based on ideas taken from the M&A literature (Zollo and Singh, 2004) and the alliance literature (Kale and Singh, 2007; Kale *et al.*, 2002), as well as from interviews with M&A experts: (1) collect information on all M&A transactions in data-banks, and register M&A experts in a contact list; (2) based on this collected information, define a formalized M&A process, develop checklists, recommendations, and templates; (3) establish M&A committees and roundtables to make the collected M&A knowledge available to all interested parties in the firm; (4) apply this accumulated knowledge to subsequent M&A transactions; and (5) establish a central, company-wide steering committee that provides support to specific M&A transactions and that can be contacted in case M&A transactions cannot be managed with the existing knowledge. Moreover, all M&A managers are encouraged to share new challenges with the rest of the firm. These practical steps can be considered as a sort of “job description” of the M&A function, which needs to manage the M&A learning process in order to build and develop an M&A capability.

Following March *et al.*'s (1991) view that organizations strive to enhance the knowledge they have, the creation of an M&A capability requires deliberate learning mechanisms. Based on the knowledge-based view (Zander and Kogut, 1995), Kale and Singh (2007) investigate the mechanisms through which organizations develop capabilities: (1) articulation, (2) codification, (3) sharing, and (4) internalization. First, extending Zollo and Winter's (2002) view, we argue that the articulation of tacit knowledge has a positive influence on the development of capabilities and on M&A performance. The articulation of M&A know-how facilitates the *ex post* understanding of decisions made during prior M&A. The combination of debriefing sessions and a formalized review process requires managers to reflect on past activities and link their actions to the associated outcomes (Zollo and Winter, 2002). Insights gained from this process can lead to adaptations of existing routines or to an enhanced recognition of a need for change (Chatterjee, 2009). The externalization of tacit knowledge reduces the risk of knowledge loss when turnover occurs

(Kale and Singh, 2007). Thus, it is beneficial when managers keep a record of the status quo, the progress of the respective M&A, and the contact details of the relevant internal and external experts. These articulation activities enhance a firm's learning process, leading to more effective M&A management and improved M&A performance. The articulation of tacit M&A knowledge is also a necessary precondition for its codification.

Second, Zollo and Singh (2004) show that codification has a positive impact on M&A performance. Codification leads to a well-defined, repeatable process that enables a larger number of personnel to gain acquisition knowledge, thereby making the organization less dependent on individuals (Hayward, 2002). An M&A function allows collecting and understanding the reasons for the success and failure of past actions and decisions (Haleblian, Kim, and Rajagopalan, 2006).

Third, during the acquisition preparation and integration phase, knowledge sharing and transfer are important (Barkema and Schijven, 2008). Formal ways of transferring and sharing knowledge is conducted via committees, task forces, meetings, seminars, and retreats. Informal ways of doing so via phone and e-mail are other options. Incentives for employees to work together and share their personal M&A knowledge are a prerequisite for efficient knowledge sharing (Haspeslagh and Jemison, 1991). This ensures the dissemination of relevant knowledge to the right places within a firm and helps managers make sense of their M&A experience.

Fourth, the internalization of acquisition knowledge focuses on the absorption of M&A knowledge (Kale and Singh, 2007). Using mentoring, training, and workshops help M&A managers better understand and absorb the new know-how gained in focal acquisitions. Internalized knowledge serves as a knowledge base from which managers can consolidate their knowledge regarding M&A. Accessing codified M&A knowledge and best practices online via an intranet supports the internalization process (Ashkenas, DeMonaco, and Francis, 1998).

To sum up, we argue that an M&A function supporting a firm's M&A learning process is positively linked to an M&A capability, which, in turn, influences M&A performance. Thus:

*Hypothesis 2: An M&A function has a positive impact on the development of an M&A capability.*

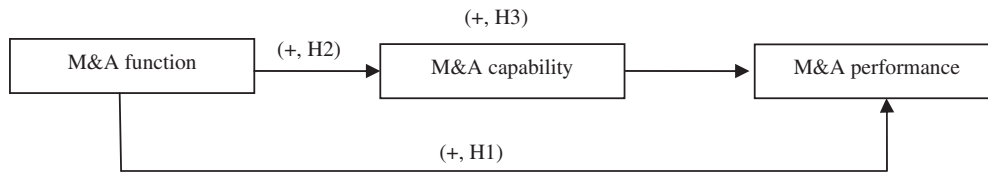


Figure 1. Research model

*Hypothesis 3: An M&A capability mediates the positive relationship between an M&A function and M&A performance.*

Figure 1 presents our research model.

## RESEARCH DESIGN AND METHODOLOGY

### Sample

The units of analysis are German firms that had acquired at least one German firm between 2003 and 2006. (1) Data were collected using a questionnaire addressed to CEOs and CFOs in small- and medium-sized firms and heads of M&A or business development units in larger firms. The firms were identified based on the Thomson ONE database with a minimum deal value of US \$1 million. (2) We excluded transactions where the acquiring company acquired less than 51 percent, or if there was no information about the acquired share. (3) Following Carow, Heron, and Saxton's (2005) study, transactions were removed if the acquirer was from the financial sector, because banks and insurance firms are subject to legal and institutional regulations that impact evaluation (Cornett and De, 1991). Moreover, financial investors are usually motivated by short-term gains, while we focus on long-term, strategic acquisitions. (4) All transactions from the real estate sector were excluded because the targets were mostly real estate portfolios and did not match strategic investment criteria. (5) To switch from the acquisition to the acquirer level and in order to avoid double counting, we excluded all multiple transactions per acquirer from the list. Each acquiring company—irrespective of whether it had undertaken single or multiple transactions—was thereafter included only once in the population. (6) After contacting the companies, we eliminated all insolvent companies and wrongly documented transactions that did not fit the purpose of the study.

In total, we excluded 1,319 transactions from the original 2,070, leading to a population size of

751 firms. The target respondent in each company was contacted by phone and asked for his/her willingness to participate. This increased our response rate and reduced key informant bias, given that we asked the most knowledgeable person to participate. A total of 126 of the contacted persons refused to take part, resulting in only 625 questionnaires being sent. Of these, we received 205 completed surveys, thus attaining an above-average response rate of 32.8 percent (Berekoven, Eckert, and Ellenrieder, 2004). Of that total, we identified 124 firms with a dedicated M&A function. We observed no significant difference between early and late respondents, indicating that nonrespondent bias was not a problem. The data obtained included only a few missing values, which, given that these data were missing randomly, were replaced by an estimation-maximization procedure in SPSS (Little and Rubin, 2002).

### Variables

*M&A performance* is the dependent variable used in this study. We followed Datta and Grant's (1990) and Capron's (1999) operationalization of M&A performance by using subjective evaluation criteria. Respondents were asked to assess the development of sales, market shares, operating margin, synergy realization, and overall satisfaction relative to the primary expectations on a five-point Likert scale. In addition, the respondents were asked whether, in retrospect, they would make the acquisition again.

Subjective evaluation measures may be prone to common method bias. To reduce single source bias, we asked each respondent for the e-mail addresses of two other colleagues capable of evaluating the acquisition's performance. Those contacts were then invited to fill out a separate questionnaire regarding M&A performance as a dependent variable; a total of 22 additional respondents filled out this second questionnaire. To assess the reliability of the key informants, intraclass correlation coefficients (ICCs) were calculated. The ICC (1)



Table 1. ICC for matched pairs of first and second respondent

Variable pair	ICC (1)
Perf_1: Relative to our expectations, we are very satisfied with the development of sales	0.264
Perf_2: Relative to our expectations, we are very satisfied with the development of our market share	0.356
Perf_3: Relative to our expectations, we are very satisfied with the development of the operating margin	0.378
Perf_4: Relative to our expectations, we are very satisfied with the realization of synergies	0.457
Perf_5: Relative to our expectations, we are very satisfied with the overall success of the acquisition	0.420
Perf_6: From today's point of view, we would undertake the acquisition again	0.437

can be interpreted as “an index of interrater reliability (the extent to which raters are substitutable)” (Bliese, 2000: 355). The ICC (K) is a reliability measure for group means (Bliese, 2000). Both measures combine absolute rater consensus and relative rater consistency. Given that individual ratings are not aggregated in this study, ICC (1) is used. ICCs (1) can be interpreted as effect sizes: values of 0.01 are considered small effects, values of 0.10 medium ones, and values of 0.25 large effects (LeBreton and Senter, 2008). All ICCs (1) shown in Table 1 are calculated following the SPSS procedure by LeBreton and Senter (2008). Matched pairs of the first and second respondent are built, and each performance indicator is analyzed separately.

All ICCs (1) shown in Table 1 are above the threshold of 0.25 and can be considered large. Thus, there is sufficient consistency among the different raters—suggesting that common method bias is not a problem. In addition, we controlled for common method bias *ex post*, and performed Harman's (1967) single-factor test following Podsakoff and Organ's (1986). Unrotated factor analysis using the eigenvalue-greater-than-one criterion revealed that the first factor explains only 17 percent of the variance in the data (with a 50% cutoff), indicating that the data are not subject to common method bias.

The operationalization of an *M&A capability* is based on Kale and Singh's (2007) operationalization of alliance capabilities, slightly modified pursuant to the input of several pre-testers. An M&A capability builds on the articulation, codification, sharing, and internalization of knowledge. These four deliberate learning mechanisms are latent variables comprising several indicators (see Appendix S1). We operationalized an M&A capability with a second-order model using a five-point Likert scale representing the level of consensus with each indicator. Following Barreto's (2010) request to operationalize the dimensions of a latent variable as constructs themselves rather

than as observed variables, we operationalized not only the M&A capability construct but the dimensions-related constructs (e.g., articulation of knowledge) as well. The first- and second-order models are both specified as reflective.

The influence of a *dedicated M&A function* can be measured directly by following the measure of Markham, Bonjean, and Corder (1984). A five-point Likert scale is used to measure responses to the question of which organizational unit has which influence during the M&A process, including a “not available” response. The variable representing the dedicated M&A function is measured via the M&A departments at the corporate and business unit levels, and the dedicated M&A resources within other staff functions at the corporate and business unit levels. Since this variable is most likely determined by only one of the four indicators, and as the remaining three indicators may not be available within an organization (a firm with a separate M&A department does not necessarily have additional dedicated M&A resources), the average of the existing units is calculated.

#### Control variables

We included several control variables often used in M&A research. Firm size was assumed to potentially affect M&A capability and was determined by total sales in the prior financial year and the current number of full-time employees. Industry classification was based on the Global Industry Classification Standard (GICS) developed by Morgan Stanley Capital International (MSCI) and Standard & Poor's (S&P) in 1999. We used the proposed 10 sectors and consolidated them into four sectors: energy & utilities, materials, industrials, and consumer staples. In the sample of firms with an M&A function ( $n = 124$ ), the number of respondents for the other industries was too low to evaluate its effects. Financial firms were excluded, as explained above. In

Table 2. Sample characteristics (n = 205)

Industry	%	Number of employees	%	Annual turnover in million €	%	Number of acquisitions	%
Consumer products & services	10	> 5,000	31	> 5,000	14	> 25	5
Consumer staples	9	501–5,000	36	1,000–5,000	22	11–25	10
Energy & power	6	51–500	30	500–1,000	9	6–10	21
Healthcare	5	10–50	3	50–500	37	3–5	27
High technology	10			10–50	15	2	17
Industrials	17			< 10	3	1	20
Materials	8						
Media & entertainment	12						
Retail	9						
Telecommunications	4						
Others	10						

addition, we controlled for the influence of business units, as they may affect M&A performance and M&A capability (Meckl, 2004). This variable is measured by asking for the influence of the business unit head during the M&A process. Moreover, we control for M&A experience, which is measured as a firm's overall sum of recent acquisitions. We compared this sum to the firm's overall M&A activity. Respondents were asked to rate their own acquisition activity by going back in time four years on a five-point Likert scale ranging from *no acquisitions* to *many acquisitions*. Firms can make small as well as big acquisitions (relative to their firm size), either systematically or opportunistically, resulting in three indicators for acquisition activity.

### Methodology

As the research area of an M&A function and M&A capability is relatively new and unexplored and as our sample is relatively small, we selected the variance-based partial least squares (PLS) approach as an appropriate method for this study (Ringle, Wende, and Becker, 2014). The PLS algorithm is more appropriate for obtaining optimal predictions for dependent variables when the theory is relatively new, the structural equation model has not been tested, or new latent variables measures are introduced (Chin and Newsted, 1999). In comparison to other covariance-based approaches such as LISREL and AMOS, the PLS algorithm does not require interval scaling and multi-normal distribution of manifest variables and “involves no assumption about the population or scale of measurement” (Fornell and Bookstein, 1982: 443). Therefore, PLS uses the coefficient of determination  $R^2$  rather than

the  $\chi^2$  test to assess model fit (Hulland, 1999; Kvalseth, 1985). In contrast to  $\chi^2$ ,  $R^2$  is not biased by sample size. Moreover, the PLS allows smaller sample sizes than the covariance-based approaches (Chin, 1998).

### ANALYSES AND RESULTS

We present the descriptive data of our research in Table 2.

We assessed the reliability and validity of the survey scales for each construct (see Appendices S2 and S3). Internal consistency reliability was tested by employing Cronbach's alpha and composite reliability, each with a threshold of 0.7, and average variance extracted (AVE) with a threshold of 0.5 (Cronbach, 1951). Internal consistency reliability was given for each construct when at least two out of the three criteria were fulfilled. This was given for all constructs. The significant loadings of all indicators were above the threshold of 0.4, which ensured indicator reliability (Chin, 1998). Discriminant validity is fulfilled at the construct and indicator level (see Table 3). The diagonal elements provide the square root of the AVE for the corresponding construct. Following Fornell and Larcker (1981), discriminant validity is provided if this statistic is greater than the correlations in the corresponding columns and rows.

Given that the measurement models showed very satisfactory results, the structural model can be estimated by first applying the PLS algorithm and then applying the bootstrapping procedure with 1,000 subsamples to test for statistical significance. The best fit between the data and the model is presented

Table 3. Fornell-Larcker criterion

Construct	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Articulation	0.722													
2. Business unit	-0.030	1.000												
3. Codification	0.669	0.106	0.823											
4. Firm size	0.342	0.041	0.137	0.829										
5. Consumer staples	-0.052	-0.124	-0.218	0.026	1.000									
6. Energy & utilities	-0.027	0.023	0.092	-0.006	-0.066	0.715								
7. Industrials	-0.044	0.071	0.063	0.031	-0.226	-0.077	1.000							
8. Internalization	0.542	0.132	0.546	0.158	-0.143	0.026	-0.019	0.760						
9. M&A function	0.179	0.157	0.215	-0.048	0.115	0.002	0.080	0.313	1.000					
10. M&A capability	0.859	0.076	0.901	0.247	-0.188	0.050	-0.009	0.738	0.267	0.648				
11. M&A experience	0.243	0.043	0.239	0.517	-0.042	-0.018	-0.059	0.135	-0.007	0.266	1.000			
12. M&A performance	0.354	-0.081	0.285	0.131	0.057	-0.114	-0.052	0.280	0.177	0.365	0.233	0.807		
13. Materials	0.096	0.042	0.099	-0.015	-0.130	-0.044	-0.153	0.079	-0.055	0.130	0.034	-0.030	1.000	
14. Sharing	0.583	0.068	0.619	0.188	-0.216	0.065	-0.077	0.607	0.241	0.808	0.237	0.306	0.173	0.747

Figures on the diagonal represent the square root of the average variance extracted (AVE).

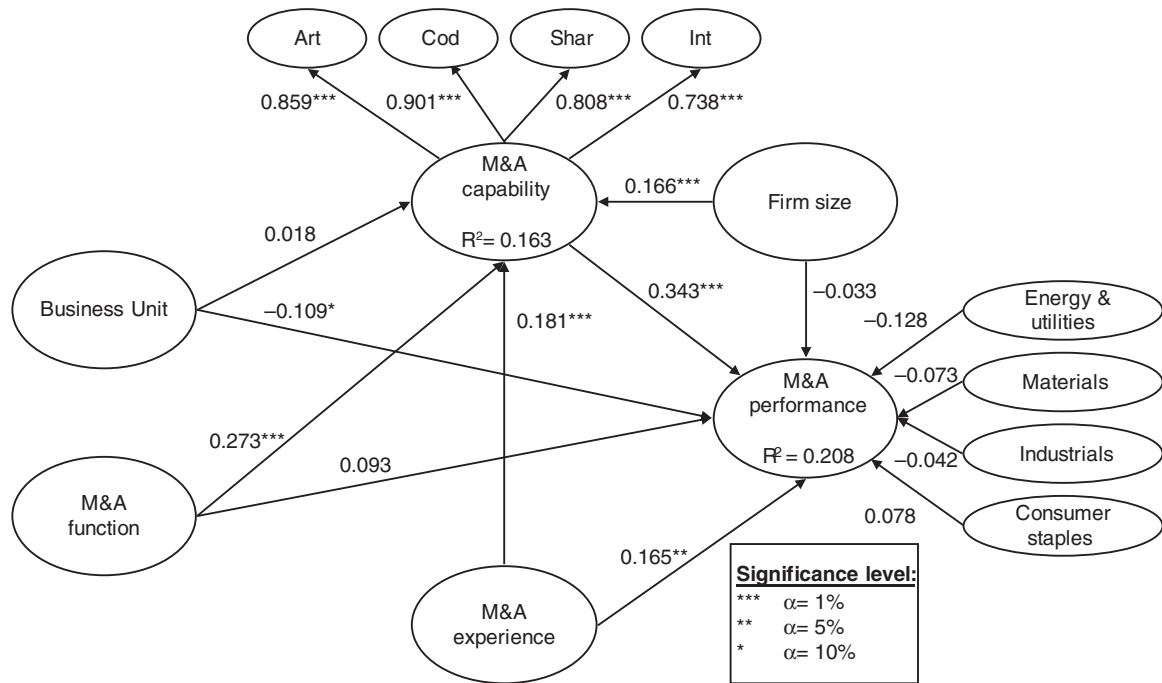


Figure 2. Full model with significance levels

in Figure 2. Following Hulland (1999) as well as Cording, Christmann, and King (2008), there are no overall goodness-of-fit statistics for a PLS model. Instead, the coefficient of determination  $R^2$  is used for evaluation purposes. The model explains 20.8 percent of the variations in M&A performance and 16.3 percent of the M&A capability, which is quite satisfactory compared with similar studies (Kale *et al.*, 2002; Zollo and Singh, 2004). In addition, the predictive relevance of the model was

assessed using the Stone-Geisser test criterion  $Q^2$ , which is above the required threshold of 0 at 0.138 (Chin, 1998; Geisser, 1975).

Considering the direct effects, an M&A function has a significantly positive impact on the development of an M&A capability, thereby providing support for Hypothesis 2. The direct relationship between an M&A function and M&A performance is insignificant (Hypothesis 1). However, analyzing for mediation effects, we find

that this relationship is fully mediated by the M&A capability (Hypothesis 3). A two-step approach is chosen to analyze mediating effects. First, to identify whether a mediation effect exists, Sobel's (1982)  $z$ -test is applied. Second, if a mediation effect exists, one needs to analyze whether it is full or partial (Iacobucci, 2008). Sobel's (1982)  $z$ -test shows that an M&A capability is a mediator in this model, since the calculated  $z$ -value of 3.10314 is above the proposed threshold of 2.567. The mediation effect is significant at the 1 percent level. Since the direct path between M&A function and M&A performance is insignificant, the mediation effect can be characterized as full. Indirect effects have to be considered if there is full mediation. The indirect effect between an M&A function and M&A performance is 0.093 and is significant at the 5 percent level. The indirect effect is calculated by deducting the direct effect (0.093) from the total effect (0.186). Considering the significant indirect effects instead of the insignificant direct ones shows that an M&A function has a positive impact on M&A performance.

The relationship between an M&A capability and M&A performance is positive at a significance level of 1 percent. Further, we find that the positive relationship between an M&A capability and M&A performance is moderated by company size and is significant at the 5 percent level. Moreover, M&A experience has a significantly positive impact on M&A performance and M&A capability. The effect size  $f^2$  of 0.214 and 0.032 indicates a moderate to substantial impact on M&A performance and a weak to moderate impact on the M&A capability, respectively. The analysis for mediating effects shows that an M&A capability partially mediates the relationship between M&A experience and M&A performance. Sobel's (1982)  $z$ -test reveals that an M&A capability is a mediator in this model, as the calculated  $z$ -value of 26.290 is above the proposed threshold of 2.567. The mediation effect can thus be supported with a significance level of 1 percent. Since the indirect path between M&A experience and M&A performance is significant at the 1 percent level, the mediation effect can be characterized as a partial effect. In the case of partial mediation, the total effects have to be considered, instead of the direct ones. Total effects comprise the direct effects between two variables and the indirect effects via one or more additional variables. The total effect between M&A experience and M&A performance is 0.231, which is composed of a direct

effect of 0.165 and an indirect effect of 0.066, and is significant at the 1 percent level. If total effects are considered, the finding that M&A experience positively impacts M&A performance is supported.

## DISCUSSION, CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

Our findings contribute to the emerging stream of research analyzing the relationship between an M&A function, M&A capability, and M&A performance. First, we find that M&A experience has a positive impact on M&A performance, which is in line with extant research (Fowler and Schmidt, 1989; Laamanen and Keil, 2008). Second, in line with Laamanen and Keil (2008) and Kale *et al.* (2002) in the field of alliances, we show that M&A experience has a positive impact on the development of an M&A capability. Moreover, we find that, with the M&A capability acting as mediator, the indirect effect of M&A experience on M&A performance is significant.

Third and in line with prior studies in the field of alliances (Kale and Singh, 2007; Kale *et al.*, 2002), we provide evidence that an M&A function as a new phenomenon has a positive impact on the development of an M&A capability (Hypothesis 2). However, its impact on the improvement of M&A performance (Hypothesis 1) is fully mediated by an M&A capability (Hypothesis 3). Establishing an M&A function implies that all M&A-related knowledge within a firm will be bundled, which will have a positive effect on the development of an M&A capability. An M&A function supports the M&A process by providing professional know-how (Haspeslagh and Jemison, 1991). Thus, firms performing M&A on a regular basis are more likely to build up an M&A function than other firms. Given that an M&A function's impact on M&A performance is fully mediated by an M&A capability, its biggest contribution seems to be its positive impact on the development of an M&A capability.

Fourth, we observe that an M&A capability has a positive impact on M&A performance, which is consistent with the finding of Kale and Singh (2007) in the field of alliances. We show that an M&A learning process helps build up an M&A capability and is positively related to a firm's overall M&A success. Evidently, the development of an M&A capability requires investing time, money, and



managerial resources (Zollo and Singh, 2004). The benefits of such an M&A capability are believed to be high when tasks are infrequent, heterogeneous, and of high causal ambiguity, while frequently performed homogenous tasks of lower causal ambiguity can rely on learning by doing (Haleblian and Finkelstein, 1999; Zollo and Winter, 2002).

Fifth, we contribute to (dynamic) capability research in general by providing a precise operationalization of an M&A capability and by empirically testing its relevance. Our M&A learning process is akin to a higher-order dynamic capability, which is important in the M&A context. This helps shed light on the nature of dynamic capabilities, as requested by Eisenhardt and Martin (2000). In our model, the M&A capability was operationalized with an input-oriented approach by using deliberate learning mechanisms. Thus, one promising area for future research could focus on output-oriented operationalization based on the constituting elements of a (dynamic) capability, such as sensing the environment, learning, coordinating, and adapting (Tece, Pisano, and Shuen, 1997).

An M&A function may be organized in different ways across companies. Since we did not collect detailed data on the structure, functioning, and development of an M&A function, this could be an interesting direction to pursue in case-based and/or ethnographic research.<sup>1</sup> Considering that the M&A function may not remain static, but evolve over time, the analysis of this evolutionary aspect may be important as well. There are, however, some limitations as to how we measured M&A success. In this study, we used managerial assessments on a multidimensional scale with 11 percent of the second respondents of firms. Future work could conceptualize M&A success based on financial or accounting data. Moreover, future studies may analyze the role of business units and their impact on M&A function and M&A performance in greater detail. It may also be worthwhile to analyze the impact of other parties on the development of an M&A capability and on M&A performance. These parties could either be internal (e.g., CEOs) or external (e.g., investment banks, consultants) (Hayward, 2003). Further research could investigate the effects of top corporate managements' influence on the

development of an M&A capability and on M&A performance (Aktas *et al.*, 2009, 2011). Another possibility is learning from private equity firms. These firms can be regarded as serial acquirers that have developed a number of skills and tools they consider as the basis for their superior M&A skills. Such benchmarking could help us understand how the concepts of M&A function, M&A capability, and the M&A learning process can be further developed and implemented. Given that we have analyzed domestic acquisitions, a final avenue for future research may be testing our theory in the context of cross-border acquisitions.

## REFERENCES

- Aktas N, de Bodt E, Roll R. 2009. Learning, hubris and corporate serial acquisitions. *Journal of Corporate Finance* **15**(5): 543–561.
- Aktas N, de Bodt E, Roll R. 2011. Serial acquirer building: an empirical test of the learning, hypothesis. *Journal of Corporate Finance* **17**(1): 18–32.
- Al-Laham A, Schweizer L, Amburgey TL. 2010. Dating before marriage? Analyzing the influence of pre-acquisition experience and target familiarity on acquisition success in the 'M&A as R&D' type of acquisition. *Scandinavian Journal of Management* **26**(1): 25–37.
- Ashkenas RN, DeMonaco LJ, Francis SC. 1998. Making the deal real: how GE capital integrates acquisitions. *Harvard Business Review* **76**(1): 165–178.
- Barkema HG, Schijven M. 2008. How do firms learn to make acquisitions? A review of past research and an agenda for the future. *Journal of Management* **34**(3): 594–634.
- Barreto I. 2010. Dynamic capabilities: a review of past research and an agenda for the future. *Journal of Management* **36**(1): 256–280.
- Bereikoven L, Eckert W, Ellenrieder P. 2004. *Market Research: Methodological Basics and Practical Implications* (10th edn). Gabler: Wiesbaden, Germany.
- Bliese PD. 2000. Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis. In *Multilevel Theory, Research, and Methods in Organizations. Foundations, Extensions, and New Directions*, Klein KJ, Kozlowski SWJ (eds). Jossey-Bass: San Francisco, CA; 349–381.
- Capron L. 1999. The long-term performance of horizontal acquisitions. *Strategic Management Journal* **20**(11): 987–1018.
- Carow K, Heron R, Saxton T. 2005. Do early birds get the returns? An empirical investigation of early-mover advantages in acquisitions. *Strategic Management Journal* **25**(6): 563–585.
- Chatterjee S. 2009. The keys to successful acquisition programs. *Long Range Planning* **42**(1): 137–162.
- Chin WW. 1998. The partial least squares approach to structural equation modeling. In *Modern Methods for*

<sup>1</sup> This latter research idea is based on the presentation of Tomi Laamanen during a PDW "Post-merger integration: Research, practice and teaching" held at the 2014 Academy of Management Annual Meeting in Philadelphia.

- Business Research*. Marcoulides GA (ed.). Lawrence Erlbaum: Mahwah, NJ; 295–336.
- Chin WW, Newsted PR. 1999. Structural equation modeling analysis with small samples using partial least squares. In *Statistical Strategies for Small Sample Research*. Hoyle RH (ed.). Sage: Thousand Oaks, CA; 307–341.
- Cording M, Christmann P, King DR. 2008. Reducing casual ambiguity in acquisition integration: intermediate goals as mediators of integration decisions and acquisition performance. *Academy of Management Journal* **51**(4): 744–767.
- Cornett MM, De S. 1991. Common stock returns in corporate takeover bids: evidence from interstate bank mergers. *Journal of Banking & Finance* **15**(2): 273–295.
- Cronbach LJ. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* **16**(3): 297–334.
- Datta DK, Grant JH. 1990. Relationship between type of acquisition, the autonomy given to the acquired firm, and acquisition success. *Journal of Management* **16**(1): 29–44.
- Eisenhardt K, Martin J. 2000. Dynamic capabilities: what are they? *Strategic Management Journal* **21**(10/11): 1105–1121.
- Fornell C, Bookstein FL. 1982. Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research* **19**(4): 440–453.
- Fornell C, Larcker D. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* **18**(1): 39–50.
- Fowler KL, Schmidt DR. 1989. Determinants of tender offer post-acquisition financial performance. *Strategic Management Journal* **10**(4): 339–350.
- Geisser S. 1975. The predictive sample reuse method with applications. *Journal of the American Statistical Association* **70**(350): 320–328.
- Grant R. 1996. Toward a knowledge-based view of the firm. *Strategic Management Journal* **17**(2): 109–122.
- Haleblian J, Devers CE, McNamara G, Carpenter MA, Davison RB. 2009. Taking stock of what we know about mergers and acquisitions: a review and research agenda. *Journal of Management* **35**(3): 469–502.
- Haleblian J, Finkelstein S. 1999. The influence of organizational acquisition experience on acquisition performance: a behavioral learning perspective. *Administrative Science Quarterly* **44**(1): 29–56.
- Haleblian J, Kim J, Rajagopalan N. 2006. The influence of acquisition experience and performance on acquisition behavior: evidence from the U.S. commercial banking industry. *Academy of Management Journal* **49**(2): 357–370.
- Harman HH. 1967. *Modern Factor Analysis*. University of Chicago Press: Chicago, IL.
- Haspeslagh PC, Jemison DB. 1991. *Managing Acquisitions: Creating Value Through Corporate Renewal*. The Free Press: New York.
- Hayward MLA. 2002. When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal* **23**(1): 21–39.
- Hayward MLA. 2003. Professional influence: the effects of investment banks on clients' acquisition financing and performance. *Strategic Management Journal* **24**(9): 783–801.
- Huber GP. 1991. Organizational learning: the contributing processes and the literatures. *Organization Science* **2**(1): 88–115.
- Hulland J. 1999. Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal* **20**(9): 195–204.
- Iacobucci D. 2008. *Mediation Analysis*. Sage: Los Angeles, CA.
- Javidan M, Pablo A, Singh H, Hitt M, Jemison D. 2004. Where we've been and where we're going. In *Mergers and Acquisitions: Creating Integrative Knowledge*, Pablo A, Javidan M (eds). Blackwell: Oxford, UK; 245–261.
- Kale P, Dyer J, Singh H. 2002. Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strategic Management Journal* **23**(8): 747–768.
- Kale P, Singh H. 2007. Building firm capabilities through learning: the role of the alliance learning process in alliance capability and firm-level alliance success. *Strategic Management Journal* **28**(10): 981–1000.
- King DR, Dalton DR, Daily CM, Covin JG. 2004. Meta-analysis of post-acquisition performance: indications of unidentified moderators. *Strategic Management Journal* **25**(2): 187–200.
- Kvalseth TO. 1985. Cautionary note about  $R^2$ . *The American Statistician* **39**(4): 279–285.
- Laamanen T, Keil T. 2008. Research notes and commentaries. Performance of serial acquirers: toward an acquisition program perspective. *Strategic Management Journal* **29**(6): 663–672.
- Larsson R, Finkelstein S. 1999. Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: a case survey of synergy realization. *Organization Science* **10**(1): 1–26.
- LeBreton JM, Senter JL. 2008. Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods* **11**(4): 815–852.
- Little RJA, Rubin DB. 2002. *Statistical Analysis with Missing Data* (2nd edn). John Wiley & Sons: New York.
- March JG, Sproull LS, Tamuz M. 1991. Learning from samples of one and fewer. *Organization Science* **2**(1): 1–13.
- Markham WT, Bonjean CM, Corder J. 1984. Measuring organizational control: the reliability and validity of the control graph approach. *Human Relations* **37**(4): 263–294.
- Meckl R. 2004. Organising and leading M&A projects. *International Journal of Project Management* **22**(6): 455–462.
- Moeller SN, Schlingemann FP, Stulz RM. 2004. Firm size and the gains from acquisitions. *Journal of Financial Economics* **73**(2): 201–228.
- Moeller SN, Schlingemann FP, Stulz RM. 2005. Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave. *Journal of Finance* **60**(2): 757–782.
- Nonaka I. 1994. A dynamic theory of organizational knowledge creation. *Organization Science* **5**(1): 14–37.

- Podsakoff PM, Organ DW. 1986. Self-reports in organizational research: problems and prospects. *Journal of Management* **12**(4): 531–544.
- Ringle CM, Wende S, Becker JM. 2014. *SmartPLS*. SmartPLS: Hamburg, Germany.
- Schweizer L. 2005. Organizational integration of acquired biotechnology companies into pharmaceutical companies: the need for a hybrid approach. *Academy of Management Journal* **48**(6): 1051–1074.
- Sobel ME. 1982. Asymptotic confidence intervals for indirect effects in structural equation models. In *Sociological Methodology* Leinhardt S (ed.). American Sociological Association: Washington, DC; 290–312
- Teece DJ, Pisano GP, Shuen A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* **18**(7): 509–533.
- Voss I. 2008. *M&A Capability Evolution: The Art of Balancing Standardization and Flexibility*. Cuvillier: Göttingen, Germany.
- Zander U, Kogut B. 1995. Knowledge and the speed of the transfer and imitation of organizational capabilities. *Organization Science* **6**(1): 76–92.
- Zollo M, Singh H. 2004. Deliberate learning in corporate acquisitions: post-acquisition strategies and integration capability in U.S. bank mergers. *Strategic Management Journal* **25**(13): 1233–1256.
- Zollo M, Winter SG. 2002. Deliberate learning and the evolution of dynamic capabilities. *Organization Science* **13**(3): 339–351.

## SUPPORTING INFORMATION

**Additional supporting information may be found in the online version of this article:**

**Appendix S1.** Operationalization of the M&A capability construct.

**Appendix S2.** Evaluation of constructs.

**Appendix S3.** Loadings and cross loadings to evaluate discriminant validity.