Institut für Marktorientierte Unternehmensführung

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Is Speed of Integration really a Success Factor of Mergers and Acquisitions?

An Analysis of the Role of Internal and External Relatedness

Mannheim 2006

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Summary

Previous research on mergers and acquisitions (M&A) has neglected the issue of speed of post merger integration (PMI) by and large. This paper argues that there are benefits and detriments associated with speed of integration. Thus, in some situations speed may be highly beneficial whereas in others it may be harmful to the success of a merger or acquisition. It is argued that the benefits and detriments of speed of integration depend on the magnitude of internal and external relatedness between the merging firms prior to the merger or acquisition. Results from a survey of 232 horizontal mergers and acquisitions show that speed is most beneficial when external relatedness is low and at the same time internal relatedness is high. In contrast, speed is highly detrimental in the case of low internal and high external relatedness.

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1.   Introduction

On a worldwide basis, in the year 2000 firms spent over $3.4 trillions on mergers and acquisitions (Thomson Financial 2001) with the majority of transactions being horizontal M&A (i.e., M&A that take place within one industry, often between direct competitors; Krishnan and Park 2002). However, there is considerable evidence from business practice that many M&A activities remain unsuccessful. Estimated failure rates are typically between 60% and 80% (Marks and Mirvis 2001, p. 80; Tetenbaum 1999, p. 22). Against this background, studying factors that influence the success of M&A is a promising field for academic research.

Prior research on M&A can be organized into four main categories. They include research in economics (e.g., Goldberg 1983; Ravenscraft and Scherer 1987), research in finance (e.g., Jarrell, Brickley, and Netter 1988; Jensen and Ruback 1983; Datta, Pinches, and Narayanan 1992), research with a corporate strategy perspective (e.g., Ansoff et al., 1971; Capron 1999; Chatterjee 1986; Salter and Weinhold 1979; Singh and Montgomery 1987; Singh and Zollo 2004; Walter and Barney 1990), and research based on an organizational theory perspective (Datta 1991; Larsson and Finkelstein 1999; Larsson and Lubatkin 2001; Shrivastava 1986). As there is a growing recognition that "all value creation takes place after the acquisition" (Haspeslagh and Jemison 1991, p. 129), the topic of post merger integration has received increasing research attention in recent years.

However, as our literature review will reveal, prior research on PMI has largely neglected the issue of speed at which integration should take place. As Schweiger and Walsh (1990, p. 72) put it: "Although speed of integration is an intriguing and important issue, no research has specifically examined it." It can be observed, however, that managers typically strive for speed in PMI. Thus, there seems to be an implicit assumption in business practice that M&A success is positively affected by speed. This is also highlighted by the following managerial statement: "There are three things that matter the most here, and they are speed, speed, speed." (Chase 1998, p. 3)

Obviously, there is a gap between the practical relevance of speed in PMI and research-based understanding of this potential success factor. Against this background, our research aims at providing an improved understanding of the role of speed as a success factor for M&A. In this study, we question the simplistic perspective that speed is generally beneficial for M&A

success. More specifically, we argue that there are beneficial and detrimental effects associated with speed of integration and that the total effect of speed on M&A success depends on the level of relatedness of the merging firms. This proposition will be developed theoretically and analyzed empirically in our study.

2.   Literature Review

In this section we first review the literature dealing with speed of integration and then provide an overview of the literature on relatedness.

Literature on speed of integration

A number of management consulting firms have published empirical studies on M&A performance which also consider the role of speed as a potential success factor (Fujitsu Consulting 2001; Mercer Management Consulting 1997; PriceWaterhouseCoopers 2000). On an overall basis, these studies provide some evidence that speed of integration may be positively correlated with M&A success. It is typically argued that a quick implementation of changes is beneficial because it minimizes the amount of uncertainty among members of the combining firms. However, although being based on large samples, these studies do not meet basic requirements on empirical academic research in terms of sampling, construct measurement, and data analysis. Additionally, the issue under which circumstances speed may be more or less beneficial for M&A success is not addressed in these studies.

The limited academic work that addresses speed of integration includes studies by Bragado (1992), Gerpott (1995), Haspeslagh and Jemison (1991), Homburg and Bucerius (2005), Inkpen, Sundaram, and Rockwood (2000), Olie (1994), Ranft and Lord (2002). Inkpen, Sundaram, and Rockwood (2000) conducted a case-based analysis of various acquisitions of six technology-based companies. These authors identified speed of integration as an important driver of successful PMI. On the other hand, Olie (1994) notes, on the basis of several case studies, that a slow integration process can be appropriate to minimize conflicts between the merging partners. In line with that, Ranft and Lord (2002) found (also on the bases of several case studies) that a slow integration can enhance trust building between the merging firms'

employees. These researchers' work is however entirely qualitative in nature and does not provide a statistical analysis of the relationship between speed of integration and success.

Gerpott (1995) conducted a large scale empirical study focusing on the integration of R&D functions among merging manufacturing firms. He found that centralization of R&D in the PMI phase and speed of integration have a joint positive impact (i.e., an interaction effect) on M&A success. Also, based on several case studies, Haspeslagh and Jemison (1991) argue that the type of acquisition integration approach (including speed of integration) depends on the joint influence of the need for strategic interdependence and the need of organizational autonomy of the involved firms. Bragado (1992) provides an extensive discussion of the "correct speed for PMI". He argues that under certain conditions a slow approach to PMI may be superior to a fast approach. His key argument is that a period of studying and understanding between the employees of the two companies is often needed. This author further argues that the appropriate speed of integration depends on the "fit" (p. 27) of the involved firms, especially on their cultural fit. The work by Haspeslagh and Jemison (1991) and Bragado (1992) is relevant for our study because these authors mention the key proposition of our work that the effect of integration speed on M&A success depends on the level of relatedness. However, these authors do not study this proposition based on specific hypotheses and large-scale empirical evidence.

A study by Homburg and Bucerius (2005) explicitly addresses the issue of speed of postmerger integration based on a large empirical study. Results show a weak positive effect between speed of integration and market-related performance after the merger or acquisition. Based on their findings these authors call for more research related to the role of time in mergers and acquisitions.

In summary, we find that research on performance implications of speed of integration is very limited. More specifically we are not aware of any empirical academic study on M&A performance where speed of integration is considered in depth.

Literature on relatedness

While academic research on speed of integration is scarce, the role of relatedness has attracted some attention in M&A research (e.g., Lubatkin 1987; Chatterjee 1986; Seth 1990).

Relatedness refers to aspects outside the two organizations (external relatedness) as well as to aspects inside the two organizations (internal relatedness).

Research related to the first category (external relatedness) has focused on relatedness of the involved firms concerning target markets and the firms' market positioning in terms of product quality and price. Concerning the first facet, Capron and Hulland (1999) and Capron, Mitchell and Swaminathan (2001) provide evidence that a high level of external relatedness with respect to target markets is associated with a high potential for synergy realization. On the other hand, a study by Shelton (1988) reveals that a significant synergy potential can also exist in the case of low external relatedness with respect to target markets.

Research looking at the second facet (i.e., external relatedness with respect to the merging firms' market positioning) has also yielded conflicting findings. While a study by Hagedorn and Duysters (2002) finds beneficial effects of the merging firms' similarity with respect to product technologies, other authors (Barney 1986; Salter and Weinhold 1979; Harrison et al. 1991) provide theoretical arguments that, in the case of a low level of relatedness with respect to market positioning, the involved firms can benefit from each other and also exploit synergies.

Research with respect to the second category (internal relatedness) has focused on the merging firms' management styles (typically considered as a specific facet of organizational culture; Chatterjee et al. 1992; Datta 1991; Datta, Grant, and Rajagopalan 1991), pre merger performance (Hambrick and Cannella 1993; Ranft and Lord 2000), and strategic orientation (Cartwright and Cooper 1992; Jemison and Sitkin 1986; Ramaswamy 1997; Salter and Weinhold 1981). On an overall basis, empirical and conceptual work in this area provides strong evidence that low internal relatedness is detrimental for M&A success. Phenomena associated with low internal relatedness include among others employee resistance (Larsson and Finkelstein 1999), internal turbulence (Ranft and Lord 2000), and reduced employee retention (Hambrick and Cannella 1993).

In summary, we find that a significant body of research has addressed the concept of (external or internal) relatedness in M&A. With respect to the findings of previous research, it is worth noting that low internal relatedness is frequently reported to have detrimental effects on M&A performance. On the other hand, there are more conflicting findings with respect to the impact of external relatedness on M&A performance.

It is worth emphasizing though that our work adopts a different perspective compared to previous research. More specifically, previous studies have typically analyzed the effect of relatedness on M&A performance. In our study, relatedness is a moderator variable rather than an antecedent of performance. In other words, previous research has studied how relatedness itself affects M&A performance while we analyze how relatedness affects how integration should be carried out (in terms of speed). This issue has not been studied in previous research.

3.   Theory and Hypothesis Developement

We define speed of integration as the shortness of the time period needed to complete the intended integration of systems, structures, activities, and processes of the two companies. In our study, we focus on speed of integration in marketing and sales. As an example, typical decisions after a merger or acquisition relate to the speed at which differences between the two firms concerning their marketing/sales information systems, sales force structures, and product/brand portfolios should be consolidated. This specific focus of the construct was chosen because, in our theoretical reasoning, we will argue that there is a trade-off between beneficial and detrimental consequences of integration speed. More specifically, we will argue that the dominant beneficial effect of a high speed of integration is to avoid or reduce uncertainty among customers. This argument can probably not be made with respect to the integration of other functions which are essentially not visible to the customer.

There is ample evidence both in academic literature and in business practice that M&A success can be significantly reduced through negative customer reactions (e.g., Morall 1996; Urban and Pratt 2000). A merger or acquisition creates a lot of uncertainty among customers of the merging firms. This uncertainty relates for example to prices, quality of products and services, contact persons, and attention devoted to different customer or market segments. Dissatisfaction, restraint, and defection, which are harmful to M&A success, are likely consequences of uncertainty among customers (Bekier and Shelton 2002; Chakrabarti 1990; Reichheld and Henske 1991).

We argue that the major beneficial effect of integration speed on M&A success is uncertainty reduction for customers. If PMI decisions which are relevant for customers are made and

implemented quickly, customers will know what to expect from the merged company in terms of product offer, pricing policy, sales strategy, contact persons, etc. Thus, customer uncertainty is reduced through a high level of PMI speed. Additionally, there is ample evidence from business practice that customer uncertainty after a merger or acquisition is even increased by rumors in the market related to changes planned by the merged company (e.g., Reichheld and Henske 1991). In case of high PMI speed, there is not much time for rumors to spread in the market which also leads to reduced customer uncertainty. Finally, it is common in business practice that competitors of merging firms try to increase uncertainty among the merging firms' customers in order to promote customer switching (Clemente and Greenspan 1997). This potential source of customer uncertainty can also be dried out by a high level of PMI speed. In summary, we find a lot of mechanisms through which speed of integration can be beneficial in terms of reducing customer uncertainty.

A key element of our reasoning is the contention that the magnitude of these beneficial effects of integration speed depends on the level of external relatedness. As mentioned in our literature review, external relatedness refers to the merging firms' target markets and their market positioning. As an example, a low level of external relatedness is present if a firm positioned in the premium segment acquires another company which is focused on the low price segment. Obviously, the range of possible implications from the merger or acquisition for a customer is broader in case of low external relatedness compared to a high level of relatedness. Potential changes due to a low level of relatedness for example include repositionings with respect to the merging firms' product and service offer (e.g., a reduction of brands, product variants, and/or services), sales structure (e.g., reduction of sales offices and/or distribution channels), and customer service (e.g., relocation or closure of branches and/or subsidiaries). Additionally, a low level of relatedness often leads to a reassessment of the joint customer portfolio which can result in conscious decisions not to serve some customers/segments any more. As an example, a typical activity is the elimination of unprofitable customers/segments during PMI (Clemente and Greenspan 1997).

Therefore, all other things being equal, the level of customer uncertainty will be higher when external relatedness is low. Against this background we argue that the beneficial effect of speed (i.e., uncertainty reduction) is particularly strong in the case of a low level of external relatedness.

Our reasoning so far has focused on external (i.e., market-related) issues. With respect to internal problems, which arise in the context of M&A activities, previous literature identifies internal turbulence as a key factor (Buono and Bowditch 1989). This phenomenon on the one hand relates to problems within each of the merging firms such as job dissatisfaction, lowered trust in the organization, and increased intentions to leave the organization (Cartwright and Cooper 1993; Nikandrou, Papalexandis, and Bourantas 2000; Meeks 1977; Schweiger and DeNisi 1991; Schweiger, Ivancevich, and Power 1987). On the other hand, internal turbulence relates to inter-firm problems such as interorganizational competition, conflicts between members of the organizations, holding back of information, and coalition building (Buono, Bowditch, and Lewis 1985; Leroy and Ramanantsoa 1997; Ramaswamy 1997). Both intra- and inter-firm problems are found to be harmful for the performance of a merger or acquisition.

We argue that a key detrimental effect of integration speed on M&A success is that it increases internal turbulence (Olie 1994; Ranft and Lord 2002). Our key argument with respect to this detrimental internal effect of integration speed is that it will be stronger in the case of low internal relatedness (which, as discussed previously, relates to such phenomena as strategy, culture, and pre merger performance). In justifying this argument, we draw upon social identity theory which is rooted in the similarity-attraction paradigm (Byrne 1971; Berscheid and Walster 1978). This paradigm refers to similarity at the individual level. Similarity is conceptualized as the degree to which group members are alike in terms of personal attributes or other characteristics. The basic proposition of this paradigm is that interpersonal similarity affects interpersonal attraction and, as a consequence, social integration between individuals (Baron and Pfeffer 1984). In other words, people seek membership in groups whose members have similar characteristics (Byrne, Clore, and Worchel 1986). Group formation between members with similar characteristics is assumed to lead to cooperation, performance, and satisfaction.

The process through which this integration between individuals is achieved is specified in social identity theory, which is a theory of intergroup relations. This theory describes the search of individuals for social identity (Tajfel 1982; Tajfel and Turner 1986).

In line with research by Ashforth and Mael (1989), Haslam (2001), Hogg and Terry (2000), and van Knippenberg et al. (2002), we apply social identity theory to an interorganizational

context. More specifically, we argue that the two merging firms each represent a social group of individuals with each group striving for social identity. M&A alter the social categorization process by imposing new group membership to the employees of the merging firms. This can raise concerns about social identification. Employees compare the newly emerging group to the one they belonged to prior to the merger or acquisition. If the new group seems similar enough to the previous group then employees are likely to abandon their old social identities and accept the new one quite easily. But if the new group seems highly dissimilar, employees may prefer to stay in their old social identity so that a new group will not easily emerge (van Knippenberg et al., 2002; van Knippenberg and van Leeuwen 2003). Employees would feel more committed to their old groups than they do to the new one. Additionally, they might develop ingroup/outgroup biases, favoring members who belonged to their own group before the merger occurred (Elsass and Veiga 1994; Haunschild, Moreland, and Murrell 1994; Nahavandi and Malekzadeh 1988; Shanley and Correa 1992). Haunschild, Moreland, and Murrell (1994, p. 1153) state, that "Mergers involving more cohesive groups should thus be more problematic, because group members will be reluctant to abandon their old social identities." In that case, a longer period of mutual studying, understanding, and trust building between the merging firms is needed to get to know the other company and to prepare members of both firms for the changes to come (Olie 1994; Ranft and Lord 2002; Schweiger and Goulet 2000). In such a situation speed of integration will be highly detrimental since it is likely to foster internal conflicts and turbulence. In summary, social identity theory leads us to the conclusion that the detrimental effects of speed are stronger in the case of low as opposed to high internal relatedness.

On an overall basis, our theoretical reasoning suggests that the beneficial effects of speed of integration are strong in the case of low external relatedness and weak in the case of high external relatedness. On the other hand, the detrimental effects of speed of integration are high in the case of low internal relatedness and weak in the case of high internal relatedness. Combining these two statements leads to four different situations as shown in Figure 1.
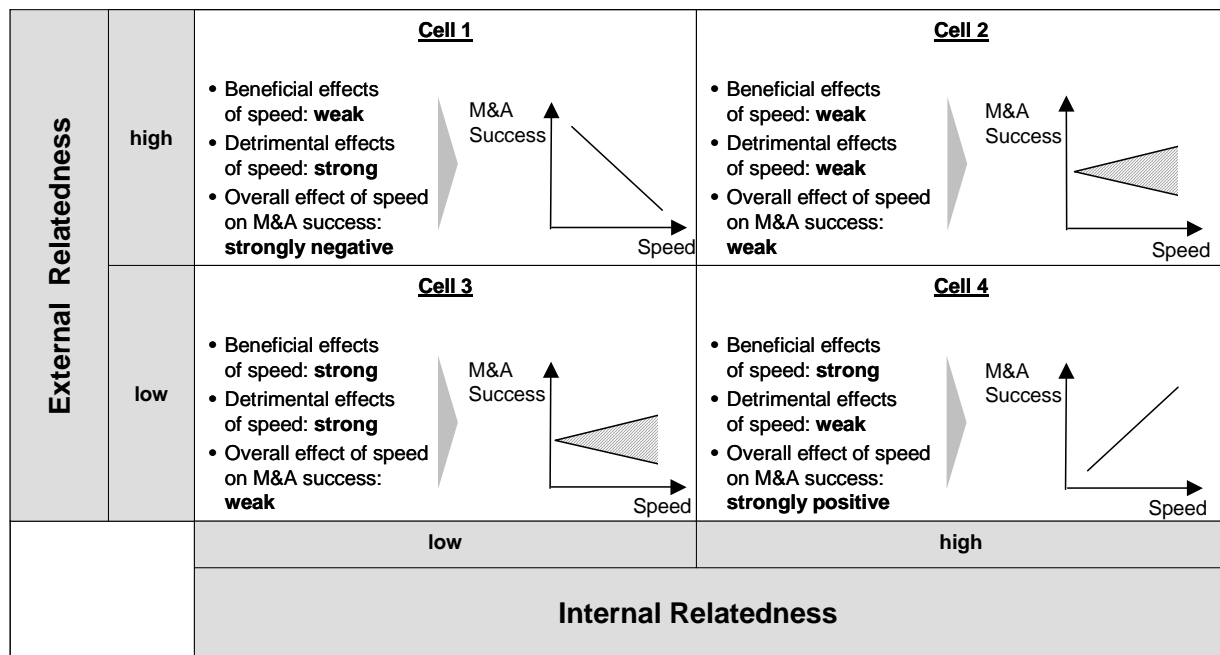
Figure 1: Illustration of Theoretical Reasoning

As a consequence of our theoretical reasoning, the relationship between integration speed and M&A success will be different in the four cells of the matrix in Figure 1. As an example, beneficial effects of speed are strong and detrimental effects of speed are weak in cell 4. Therefore the relationship between speed of integration and M&A success is expected to be strongly positive in this context (low external but high internal relatedness) because an increase in speed of integration would produce stronger beneficial than detrimental effects.

With a similar reasoning, we conclude that in the case of low internal but high external relatedness (cell 1 in Figure 1) the relationship between speed of integration and M&A success will be strongly negative because an increase in speed of integration would produce stronger detrimental than beneficial effects in this context.

Concerning the two remaining cells 2 and 3 in Figure 1 where external and internal relatedness are either both high or both low, we expect a weaker relationship between speed of integration and M&A success compared to cells 1 and 4. In these contexts, beneficial and detrimental effects of integration speed are either both high or both low so that they will largely compensate each other. As a consequence, the resulting relationship between integration speed and M&A success will be neither strongly positive nor strongly negative. This reasoning leads us to the following hypothesis:

H_1: The effect of speed of integration on M&A success depends on the joint influence of the merging firms' external and internal relatedness in the following way:

(a) Speed of integration is most beneficial in terms of M&A success in the case of low external and high internal relatedness of the merging firms. In this context, speed of integration will exhibit a strong positive effect on M&A success.

(b) Speed of integration is least beneficial in terms of M&A success in the case of low internal and high external relatedness of the merging firms. In this context, speed of integration will exhibit a strong negative effect on M&A success.

(c) In the cases of

(c1) high external and internal relatedness and of

(c2) low external and internal relatedness

of the merging firms the effect of integration speed on M&A success will be weaker than in the situation described under (a) and (b).

Our reasoning leading to H_1 was built upon differential (i.e., beneficial external vs. detrimental internal) effects of integration speed. However, one might also argue for an uncertainty avoiding (i.e., beneficial) internal effect of speed. If integration is carried out quickly, employees know what to expect in terms of, e.g., employee layoffs, changes in management, and closure of locations. Thus, one might argue that employee uncertainty can be reduced through a high level of PMI speed.

- The magnitude of such a beneficial internal effect of integration speed would, again, depend on the level of internal relatedness. Since the range of possible implications from the merger or acquisition for an employee of either company is broader in the case of low internal relatedness compared to a high level of relatedness, employee uncertainty will be low in the case of high relatedness and high in the case of low relatedness. This reasoning is consistent with our theoretical argument concerning the effect of external relatedness on customer uncertainty.

Thus, both internal effects (i.e., the negative effect of enhancing internal turbulence and the positive effect of avoiding uncertainty) become weaker when we move from the left to the right part of Figure 1 (i.e., as we move from low to high internal relatedness). With respect to

the overall effect of speed on M&A performance, the key question then is which of the two internal effects is stronger. If the turbulence creating (detrimental) effect of speed dominates, the overall effect remains as hypothesized in H1. If, on the other hand, the beneficial internal effect is as strong as or even stronger than the detrimental effect, the beneficial external effect of speed is not weakened (or is even strengthened) through the internal effects of speed. In this case the overall effect of speed on M&A performance will be positive in each of the four cells of Figure 1. This reasoning leads us to the following alternative hypothesis.

H1alt: Speed of integration has a positive effect on M&A performance in all four situations under consideration.[1]

It is worth emphasizing that our theoretical reasoning leading to H_1 is based on the premise that the detrimental internal effect of speed (i.e., increasing internal turbulence) is stronger than a possible beneficial effect (i.e., avoiding uncertainty). This premise is based on previous M&A literature which emphasizes the significance of internal turbulence created through fast post merger integration (e.g., Olie 1994; Ranft and Lord 2002). Also, the negative internal effect is solidly grounded in social identity theory. Thus, hypothesis H_1 is the key result of our theoretical reasoning while H_{1alt} is merely an alternative considered in order to provide a more complete theoretical treatment of the relationship under consideration.

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[1] It is worth noting that also with respect to H_{1alt}, the effect between speed of integration and M&A performance will be different in the four situations under consideration. More specifically, the positive effect would be strongest in the case of low external and low internal relatedness and weakest in the case of high external and high internal relatedness. However, since this hypothesis is just an alternative to our main theoretical argument we did not further differentiate the four situations in the wording of H_{1alt}.

4. Methodology

Sample and Data Collection Procedure

A survey methodology was used to collect detailed primary data pertaining to PMI on a large scale basis. Data collection took place in 2002. The initial sample consisted of horizontal M&A that took place between companies based in Central Europe during the 1996-1999 period. This period was chosen to exclude recent M&A in which the integration process was still in an early stage and did not yet lead to any significant outcomes at the time of the survey, as well as older transactions for which it is difficult to obtain detailed information about integration activities due to managerial turnover.

M&A were identified from several sources including the Mergers & Acquisitions Database of the University of St. Gallen in Switzerland and several M&A-related European business magazines. We initially identified 3360 reported horizontal M&A. Via telephone calls those M&A were excluded where the two firms` activities remained totally independent from each other (purely financial transactions). In the same telephone call, names of a senior executive with responsibility for the PMI in the acquiring company were identified. Managers from the acquiring firm were chosen, as they tend to be the most knowledgeable about the PMI (Walsh 1988). Additionally, due to managerial turnover it is often impossible to identify former executives from the target. Based on these efforts, managers responsible for PMI of a total sample of 1483 M&A were obtained. 1483 questionnaires were sent to these managers. We made follow-up telephone calls starting two weeks later to verify the contact name and to encourage response.

On the basis of the telephone calls and undeliverable mail, we determined that 181 firms were inappropriate for the study. A total of 232 usable questionnaires was returned, resulting in a response rate of 17.8%. Given the length of our survey and the high-level managers targeted, we believe that our response rate is in line with other researchers studying complex M&A phenomena (e.g., Capron, Dussage, and Mitchell 1998).

Nonresponse bias was assessed by comparing early versus late respondents (Armstrong and Overton 1977). The rationale is that late respondents are more similar to non-respondents than are early respondents. The data set was divided into thirds according to the number of days from initial mailing until receipt of the returned questionnaire. T-tests between the first and

last thirds indicated no statistically significant differences ($p < .05$) in the mean responses for all the included variables (i.e., speed of integration, the five facets of relatedness, the two control variables, and success). This finding provides reasonable evidence that non-response bias is not a problem in this data set.

Additionally, we compared the industry distribution and the transaction year of the targeted and the obtained sample. $\chi2$ difference tests revealed no significant differences with respect to industry distribution and transaction year in the targeted set of firms compared to the obtained sample.

Respondent and M&A characteristics are presented in Table 1. These data show that we achieved a large proportion of senior managers whom we consider to be the appropriate respondents for the issues covered in the survey.

A: Industry	%		C: Position of Respondents	%
Banks and insurances	38%		Managing Director, CEO, head of SBU	67%
Machinery	23%		VP with responsibility for different functions (e.g., sales)	18%
Food and packaged goods	11%		Others (e.g., head of M&A)	13%
Chemicals	8%		Missing	2%
Printing and Publishing	6%			
Automotive components	5%		**D: Relative Size of Target to Acquirer**	**%**
Pharmaceuticals	3%		**(annual turnover)**	
Others	4%		< 25%	38%
Missing	2%		25-49%	23%
			50-74%	13%
B: Combined Firm Size (annual turnover	**%**		75-100%	10%
of the consolidated business)			> 100%	14%
< \$25 million	23%		Missing	2%
\$25-\$49 million	13%			
\$50-\$99 million	15%			
\$100-\$249 million	7%			
\$250-\$499 million	11%			
\$500-\$1,000 million	14%			
>\$1,000 million	16%			
Missing	1%			

Table 1: Sample Composition (232 cases)

Measure Development and Assessment

Scales for the study consisted of newly generated items and of items that had been previously utilized. Where a new scale was developed, we were guided by the results from 10 field interviews with practitioners prior to the survey and by construct definitions and existing scales utilized in previous research. A complete list of items is shown in the Appendix.

Speed of integration, the independent variable in our study, has been defined as the shortness of the time period needed to complete the intended integration. The construct was measured using eight items which asked the respondents to assess the speed at which such things as

product and service offer, branding strategy, prices, advertising activities, sales channels, organizational structures in the field sales force, etc. were made similar during the integration process. The specific items were partly based on items used by Datta (1991).[2]

The dependent variable in our study is M&A success. Consistent with the existing literature we define M&A success as the merging firms` return on sales after the merger or acquisition compared to the merging firms` situation prior to the merger or acquisition (Datta 1991; Hunt 1990). This before/after comparison is typically used as an indicator of the M&A success or failure (e.g., Capron and Hulland 1999). The specific item used in our study was adapted from previous M&A research (e.g., Datta 1991; Capron 1999).

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[2] It is worth mentioning that we further elaborated on the issue of endogeneity of speed of integration. More specifically, we tested for a potential mediating effect of speed between the independent variables (i.e., the different relatedness constructs and the control variables) and success. We used causal modelling by means of LISREL since this technique allows for the analysis of direct and indirect effects within a single model. We first analyzed an overall model containing all the relatedness facets and all the control variables as independent variables. A first observation is that, based on the overall sample, speed does not have a significant impact on success. This observation is consistent with the corresponding result from the analysis of the baseline model reported in the result section of the paper. Moreover, we observe that there is only one marginally significant effect of the independent variables (relatedness of target markets) on speed. Also, only one of the independent variables (relatedness of management style) has a significant effect on success. Thus, on the basis of the overall sample there is clearly no support for a mediating role of speed between relatedness facets/control variables and success. However, this type of analysis is even more interesting when restricted to those cells of the matrix where we predict a strong (either negative or positive) effect of speed on success (i.e., the cells 1 and 4 of the matrix in Figure 1. Therefore we conducted the same type of analysis separately in cells 1 and 4. As sample size in this case becomes too small to analyze the full model shown above, we conducted separate analyses for each of the independent variables. For each of the six matrices shown in Figure 2 we thus analyzed seven models in each of the cells (corresponding to the seven independent variables: five facets of relatedness and two control variables). Therefore we analyzed a total of 84 models. We observed a very clear and consistent pattern here. In the case of cell 1 speed had a consistently significant negative effect on performance in every case while the other effects in the model were largely insignificant. With respect to cell 4 we observed a similar consistency of the effects. In cell 4 speed had a consistently significant positive effect on performance in every case while the other effects under consideration were largely insignificant.

With respect to external relatedness, we used the distinction between two facets which has been identified in our literature review. These two facets refer to external relatedness related to the merging firms' target markets and to their market positioning respectively.

External relatedness with respect to target markets captures the extent to which the merging firms' geographical markets and customers are similar. It was measured by three items also used by Capron and Hulland (1999). External relatedness with respect to market positioning refers to the extent to which the merging firms offers are similar in terms of customer needs which they satisfy, quality, price positioning etc. The construct was measured with five items which are based on previous research (Achrol 1992).

In our literature review, we also identified different facets of internal relatedness. Against this background, our study focuses on the two firms' relatedness with respect to strategic orientation, management style (a component of organizational culture), and performance. Constructs were measured separately for acquiring and target firms. Based on these evaluations, a measure of relatedness was computed for each construct as the average absolute value of the differences between the two firms' scores on the individual items. This procedure is consistent with previous research (Harrison et al., 1991).

The relevance of the relatedness/heterogeneity of the merging firms in terms of strategic orientation has been emphasized in previous M&A research (Ramaswamy 1997). In this context, we draw upon Porter's (1980) classical distinction between cost-oriented and differentiation-oriented strategies. Following Treacy and Wiersema (1993), we distinguish two basic approaches to a differentiation strategy which these authors refer to as "product leadership" and "customer intimacy", respectively. While product leadership refers to achieving differentiation through highly innovative and superior products, customer intimacy describes a differentiation strategy through customized products/services and intensive customer service. Based on this conceptualization we measure three strategic orientations in our study referred to as cost-orientation, product-orientation, and customer intimacy. Items for measuring these orientations are based on previous work by e.g., Dess and Davis (1984), Nayyar (1993), and Treacy and Wiersema (1993, 1995).

As our literature review revealed, relatedness of the merging firms' management styles were identified as highly relevant in the context of M&A research (e.g., Datta 1991; Larsson and Finkelstein 1999). Management styles were assessed using seven items, the selection of which

was guided by a very comprehensive measure previously used in M&A-related research (Datta 1991) and by previous research in the management literature (Khandwalla 1977). The items used in our study describe management styles in terms of such dimensions as centralized/decentralized, short-term-oriented/long-term-oriented, proactive/reactive etc.

Finally, internal relatedness with respect to performance is measured by means of two items related to the merging firms' return on sales and market share. The specific items were adapted from previous M&A research (e.g., Capron 1999; Datta 1991).

In testing our hypothesis we will control for extent of integration (Dranove and Shanley 1995; Singh and Zollo 2004) and combined size (Capron and Hulland 1999) of the two merging firms. Since these two constructs may be correlated with both speed of integration and M&A success, we feel that it is important to study whether integration speed has the predicted effect on M&A success after accounting for the variance explained by extent of integration and combined firm size. Extent of integration was measured with eight items covering the same facets of marketing and sales integration as the items used for measuring speed of integration. Combined firm size was measured with a single item related to the two firms´ joint turnover.

Correlations among constructs are presented in Table 2. Since we will use moderated regression analyses, Table 2 also includes the interaction terms between our suggested moderators (i.e., the different facets of relatedness) and integration speed.

Constructs/Interaction Terms	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Speed of Integration	1.00													
2. M&A Success	.026	1.00												
3. Extent of Integration	.273***	-.105	1.00											
4. Combined Firm Size	-.169**	-.026	-.391***	1.00										
5. Relatedness with Respect to Target Markets	-.271***	-.065	.387***	-.143*	1.00									
6. Relatedness with Respect to Market Positioning	.261***	-.044	.484***	.213**	.326***	1.00								
7. Relatedness with Respect to strategic Orientation	.034	-.055	-.205	.069	.074	.322***	1.00							
8. Relatedness with Respect to Management Styles	.019	-.170	-.031	.041	-.071	.186**	.391***	1.00						
9. Relatedness with Respect to Performance	.016	-.076	-.097	.120*	.006	.181**	.424***	.349***	1.00					
10. Relatedness with Respect to Target Markets x Speed of Integration	-.016	-.139*	.065	-.067	.083	-.071	.114	.031	.006	1.00				
11. Relatedness with Respect to Market Positioning x Speed of Integration	-.081	-.198**	.009	.065	-.076	-.041	-.026	.059	-.079	.312	1.00			
12. Relatedness with Respect to Strategic Orientation x Speed of Integration	-.026	.202**	-.046	-.148*	.128	.053	.010	.128*	.164**	-.197**	-.310***	1.00		
13. Relatedness with Respect to Management Style x Speed of Integration	-.102	.167**	-.127	.037	.113	-.026	.203**	.010	.218**	-.023	-.038	.388***	1.00	
14. Relatedness with Respect to Performance x Speed of Integration	-.002	.159**	.021	-.074	.007	-.084	.251***	.191**	.151*	.042	-.072	.362***	.221**	1.00

*p < .10; **p < .05; ***p < .01

Table 2: Correlation Matrix

For measurement assessment, we used the conventional criterion coefficient alpha (Nunnally 1967) as well as more advanced criteria based on confirmatory factor analysis (Jöreskog 1966, 1969). We analyzed psychometric properties of our scales for each factor individually.

The corresponding results are shown in the Appendix. Overall, the results indicate acceptable psychometric properties for all constructs. Coefficient alpha values are above .7 and thus exceed the threshold value of .6 recommended by Nunnally (1967). Hence, alpha values suggest a reasonable degree of internal consistency between the corresponding indicators. Additionally, the average variances extracted and composite reliabilities are above the recommended threshold values of .5 and .6, respectively (Bagozzi and Yi 1988). Also all individual item reliabilities are above the required value of .4 (Bagozzi and Baumgartner 1994).

5.   Results

As a first step, we analyzed a baseline regression model (with success as the dependent variable) which includes as independent variables speed, the five relatedness constructs, and the control variables.[3] The corresponding results are shown in Table 3. Interestingly, the regression coefficient for speed of integration was insignificant ($\beta = .024$ p > .1). Thus, on the basis of the overall sample, speed does not have a direct effect on performance.

In the following, we analyzed for each of the five relatedness constructs their interaction with speed in influencing success. Thus, we analyzed five regression models (with success as dependent variable) having as independent variables speed of integration, a specific relatedness construct, the interaction term between speed and this relatedness construct, and the control variables (extent of integration and size). The corresponding results are also shown in Table 3.

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[3] The following regression analyses are all based on mean centered variables as suggested by Aiken and West (1991).

Constructs/Interaction Terms	Baseline Model	Model 1	Model 2	Model 3	Model 4	Model 5
Speed of Integration	.024	.077	.055	.089	.074	.108
Relatedness with Respect to Target Markets	-.198**	-.277***	-.205**	-.195**	-.233**	-.216**
Relatedness with Respect to Market Positioning	-.205**	-.211**	-.214**	-.207**	-.189**	-.193*
Relatedness with Respect to Strategic Orientation	.169*	.184*	.176*	.209**	.196**	.187*
Relatedness with Respect to Management Style	.142*	.203**	.168*	.243**	.282***	.217**
Relatedness with Respect to Performance	.127	.182*	.159*	.187*	.162*	.224**
Extent of Integration	.106	.004	.076	.017	.045	.006
Combined Firm Size	-.065	.016	.036	.038	.049	.043
Relatedness with Respect to Target Markets x Speed of Integration		-.305***				
Relatedness with Respect to Market Positioning x Speed of Integration			-.253***			
Relatedness with Respect to Strategic Orientation x Speed of Integration				.256***		
Relatedness with Respect to Management Style x Speed of Integration					.297***	

r^2	.11	.187	.134	.145	.168	.159
Comparison with corresponding Baseline Model (F-Statistics)		8.58***	4.72***	6.94***	6.73***	5.26***

Standardized regression coefficients (beta coefficients) are shown

*p < .10; **p < .05; ***p < .01

Table 3: Results of Moderated Regression Analysis

As can be seen there, the two constructs capturing external relatedness exhibit negative interaction effects with speed whereas the three internal relatedness constructs interact positively with speed of integration. This provides a first support for our theoretical reasoning. It is worth mentioning that the predicted moderator effects of relatedness occur in a model where relatedness itself is also included as a predictor of success (as suggested by Irwin and McClelland 2001).

Table 3 also reports the results of multiple partial F-tests (Cohen et al. 2003) comparing the explanatory power of each of theses models with the baseline model. In each case the model including an interaction term provides a significant improvement compared to the baseline model in terms of explanatory power.[4]

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[4] Following these analyses, we proceeded to the study of the moderator variables in combination. Since our analysis captures two aspects of external and three aspects of internal relatedness, we analyzed six regression models. Each of these corresponds to the combination of a specific facet of external relatedness with a specific facet of internal relatedness. Besides the independent variables in the baseline model, each of these models contains the two two-way interaction terms (between speed and each of the two relatedness dimensions) as well as a three-way interaction (between speed and the two relatedness facets). We observed in each of the six cases that the three-way interaction effect was significant at least on the .05 level. Moreover, multiple partial F-tests revealed that inclusion of the three-way interaction term lead to a significant increase of the explanatory power of the model.

In the next step we proceeded to the explicit test of our hypothesis. Since our analysis captures two aspects of external and three aspects of internal relatedness, we test our hypothesis for six different settings with respect to internal and external relatedness. These six settings emerge from combining each dimension of internal relatedness with each of the dimensions of external relatedness. For each of the relatedness dimensions we conducted a median split which allows for a high/low distinction. This procedure leads to four cells related to different levels of external/internal relatedness as shown in Figure 1. For each of these cells we analyzed a multiple regression model explaining M&A success through speed of integration and the two control variables. The corresponding results are shown in Figure 2.

Relatedness of Target Markets		Strategic Orientation		Management Style		Performance	
	high	**Cell 1** -.399** n=51 r²=.18	**Cell 2** 1.: -.062 n=53 r²=.13	**Cell 1** -.382** n=52 r²=.12	**Cell 2** -.206 n=49 r²=.09	**Cell 1** -.343** n=52 r²=.11	**Cell 2** -.223* n=50 r²=.07
	low	**Cell 3** .265** n=47 r²=.15	**Cell 4** 543*** n=55 r²=.16	**Cell 3** .289* n=49 r²=.13	**Cell 4** .364** n=54 r²=.12	**Cell 3** .306* n=58 r²=.09	**Cell 4** .366** n=48 r²=.16
		low	high	low	high	low	high
		Strategic Orientation		Management Style		Performance	
		Internal Relatedness					

Relatedness of Market Positioning		Strategic Orientation		Management Style		Performance	
	high	**Cell 1** -.439** n=46 r²=.21	**Cell 2** .046 n=60 r²=.05	**Cell 1** -.402** n=47 r²=.20	**Cell 2** -.112 n=55 r²=.06	**Cell 1** -.318** n=50 r²=.12	**Cell 2** -.197 n=53 r²=.10
	low	**Cell 3** .221* n=58 r²=.06	**Cell 4** 501*** n=48 r²=.19	**Cell 3** .244* n=60 r²=.07	**Cell 4** .498*** n=48 r²=.15	**Cell 3** .331** n=58 r²=.05	**Cell 4** .333** n=49 r²=.13
		low	high	low	high	low	high
		Strategic Orientation		Management Style		Performance	
		Internal Relatedness					

Footnotes:
- The Figure shows
   1. standardized regression coefficients (beta coefficients) related to the effect of speed of integration on M&A success,
   2. the number of observations (n), and
   3. the explanatory power in each cell (r^2)
- *p < .10; **p < .05; ***p < .01

Figure 2.: Results of Regression Analyses based on Median Splits

As an example, we consider the results related to external relatedness with respect to target markets and internal relatedness with respect to strategic orientation (i.e., the first matrix shown in Figure 2). Consistent with the prediction made in part (a) of our hypothesis we observe that speed of integration has a strong positive effect on M&A success (i.e., speed of integration is most beneficial in terms of M&A success) in the case of low external and high internal relatedness. In this context (cell 4 of the matrix) we obtain a positive and highly significant regression coefficient (β = .543, p <.01). In the opposite condition of high external and low internal relatedness (cell 1 of the matrix), we observe a strong negative effect of integration speed on M&A success (β = -.399, p < .05). This finding is consistent with part (b) of our hypothesis which predicted that speed of integration will be least beneficial in this context. Furthermore, we observe that the impact of integration speed on M&A success is weaker in the other two situations (cells 2 and 3 of the matrix). This finding provides support for part (c) of our hypothesis.

While these observations are consistent with our theoretical reasoning, the question arises to which extent the differences between the regression coefficients in the different settings (i.e., the four cells of the matrix) are statistically significant. We address this question by means of pairwise Chow tests for each pair of cells. This test is based on the null hypothesis that observed differences in regression coefficients obtained in samples from different populations are produced by random effects rather than systematic differences between the populations (Chow 1960; Hardy 1992). Figure 3 presents the results. The results corresponding to the first matrix in Figure 2 are shown in the first column of Figure 3. As can be seen there this test supports the conclusion that the differences in regression coefficients are systematic in nature. The results are significant at least at the .05 level in five out of six cases. Most importantly, the difference between the regression coefficients obtained for cells 1 and 4 respectively is highly significant.

External Relatedness • Target Markets • Market Positioning	high	Cell 1	Cell 2
	low	Cell 3	Cell 4
		low	high
		Internal Relatedness • Strategic Orientation • Management Style • Performance	

	Target Markets (ER)			Market Positioning (IR)		
	Strategic Orientation	Management Style	Performance	Strategic Orientation	Management Style	Performance
Cell 1 – Cell 4	20.69***	10.26***	18.56***	19.62***	6.93**	6.76**
Cell 2 – Cell 3	3.42**	11.34***	8.88***	3.53**	6.06**	9.28***
Cell 1 – Cell 3	22.94***	17.22***	14.68***	3.67**	15.58***	12.43***
Cell 1 – Cell 2	10.37***	4.48**	3.52**	11.96***	5.56**	3.22**
Cell 2 – Cell 4	3.12**	5.52**	9.48***	21.01***	3.76**	3.99**
Cell 3 – Cell 4	.28	.50	.38	1.25	.67	1.02

Footnotes:
- The Figure shows F-values related to pairwise chow tests for each pair of matrix cells.
- ER = External Relatedness
- IR = Internal Relatedness
- *$p < .10$; **$p < .05$; ***$p < .01$

Figure 3: Chow Test Results

For the five remaining settings (i.e., the remaining five matrices in Figure 2) equivalent results are obtained. We observe consistently that speed of integration is most beneficial in terms of M&A success in the case of low external and high internal relatedness. These results provide support for part (a) of our hypothesis. Further, consistent with part (b) of our hypothesis, our findings demonstrate that speed of integration is most detrimental in terms of M&A success in the case of low internal and high external relatedness for all the remaining five settings. Additionally, as can be seen from our findings, the effect of integration speed on M&A success is weaker in the cases of high external and internal relatedness and of low external and internal relatedness. Thus, we find support for part (c) of our hypothesis.

The corresponding Chow test results presented in Figure 3 (i.e., the remaining five columns in Figure 3) show that the differences in regression coefficients are significant at least at the .05 level in five out of six cases for each of these five settings. The differences in regression coefficients are not significant only between the cases of low external/low internal relatedness (cell 3) and low external/high internal relatedness (cell 4). This is an interesting finding because it indicates that in the case of high external relatedness the beneficial effect of speed is so strong that it outweighs the detrimental effect of speed associated with high internal relatedness.

On an overall basis H_1 is fully supported by our empirical findings whereas we do not find support for H_{1alt}.

6.   Discussion and Implications

Despite many managerial statements highlighting the relevance of speed in PMI, M&A-related research has almost totally neglected this potential success factor. Against this background our research aimed at providing an improved understanding of the role of integration speed as a success factor of M&A. Our key theoretical argument was that external and internal relatedness between the merging firms jointly moderate the relationship between integration speed and M&A success.

Consistent with this reasoning we find that speed of integration exhibits a strong positive impact on M&A success in the case of low external/high internal relatedness while the impact is strongly negative in the opposite case (high external/low internal relatedness). The importance of the perspective studied in this paper is particularly highlighted by the fact that we observe a special type of moderating effect. More specifically, studies of moderating effects in empirical strategy research typically do not reveal moderator effects which are so strong that the sign of an effect is changed. Rather, it is typically the case that a moderator affects the strength of a certain relationship with this relationship still having the same sign (either positive or negative) for high and low values of the moderator variable (see e.g., the studies by Zahra and Nielsen 2002; Vermeulen and Barkema 2002). In contrast, we observe a moderator effect which is so strong that it turns the sign of the relationship under consideration (i.e., the relationship between integration speed and M&A success) from positive to negative.

We feel that our study enhances academic understanding of the factors contributing to M&A success or failure in essentially two ways. First, we provide an initial understanding of integration speed as an antecedent of M&A success. Our findings show that there is no simple answer to the question whether PMI should take place quickly or not and that many managerial statements in this context are far too simplistic. Our answer to this question is that the effect of speed on M&A success depends on the level of external/internal relatedness of the merging firms. As such, our finding is a typical contingency finding.

Second, our study also enriches previous M&A-related research by providing an advanced understanding of the role of internal and external relatedness. More specifically, previous research has focused on the question how different facets of internal and external relatedness affect M&A success (e.g., Datta 1991; Ramaswamy 1997). In contrast, our research analyzes

how internal and external relatedness affects the way how PMI should take place. In simple terms we replace the question "Should more or less related companies be merged?" by the question "How should more or less related companies be merged?" In this context we are able to show that the optimal speed of PMI strongly depends on internal and external relatedness. This finding provides a possible explanation why previous research focusing on the effect of inter-firm relatedness on M&A success has let to conflicting findings. Based on our findings one might argue that inter-firm relatedness affects how firms should be merged rather than having a direct effect on M&A performance.

A number of restrictions of our study and areas for future research should be mentioned. First, our study is restricted to marketing and sales integration. Therefore, our theoretical reasoning and our results are not necessarily generalizable to the integration of other functions. Second, it seems promising to further study the role of integration speed as a success factor. In this context it would be particularly interesting to explore possible non-linear effects of speed. As an example one might argue that an inverted U-curve relationship exists between speed and performance. Third, future studies should also explore the interplay between speed and other success factors (e.g., communication during the PMI-phase). More specifically, one might argue that the detrimental effects of speed can be (partially) overcome through adequate communication. We feel that this is an interesting field for future research. Fourth, future research should address the question whether different findings with respect to integration speed may arise in different cultural contexts. Our study was conducted in Central Europe where there is significant labor regulation so that employees` uncertainty in the case of a merger or acquisition is typically very limited. Uncertainty among employees may be more relevant in other countries with less labor regulation (such as the United States). Thus, the positive (uncertainty avoiding) internal effect of speed might be more important in such settings. Therefore we suggest replication of our study in different cultural contexts. Fifth, future studies should consider additional moderator variables that affect the relationship under consideration. As an example, one might study how prior acquisition experience of either the acquirer or the target or deeply ingrained cultures of either firm affect the link between speed and M&A success.

Finally, our study also has implications for managers. We suggest that managers involved in M&A activities should consciously determine the appropriate speed of integration taking into

account inter-firm relatedness. In simple terms, our research tells managers that there is a cost in being fast which, under certain conditions, may be more important than the benefits of being fast. We feel that this is a very important message for managers as it has become somehow fashionable to argue for speed in various management contexts and to almost treat management quality and management speed as synonyms. On a fundamental level, our basic managerial recommendation is to carefully reflect on the beneficial and detrimental effects of speed: faster is not always better.

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7. Appendix 1: Scale Items for Construct Measures

Construct	Items	Individual Item Reliability[1]	Average Variance Extracted[1]	Composite Reliability/ Coefficient Alpha[2]
Speed of Integration (Five-point rating scale 1 = more than 24 months, 2 = 19-24 months, 3 = 13-18 months, 4 = 6-12 months, 5 = less than 6 months)	How long did it take to complete the intended integration of the following aspects?		.58	.89/.82
	• Products/Services offered (e.g., harmonization of product ranges, brand names)	.53		
	• New product development	.40		
	• Prices (e.g., harmonization of the price positioning)	.58		
	• Communication (e.g., harmonization of advertisement)	.59		
	• Sales System (e.g., harmonization of sales channels, sales partners, sales offices)	.52		
	• Sales force management (e.g., harmonization of the incentive and provision systems)	.66		
	• Information systems (e.g., harmonization of the marketing/sales information systems)	.62		
	• Internal marketing/sales support	.76		
M&A Success (Seven-point rating scale with anchors 1 = significant decline, 4 = more less the same, 7 = significant increase)	Compared to the situation before the merger or acquisition, please indicate how the return on sales has developed (please consider the sum of both companies).			
Relatedness with Respect to Target Markets (Seven-point rating scale with anchors 1 = strongly agree and 7 = strongly disagree)	Please indicate the degree to which you agree with the following statements concerning the target markets of your company and the other company before the merger or acquisition?		.57	.79/.76
	• The geographical markets of both companies were mainly identical.	.69		
	• The customers of both companies were mainly identical.	.63		
	• The two companies were direct competitors.	.48		
Relatedness with Respect to Market Positioning (Seven-point rating scale with anchors 1 = strongly agree and 7 = strongly disagree)	Please indicate the degree to which you agree with the following statements concerning the market positioning of your company and the other company merger or acquisition?		.53	.85/.81
	• The products/services of both companies were focused on the satisfaction of the same customer needs.	.49		
	• The products/services of both companies were mainly based on the same technologies.	.59		
	• The products/services of both companies were mainly identical in quality.	.51		
	• The products/services of both companies were mainly sold through the same distribution channels.	.55		
	• The price positioning of the offers of both companies was mainly identical.	.50		

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APPENDIX 1: SCALE ITEMS FOR CONSTRUCT MEASURES (CONTINUED)

Construct	Items	Acquirer			Target		
		Individual Item Reliability[1]	Average Variance Extracted[1]	Composite Reliability/ Coefficient Alpha[1]	Individual Item Reliability[1]	Average Variance Extracted[1]	Composite Reliability/ Coefficient Alpha[1]
Strategic Orientation (Seven-point rating scale with anchors 1 = strongly disagree and 7 = strongly agree)	Please indicate the degree to which the strategy of your company and the strategy of the other company was focused on the following objectives before the merger or acquisition?		.53	.82/.79		.52	.81/.79
Cost-Orientation	• Achievement of cost efficiency in purchasing.	.41			.47		
	• Achievement of cost efficiency in overhead.	.65			.61		
	• Achievement of economies of scale in production.	.72			.50		
	• Standardization of products/services.	.44			.51		
Product-Orientation	• Achievement of a leading product and brand image.	.57	.57	.80/.76	.86	.66	.85/.82
	• Offering of highly innovative products/services.	.64			.66		
	• Positioning in the premium price segment.	.49			.46		
Customer Intimacy	• Customizing of products/services to the specific needs of customers.	.45	.58	.73/.71	.50	.61	.77/.74
	• Achievement of superior customer value through services accompanying the products.	.48			.68		
	• Achievement of a differentiated pricing policy in order to take into account the demand intensity of different customers.	.43			.53		
	• Penetration of existing customers.	.40			.48		
Management-Style[1] (Seven-point rating scale with anchors 1 = agree with the first mentioned characteristic and 7 = agree with second mentioned characteristic)	Please assess the management of your company and the management of the other company before the transaction given the following pairs of opposite characteristics. • Centralized vs. decentralized • Short-term oriented vs. long-term oriented • Hierarchical vs. delegative • Flexible vs. unflexible • Output-oriented vs. process-oriented • Proactive vs. reactive • Bureaucratic vs. unbureaucratic						
Performance (Seven-point rating scale with anchors 1 = far below industry-∅, 4 = industry-∅, 7 = far above industry- ∅)	Please assess your company and the other company before the merger or acquisition compared to the industry average concerning: • Market share • Return on sales	--- ---	--	--/.71	--- ---	--	--/.75

8. Appendix 2: Scale Items for Control Variables

Construct	Items	Individual Item Reliability[1]	Average Variance Extracted[1]	Composite Reliability/ Coefficient Alpha[2]
Extent of Integration (Seven-point rating scale with anchors 1 = no integration, 4 = partial integration, 7 = complete integration)	To what extent were the following aspects made similar between the two firms after the merger or acquisition?		.74	.96/.83
	• Products/Services offered (e.g., harmonization of product ranges, brand names)	.72		
	• New product development	.40		
	• Prices (e.g., harmonization of the price positioning)	.82		
	• Communication (e.g., harmonization of advertisement)	.74		
	• Sales System (e.g., harmonization of sales channels, sales partners, sales offices)	.83		
	• Sales force management (e.g., harmonization of the incentive and provision systems)	.85		
	• Information systems (e.g., harmonization of the marketing/sales information systems)	.80		
	• Internal marketing/sales support	.80		
Combined Firm Size (Seven-point rating scale with 1 = below \$25 million, 2 = \$25 to \$49 million, 3 = \$50 to \$99 million, 4 = \$100 to \$249 million, 5 = \$250 to \$499 million, 6 = \$500 to \$1,000 million, 7 = above \$1,000 million)	What was the total turnover of the two companies together in the last year?[4]			

[1] Average variance extracted and individual item reliability are reported when there are more than two items.
[2] Reports composite reliability (if more than two items) and coefficient alpha (if more than one item).
[3] The items demonstrate that fairly distinct facets of the construct of overall management styles are covered, which makes a formative measurement approach appropriate.
[4] Respondents of banks were asked to provide the sum of annual interest and provision income, respondents from insurances were asked to provide the annually collected fees.