IS SPEED OF INTEGRATION IN M&A LEARNABLE?
THE MODERATING ROLE OF ORGANIZATIONAL LEARNING ON
THE PATH OF SPEED OF INTEGRATION ON PERFORMANCE

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Abstract:
From a practical perspective speed of integration is recognized as an important success factor for the M&A integration outcome. Despite this fact the research area is largely neglected in the academic literature. The results of quantitative research on speed of integration provide us with results at a mixed blessing. There is empirical evidence for a positive, a negative, or a non-significant relationship between speed of integration and M&A performance. In line with research on speed of integration the results of acquisition experience are quite heterogeneous. In this paper we review the organizational and process literature on speed of integration and acquisition experience and develop a research model which integrates acquisition experience as a moderator for the task- and cultural integration speed effect on performance. With a sample of 104 horizontal and vertical transactions with acquirers from the German speaking part of Europe we demonstrate that cultural integration speed is beneficial while task integration speed is detrimental for M&A performance. While the effects of task integration speed becomes more positive with increasing acquisition experience, we find a slightly significant negative moderating effect for cultural integration speed. We conclude that task integration is learnable with regards to the harmonization of marketing, production, and systems while each cultural integration process is different and therefore organizational learning is not possible. Next to this we argue that firms underestimate the importance of cultural integration speed.

Keywords: Mergers & Acquisitions; Organizational learning; Speed of Integration
1. INTRODUCTION

Mergers and Acquisitions (M&A) are widely recognized as an important part of strategic management research and practice (Cartwright, 2005). They are an important source of external growth and corporate development. Even though the M&A market is cyclical and due to the current economic crises a decrease in volume and value is recognizable, the current value in the global M&A market is still comparable to the GDP of medium-sized countries (e.g. 1.78 Trillion US$ in 2011). Despite the enormous amount of research in the field of M&A, the regularly reported success rates have not improved over the last decades (Ellis, Reus, & Lamont, 2009). Most authors state that on average 40-60% of M&A’s fail in creating value (Bagchi & Rao, 1992; Bower, 2001) while a more recent paper reports a rate between 80-90% (Christensen, Alton, Rising, & Waldeck, 2011). The M&A phenomenon has been studied through several theoretical angels and perspectives (Birkinshaw, Bresman, & Hakanson, 2000; Larsson & Finkelstein, 1999) and over time four schools of thought that reduce the complexity of research occurred (Haspeslagh & Jemison, 1991). Firstly, the financial economic school is investigates wealth effects of transactions. Secondly, the strategic management school is concerned with strategic relatedness, fit, or complementarity (Phersson, 2006; Kim & Finkelstein, 2009). Thirdly, the organizational behavior school deals with cultural (Very, Lubatkin, Calori, & Veiga, 1997; Sarkar, Escambadi, Cavusgil, & Aulakh, 2001; Aw & Chatterjee, 2004) and human (Colquitt, Wesson, Porter, & Yee, 2001; Buchholtz, Ribbens, & Houle, 2003; Kavanagh & Askanasy, 2006) related pre-merger as well as post-merger issues. Fourthly, the process school investigates the integration process (Paruchuri, Nerkar, & Hambrick, 2006; Puranam, Singh, & Chaudhuri, 2009; Birkinshaw, Bresman, & Hakanson, 2000) for example speed of integration. Even though speed of integration is recognized as a decisive success factor for M&A from a practitioner’s perspective (Schlaepfer, et al., 2008), the topic is at an early stage of research (Homburg & Bucerius, 2006) and beyond the discussion of speed over elegance there is a growing recognition “that there is no simple answer to the question whether PMI should take place quickly or not […]” (Homburg & Bucerius, 2006, p. 360). While speed of integration has mainly been investigated from a process perspective (Homburg & Bucerius, 2006; Angwin, 2004), the human or cultural side of speed has largely been neglected in academic research and practice related literature. Furthermore, our understanding of the role of speed is rather limited and we do not understand the dependencies, when speed is beneficial or not (Homburg & Bucerius, 2006). Against this background the aim of this paper is to gain a deeper understanding of the role of speed of integration and to set the concept in relation to acquisition experience. Our paper will provide three main contributions to existing literature. Firstly, to overcome the simplistic assumption, that speed is weather beneficial or detrimental for the M&A outcome we argue in this paper that post-merger integration is a multifaceted process (Birkinshaw, Bresman, & Hakanson, 2000). Thus we integrate process and organizational behavior literature and broaden up the concept of speed of integration as we investigate both, the effects of cultural and task integration speed on performance. Secondly, we do not measure speed in absolute terms like the duration of integration, we rather apply a relative measure for speed of integration. Thirdly, we do not investigate the role of speed of integration isolated; we pick up a major theoretical implication from Homburg and Bucerius as we investigate the moderating role of prior acquisition experience (Homburg & Bucerius, 2006).

2. FRAMEWORK AND HYPOTHESIS

In this section we argue for the theoretical underpinnings and deduce the hypothesis of our research model as shown in figure 1.

**Figure 1:** Research model

**Speed of integration** is usually defined as the time from deal closing until the completion of the integration (Cording, Christman, & King, 2008). Most practical studies (e.g. Schlaepfer, et al., 2008) conclude that speed is beneficial and support the credo of Chase that there are “three things that matter the most here, and they are speed, speed, speed (Chase, 1998, S. 3)”. From a process
perspective the main arguments for a high speed of integration (e.g., faster returns on investment, remaining enthusiasm among stake-holders, bigger effects of early actions, limitation of customer uncertainty, reduction of the exposure to uncertainties of the external environment, and to less possibilities for competitors to respond to the new organization (Angwin, 2004; Homburg & Buceriús, 2006)) sound intuitively logical, even though there is no clear empirical evidence. From an organizational perspective the main arguments for a fast integration can be seen in less uncertainty among employees and less instability in the organization (Angwin, 2004), while other researchers argue that slow integration is essential for the mutual understanding of employees and the willingness to learn from each other (Buono & Bowditch, 2003). It is stated that the acculturation process starts with understanding and reconciliation of differences (Nahavandi & Malekzadeh, 1988), furthermore it is argued that slow integration fosters trust building (Bijlsma-Frankema, 2001) or minimizes conflicts between the employees of the merging companies (Olie, 1994). A more differentiated picture is drawn by Schweiger & Goulet or Empson as they argue that integration success is not only a question of slow integration, as integration can be managed to some extent (Schweiger & Goulet, 2005; Empson, 2004). However, the empirical results on the speed performance effect are unequivocal and range from significant positive (Angwin, 2004; Homburg & Buceriús, 2005; Cording, Christman, & King, 2008), to negative (Bijlsma-Frankema, 2001; Olie, 1994), to not significant at all (Bauer & Matzler, Antecedents of M&A success: The role of strategic complementarity, cultural fit, and degree and speed of integration, 2013a). In another study on speed of integration Homburg & Buceriús (2006) found (pending on related-ness) several relationships between speed of integration and performance (Homburg & Buceriús, 2006). While task integration is essential for the transfer of capabilities and resource sharing (Buono & Bowditch, 2003; Angwin, 2004; Homburg & Buceriús, 2006), cultural of human integration is essential for employee satisfaction and a shared identity (Birkinshaw, Bresman, & Hakanson, 2000; Olie, 1994). Even though they are conceptually different, they are not independent from each other as e.g. a shared identity could foster the transfer of capabilities the sharing of resources (Birkinshaw, Bresman, & Hakanson, 2000). For cultural integration speed we argue that a fast integration is beneficial due to less uncertainty of employees, remaining enthusiasm, and less instability in the organization (Angwin, 2004). Thus:

H1: The faster the cultural integration, the higher the M&A outcome.

Task integration is decisive for the realization of operational synergies (Birkinshaw, Bresman, & Hakanson, 2000). A faster exploitation of synergies leads to faster returns on investment, minimizes the time a company spends in sub-optimal conditions, and in which competitors could profit the carnation phase (Angwin, 2004; Homburg & Buceriús, 2006). Despite these intuitively logical sounding arguments, we follow the argumentation of Birkinshaw and colleagues (2000) and argue that a shared identity and mutual respect provide the basis for closer task integration and therefore for synergy realization (Birkinshaw, Bresman, & Hakanson, 2000). Their findings could be used as a converse argument, as quick task integration without a cultural integration leads finally to higher expenses (e.g. coordination costs) for the integration. Thus, we conclude:

H2: The faster the task integration, the lower the M&A outcome.

Organizational experience research usually adopts a learning-curve perspective and argues that organizational routines can be learned and as a consequence be improved. Thus this literature draws a positive relationship of experience on performance (Halebian & Finkelstein, 1999). For prior acquisition experience, the empirical results provide us with an unequivocal picture. In general, there is empirical evidence that firms tend to pay higher acquisition premiums when they are in situations of growth pressure (Kim, Halebian, & Finkelstein, When Firms Are Desperate to Grow via Acquisition: The Effect of Growth Patterns and Acquisition Experience on Acquisition Premiums, 2011) and acquisition experience influences the incidence of subsequent ones (Halebian, Kim, & Rajagopal, 2006). Kim, Halebian & Finkelstein (2011) point out that learning effects resulting from external advisors experience have a smoothing effect on acquisition premiums paid (Kim, Halebian, & Finkelstein, When Firms Are Desperate to Grow via Acquisition: The Effect of Growth Patterns and Acquisition Experience on Acquisition Premiums, 2011). However, work on the acquisition experience and M&A performance relationship shows diverse results. Halebian & Finkelstein (1999) discovered changing effects between acquisition experience and acquisition performance. Companies that generalized their prior experience and made acquisitions in the same industry could benefit of their prior learning (Halebian & Finkelstein, 1999). Different findings were made by Hayward (2002) who stresses that experience has to be made in either not too similar or not too dissimilar businesses to influence M&A performance. Acquisition experience also seems to be time sensitive and should not be too close or too distant to future acquisitions (Hayward, 2002). We follow the argumentation that
acquisition experience improves the acquirer’s integration skills (Hayward, 2002). Experienced acquirers have gained a specific knowledge in changing processes, structures and cultures. Thus, the specific knowledge about M&A integration rises and firms which have undertaken prior acquisitions are familiar with the carnation phase and are able to handle complex situations in a proper and faster manner. We argue that a greater experience moderates the relationship of cultural and task integration speed on the M&A outcome in a positive way. Thus:

\[ H3a: \text{The extend of prior acquisition experience moderates the relationship of task integration speed on the M&A outcome positively.} \]

\[ H3b: \text{The extend of prior acquisition experience moderates the relationship of cultural integration speed on the M&A outcome.} \]

3. METHODOLOGY

3.1 Sample and data

For testing our proposed hypotheses, we conducted a mail and internet survey with horizontal and vertical transactions to guarantee a minimum of integration. The seats of the acquirers were in the German-speaking part of Europe. For measuring the effects of integration speed on performance it was necessary that the integration process would be in either a final stage or in an already completed one (Ellis et al., 2009; Homberg & Bucerius, 2005; Zollo & Meier, 2008). Thus we limited our sample on transactions that took place between January 2007 and April 2009. As managers from the acquiring firms tend to be most knowledgeable about the intentions of the transaction and the post-merger integration (Ellis et al., 2009; Walsh, 1988), we chose them as respondents for our study. We used the Zephyr database for constructing our sample. In sum 670 transactions were identified of which 528 were relevant (reasons for exclusion were: financial transactions, transactions without contact details or transactions where the firm was going bankrupt). For eliminating deceptive items and questions in our survey instrument, we conducted a pre-test in March 2011 (Churchill, 1995). Concerning the design and structure of our questionnaire we followed Dillman’s (2000) recommendations. After follow-up phone calls we were able to generate 104 completed questionnaires. Non-response bias was tested by comparing the respondents of our two survey waves (Armstrong & Overton, 1977). The results of the test indicate that non-response bias is not a serious problem. Item non response bias was tested by using Berdie and Anderson’s item response-rate index (1976). We conclude that item non-response bias is not a serious concern for our data.

3.2 Measurement development

For measurement development, we followed King et al.'s (2004) advice and did not develop new scales, but rather relied on already existing ones (King, Dalton, Daily, & Vovin, 2004). We only modified the scales in terms of wording. Speed of integration was assessed by using the relative scale developed by Bauer and Matzler (Bauer & Matzler, 2013b). Thus, speed of integration was assessed according to the above described formula.

\[
\text{Relative speed} = \frac{\text{Degree of change on organizational level}}{\text{Scalepoints of duration of integration}} \times \text{Duration of integration}
\]

For assessing the degree of change we modified the measurement scale developed by Cording and colleagues (2008). The degree of cultural change was assessed with three while changes in tasks were measured with eight items. The duration was requested on the same levels on a 7-point scale ranging from 1=longer than 24 months to 7=less than seven months.

Acquisition Experience Acquisition experience was assessed with the number of completed prior acquisitions during the five years preceding the requested acquisition.

M&A-success as the dependent variable of our study and was assessed from a managerial perspective in which the respondents set the items in relation to the situation prior the transaction. Even though key informant bias could be a problem for our study, there is empirical evidence that managers’ ratings correlate highly and significantly with secondary data performance measures.
(Datta, 1991; Homburg & Bucerius, 2005). To assess M&A performance, we measured M&A success with two dimensions, each measured with four indicators on a seven-point scale (Becker, 2005).

As Control variables we used “relative size”, assessed in terms of turnover of the target company compared to the turnover of the buying company one year before the initial transaction in percentage. “Combined firm size” was assessed with the actual turnover of target and Buyer Company. The type of transaction was assessed with a single item ranging from 1=horizontal to 3=conglomerate transaction. “Branch growth” was assessed as the average growth rates of the three years prior the acquisition. All controls were measured with a single item.

4. RESULTS

4.1 Descriptive data and research approach

As descriptive results we show the seats of buying and target companies, relative size, branch growth, type and kind of transaction, and the annual revenues of the consolidated business (table 1).

Table 1: Descriptive results

<table>
<thead>
<tr>
<th>Location %</th>
<th>Target company:</th>
<th>CH</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying company</td>
<td>GER</td>
<td>AUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany (GER)</td>
<td>54.7</td>
<td>7.4</td>
<td>3.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Austria (AUT)</td>
<td>3.2</td>
<td>11.6</td>
<td>.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Switzerland (CH)</td>
<td>4.2</td>
<td>.0</td>
<td>7.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>62.1</td>
<td>18.9</td>
<td>10.5</td>
<td>8.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative size %</th>
<th>Branch growth %</th>
<th>Annual revenues of consolidated business in € %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25%</td>
<td>57.8</td>
<td>0.9</td>
</tr>
<tr>
<td>25% - 49%</td>
<td>&gt; -15%</td>
<td>&lt; 25 million</td>
</tr>
<tr>
<td>50% - 74%</td>
<td>4.3</td>
<td>13.8</td>
</tr>
<tr>
<td>75% - 100%</td>
<td>2.6</td>
<td>10.3</td>
</tr>
<tr>
<td>&gt; 100%</td>
<td>3.4</td>
<td>27.6</td>
</tr>
<tr>
<td>Missing</td>
<td>0.9</td>
<td>19.8</td>
</tr>
<tr>
<td></td>
<td>11% to 20%</td>
<td>100-249 million</td>
</tr>
<tr>
<td></td>
<td>21% to 30%</td>
<td>50-99 million</td>
</tr>
<tr>
<td></td>
<td>&gt; 30%</td>
<td>5% to 10%</td>
</tr>
<tr>
<td>Kind of transaction %</td>
<td>Type of transaction %</td>
<td></td>
</tr>
<tr>
<td>Merger</td>
<td>12.9</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Acquisition</td>
<td>82.9</td>
<td>Vertical</td>
</tr>
<tr>
<td>Missing</td>
<td>4.3</td>
<td>11% to 20%</td>
</tr>
</tbody>
</table>

Common method bias As we have used self-reported data in our study, a potential for common method bias remains due to consistency motif or social desirability (for details see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). For testing a potential common method bias we applied Harman’s single factor test (Podsakoff & Organ, 1986). The results indicated no serious common method bias problem. Therefore, we conclude that common method bias is not a significant problem in our data.

4.2 Results of regression analysis

For evaluating our proposed hypotheses, we computed firstly Cronbach´s Alpha for the different measurement models (Figure 2).

Table 2: Reliability analysis

<table>
<thead>
<tr>
<th>Measurement Model</th>
<th>Mean</th>
<th>STDV</th>
<th>Cronbach´s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural integration speed</td>
<td>2.31</td>
<td>.92</td>
<td>.628</td>
</tr>
<tr>
<td>Task integration speed</td>
<td>3.41</td>
<td>1.20</td>
<td>.742</td>
</tr>
<tr>
<td>Performance</td>
<td>4.82</td>
<td>1.40</td>
<td>.956</td>
</tr>
</tbody>
</table>

The results of the reliability analysis demonstrate satisfying Cronbach’s Alpha values for our measurement models. Even though 0.7 is suggested as a benchmark value for Cronbach’s Alpha, we argue that we are at an early stage of research (Hulland J., 1999) and thus rely on our measurement of cultural integration speed which does not reach the recommended value. The next table displays the correlations, mean values and the standard deviations of the variables.

Table 4: Correlations, mean values and standard deviations

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cultural Integration Speed</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results of our regression analysis show that the control variables have – to some extent – an influence on our research model. With our proposed model we are able to explain between 19.4% and 21.3% of the variance of our dependent variable M&A performance. The following table displays the results of the regressions.

Table 5: Results of the regression analysis

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Integration Speed</td>
<td>--</td>
<td>.209**</td>
<td>.196**</td>
</tr>
<tr>
<td>Task Integration Speed</td>
<td>--</td>
<td>-.235**</td>
<td>-.470**</td>
</tr>
<tr>
<td>Acquisition experience</td>
<td>--</td>
<td>.092</td>
<td>-.172</td>
</tr>
<tr>
<td>Task Integration Speed x Acquisition experience</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cultural Integration Speed x Acquisition experience</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Control variables:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined Firm Size</td>
<td>.153</td>
<td>.092</td>
<td>.056</td>
</tr>
<tr>
<td>Relative Size</td>
<td>-.203*</td>
<td>-.177+</td>
<td>-.155+</td>
</tr>
<tr>
<td>Type of Transaction</td>
<td>.350***</td>
<td>.290*</td>
<td>.265*</td>
</tr>
<tr>
<td>Branch Growth</td>
<td>-.020</td>
<td>.011</td>
<td>.019</td>
</tr>
<tr>
<td>F-value</td>
<td>5.706</td>
<td>4.440</td>
<td>4.106</td>
</tr>
<tr>
<td>R-square</td>
<td>.155</td>
<td>.189</td>
<td>.194</td>
</tr>
</tbody>
</table>

Hypothesis 1, the proposed positive effect from cultural integration speed can be confirmed, as the path is highly significant and positive. The β-value of .209** indicates a very strong positive effect. Hypothesis 2, the proposed negative effect from task integration speed can be affirmed too. The path is strongly negative with a β-value of -.235** thus we conclude that a fast task integration speed has a negative effect on M&A performance. Acquisition experience has no significant direct effect on M&A performance, but we find empirical evidence in our data that there is a positive moderating effect on the path of task integration on M&A performance. Thus, hypothesis 3a can be confirmed (β=.369*). Interestingly we find no support for our hypothesis 3a, the positive moderating effect of prior acquisition experience on the path of cultural integration speed on M&A performance. The data shows the opposite effect with a significant β-value of -.642+. Even though the moderating effects are only significant at a 10% level, we argue that with a greater sample the moderation would become more significant.

5. DISCUSSION

Implications The results of our research lead to several implications. Firstly, our study does not confirm the vast body of practical and academic literature which states that there is a short "window of opportunity" (Angwin, 2004; Schlaepfer, et al., 2008). Interestingly we even found a negative effect from task integration speed on performance. Thus our results support the conclusion from Birkinshaw and his colleagues as they state that a fast human integration is beneficial for a shared identity and for mutual trust which provide a basis for effective task integration (Birkinshaw, Bresman, & Hakanson, 2000). We conclude that on the one hand the costs for task integration without any human integration are higher than the beneficial effects of a fast synergy realization and on the other hand that firms are not able to realize task integration in sustainable way fast. Secondly, we found no empirical evidence that experienced acquirers outperform others. Here we are in line with other researchers who found unequivocal relationships between experience and performance (Haleblian & Finkelstein, 1999; Haleblian, Kim, & Rajagopalan, 2006). But we can see that there is a positive organizational learning effect with regards to task integration speed. Thus, experienced acquirers are able to manage the task integration process in a proper and faster way and they are able to avoid – to some extent – the negative effect of a high task integration speed. Thirdly, we have to state that organizational learning with regards to M&A is limited to task integration. Thus, firms can profit from experience only with
regards to “hard facts” but not with “soft facts”. One reason for the strong negative effect of experience on the path from cultural integration speed on performance could be managerial overconfidence. We argue that managers draw conclusions from prior acquisitions which are in terms of culture or humans not comparable. A generalization in terms of cultural or human integration seems not possible.

Limitations Due to our applied method there are some inherent limitations. Firstly, as with all “self-reports” we are faced with a potential common method bias (Podsakoff & Organ, Self-reports in organizational research: Problems and prospects, 1986; Puranam, Singh, & Chaudhuri, 2009) even though Harman’s single factor test indicates no serious problem. Furthermore we are concerned with the problems of the "capacity of recollection" and “to positive assessment in the long run” (Golden, 1992). Due to our limited sample size we want to mention the correlation of the number of observations and significance. Next to methodological limitations there are some limitations with regards to content. Firstly we do not explore the value creating mechanisms of speed of integration which would be a valuable floor for future research. Secondly we do not investigate other determining factors as relatedness or cultural compatibility. Thirdly we used a borrowed modified measurement model for speed of integration. It would be highly relevant for future researchers, to investigate a managerial perception of speed of integration.

REFERENCE LIST


