Essays on mergers and acquisitions (M&A): Structural topic modeling for M&A research, and the impact of M&A process organization and M&A advisors on M&A success

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Contents

1	Synopsis	5
2	Paper I:	
	"M&A literature viewed through structural topic modeling: An insightful perspective?"	23
3	Paper II:	
	"What matters for organizing M&As successfully?"	97
4	Paper III:	
	"What are the effects of strategy consultants, financial, and legal M&A advisors on	
	M&A success?"	163

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Synopsis to the cumulative dissertation

"Essays on mergers and acquisitions (M&A): Structural topic modeling for M&A research, and the impact of M&A process organization and M&A advisors on M&A success"

Alexander Schmitz^a

Acknowledgments: First and foremost, I thank my doctoral supervisor for his guidance and our inspiring discussions far beyond research questions—thank you very much, Soenke. To the same extent, I am thankful for the support from various people close to me throughout my doctoral journey—a special thank you to my significant other, Bella. Moreover, I am grateful to Jens Kengelbach, André Kronimus, Georg Keienburg, Moritz Kordes, Thorsten Semrau, Caren Sureth-Sloane, Michael Ebert, and seminar participants at the Paderborn University for helpful comments. Also, I am thankful for feedback from various experts working in corporate M&A departments, management consultancies, and private equity firms. Moreover, I am grateful to anonymous reviewers for helpful comments. Furthermore, I thank all survey participants who provided the necessary data for parts of this dissertation. Last but not least, I thank American Journal Experts for their language editing assistance.

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1 Introduction

The market for corporate control is massive. In recent years, the annual merger and acquisition (M&A) volume has surpassed 3.5 trillion USD¹, thereby being on par with Germany's GDP. Furthermore, thousands of firms participate in the market for corporate control. As a matter of fact, about 50,000 transactions have been announced annually in recent years¹. While these firms engage in M&A activities for various reasons (Rabier, 2017), they all have one thing in common: They seek to conduct M&As successfully. However, extant research shows that many transactions are not necessarily successful (e.g., Datta et al., 1992; Jensen and Ruback, 1983; King et al., 2004).

Scholars have been investigating the matter of M&As and, in particular, the M&A success for more than 40 years (e.g., Datta et al., 1992; Ferreira et al., 2014; Haleblian et al., 2009; Jensen and Ruback, 1983; King et al., 2004; Mulherin et al., 2017). Nevertheless, much is yet to be understood about the drivers of firm's M&A success (e.g., Golubov et al., 2015; Gordon et al., 2019; Haleblian et al., 2009). Therefore, this cumulative dissertation first takes a bird's eye perspective on the body of extant M&A literature, and second, builds on recent findings to further investigate the phenomenon of M&A success by looking into the black box of firms' M&A activities.

This synopsis constitutes the dissertation's preface and is structured as follows. The next section outlines the dissertation's overall content and structure (section 2). In section 3, I provide an overview of the related literature, by which this dissertation is motivated. Thereafter, in section 4, I formulate the dissertation's research questions, present the utilized methodologies, summarize its key findings, and demonstrate its contribution to the extant literature. Section 5 highlights paths for future research based on this dissertation's insights. Finally, section 6 informs regarding the publication status of the dissertation's papers and provides each paper's title page for one's initial reading.

2 Dissertation's overall content and structure

The dissertation at hand is cumulative and comprises three academic papers with equal contribution to the complete works. Figure 1 outlines the dissertation's overall content and structure. Generally speaking,

¹According to the M&A statistics of the Institute for Mergers, Acquisitions and Alliances. Please refer to https://imaa-institute. org/mergers-and-acquisitions-statistics/ (accessed Oct. 30, 2020).

papers I through *III* are individual research contributions to the M&A literature that are somewhat interconnected. *Paper I* provides an overview of the M&A literature. *Paper II* details this overview with regard to M&A success and M&A process organization. *Paper III* further extends this perspective by considering M&A success and M&A advisors.

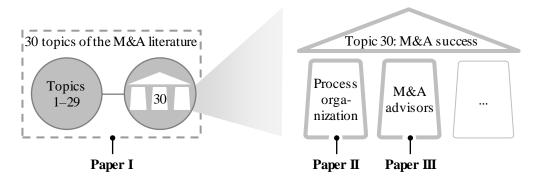


Figure 1. Dissertation's overall content and structure

Notes. This schema depicts the dissertation's overall content and structure. Please note that the presented relationship is simplified for illustrative purposes. In fact, *papers II* and *III* consider M&A success from topic 30 as the dependent variable, and estimate the impact of various independent variables from other topics, such as M&A advisors on M&A success. Please also note that the actual label of topic 30 in *paper I* is "influences on [M&A] performance"—here, the label is renamed for a simplified presentation.

More specifically, *paper I* considers the leading M&A literature published during the last three decades, and investigates whether one of the latest topic modeling methods, namely structural topic modeling (STM), can provide a new insightful perspective to the body of extant research. Thus, *paper I* presents a novel form of a literature review. Among others, one key finding of *paper I* is that the M&A literature can be appropriately structured into 30 topics². While *paper I* remains on a bird's eye perspective, *papers II* and *III* consider the identified topic 30 "M&A success" in detail, as each paper analyzes a specific pillar of M&A success³. On the one hand, *paper II* attempts to answer the question how is M&A success associated with firm internal M&A process organization? On the other hand, *paper III* analyzes the question what are the effects of strategy consultants, financial, and legal M&A advisors on M&A success?

Papers II and *III* are not only sharing the same dependent variable, namely M&A success but their analyses are also based on the same survey data. In addition, both papers are connected via the independent variable concerning the standardization of M&A processes. In *paper II*, M&A process standardization is found to be significantly positively affecting M&A success. In *paper III*, this finding is leveraged, and M&A process standardizations is utilized as a mediator variable. While both papers answer distinct research questions (see above), *paper III* can be considered an extension of *paper II* that incorporates external M&A advisors

²Please note that the topic numbers themselves are arbitrary, thereby not implying a ranking.

³Please note that the presented relationship is simplified for illustrative purposes. In fact, *papers II* and *III* consider M&A success from topic 30 as the dependent variable, and estimate the impact of various independent variables from other topics, such as M&A advisors on M&A success. Please also note that the actual label of topic 30 in *paper I* is "influences on [M&A] performance"—here, the label is renamed for a simplified presentation.

into parts of the M&A process perspective. Given the relationship of *papers II* and *III*, one might wonder whether the findings of *paper III* also feed back onto the findings of *paper II*. However, this potential feedback effect alters the findings of *paper II* by less than one percent on average.

3 Related literature and motivation

Despite their common embedding into the field of M&As, *papers I* through *III* relate to different literature strands that motivate each paper. With regard to paper I, I recognize that the continuous incline of M&A activity and of M&A transaction volumes¹ cause much academic attention. Being eager to understand the many different facets of M&As, scholars have been creating an extensive body of M&A related papers (Mulherin et al., 2017). While literature reviews try to summarize and structure the extensive research (e.g., Ferreira et al., 2014; Haleblian et al., 2009; Mulherin et al., 2017), they face a natural limitation, which stems from the fact that manual reading cannot cope with the ever growing body of M&A texts. In other words, the extant research increasingly exceeds human processing capabilities, and may make human approaches less reliable compared to automated approaches (Roberts et al., 2014). As an alternative approach, one might turn to automated data-driven methods to deal with the vast text data, thereby summarizing and structuring it (Grimmer and Stewart, 2013). Roberts et al. (2016a) support this idea by arguing that these methods allow for new perspectives that were not possible a decade ago. However, is a literature review through this new perspective also insightful concerning the already well-covered but complex field of M&A research (Haleblian et al., 2009; Larsson and Finkelstein, 1999)? Following this line of thought in paper I, I am-to the best of my knowledge-the first to apply a recently developed automated approach, namely STM (Lucas et al., 2017; Roberts et al., 2016b; Roberts et al., 2019) to take a new view at the body of M&A research.

Turning to *paper II*, we⁴ recognize that the question what matters in regard to making an acquisition successful (i.e., topic 30—pillars to M&A success) has been investigated for 40 years without a final conclusion (e.g., Datta et al., 1992; Jensen and Ruback, 1983; King et al., 2004). Recently, Golubov et al. (2015) picked up this long standing puzzle and found that firm internal factors account for a large proportion of a firm's M&A success. However, Golubov et al. (2015) do not concretize which internal firm factors affect M&A success but speculate, for example, that differences in M&A processes might cause the observed M&A success heterogeneity. At this point, one might wonder why the M&A process perspective does not yet speak to this matter, although it is has been developed in the mid-1980's, and although it already emphasized the

⁴Please note that throughout this synopsis I use the term "we" to indicate that *papers II* and *III* are co-authored with Soenke Sievers.

importance of the entire M&A process for the M&A outcome (Haspeslagh and Jemison, 1991; Jemison and Sitkin, 1986). The cause for this research gap is that the process oriented M&A research has not focused on the whole M&A process but has mostly concentrated on the post-M&A integration and its impact on M&A success (e.g., Gomes et al., 2013; Graebner et al., 2017; Steigenberger, 2017; Very, 2011). Thus, the interconnection of the M&A process as a whole and its effects on M&A success have been disregarded thus far (Bauer and Matzler, 2014). This observation is supported by Haleblian et al. (2009), who argue that the impact of organizational antecedents, such as M&A processes on M&A success are not yet sufficiently explored. Therefore, we revive Jemison and Sitkin's (1986) M&A process perspective, and consider firms' entire M&A processes in detail to investigate the processes' impact on firms' M&A success.

In paper III, we consider two further literature strands—M&A advisors and M&A functions—to shed more light onto the M&A success puzzle. While we focus on M&A advisors in this paper, both strands are intertwined, and M&A functions should not be disregarded in this context. The extant M&A research uniformly agrees that M&As are complex tasks for firms (e.g., Haspeslagh and Jemison, 1991; Jemison and Sitkin, 1986; Larsson and Finkelstein, 1999). Consequently, a sophisticated skill set is required to perform M&As successfully. Recognizing this challenge, firms either employ external M&A advisors (e.g., Golubov et al., 2012; Gordon et al., 2019; Jemison and Sitkin, 1986; Very and Schweiger, 2001), or build up internal capabilities via an M&A function (e.g., Menz and Barnbeck, 2017; Trichterborn et al., 2016)—both options are nonmutually exclusive but might complement each other. With regard to M&A advisors, one might expect that these proven experts benefit a firm's M&A success. While this is generally true in the theory on expert performance (e.g., Anderson et al., 1997; Chi and Glaser, 1988; Day and Lord, 1992; Ericsson and Lehmann, 1996; Ericsson and Charness, 1994; Reeves and Weisberg, 1994; Voss and Post, 1988), the extant M&A research is ambiguous concerning the impact of M&A advisors on M&A success. Thus far, scholars have found that M&A advisors have a negative impact (e.g., Hayward, 2003; Hunter and Jagtiani, 2003; Louis, 2005), no significant impact (e.g., Loyeung, 2018; Servaes and Zenner, 1996), and a positive impact (e.g., Bao and Edmans, 2011; Bowers and Miller, 1990; Golubov et al., 2012; Kim et al., 2011; McDonald et al., 2008; Raghavendra Rau, 2000) on M&A success. Furthermore, research on M&A advisors is relatively scarce, mostly limited to financial advisors, and does not explore in detail how the advisors affect M&A success (Gordon et al., 2019). With regard to the internal M&A function, Aktas et al. (2020) and Trichterborn et al. (2016) recently demonstrated that an M&A function positively impacts M&A success. This finding is in line with similar observations in the context of alliance functions (Kale et al., 2002) and corporate development functions (Menz and Barnbeck, 2017). Furthermore, the extant research emphasizes the importance of the domain specific function's organizational setup, as its various

setups may differently affect domain specific (e.g., M&A) success (Kale et al., 2002; Menz and Barnbeck, 2017; Trichterborn et al., 2016). Given that Golubov et al. (2012) also find interdependencies between M&A advisors and the M&A function, we account for the potential effects of the M&A function on both M&A success and M&A advisors by introducing a comprehensive framework in our model that controls for the existence and the various organizational setups of the M&A function.

4 Research questions, methodologies, findings, and contributions

4.1 Paper I

In *paper I*, I view the extant M&A literature through STM to understand whether this is an insightful perspective that provides helpful and/or new evidence for the complex field of M&A research (Haleblian et al., 2009; Larsson and Finkelstein, 1999). In particular, this paper is focused around two guiding research questions. First, I investigate whether STM can generate insights of the M&A literature that may help novice M&A scholars (i.e., scholars who are unfamiliar with the body of M&A research) to get an organized and guided start with it. Second, I explore whether STM can shed light on the fragmentation of the extant M&A research, thereby outlining potentials for future research.

Besides the focus on the M&A literature, this study's methodology—STM—takes a center stage. To date, STM is the latest so-called topic modeling approach, and, technically speaking, it is an automated data-driven unsupervised probabilistic generative model (Lucas et al., 2017; Roberts et al., 2016b; Roberts et al., 2019). In other words, STM is an autonomous algorithm that runs without any further user input once initiated, and that leverages statistical methods to generate results from given data without being limited to it. Ignoring the technical details and putting it simple, STM investigates a given set of documents to find the latent (i.e., unobservable) topics therein. Compared to other methods, such as latent Dirichlet allocation (LDA) (Blei et al., 2003), STM is most advanced because it generates a topic model that accounts for topic correlation, and that incorporates the underlying documents' metadata (e.g., publication years) into its estimations (Blei et al., 2003; Blei and Lafferty, 2007; Lucas et al., 2017; Roberts et al., 2016b; Roberts et al., 2019). To answer the above stated research questions, I apply STM to a sample of 961 relevant M&A articles that were gathered from 22 peer-reviewed leading journals in the fields of accounting, economics, finance, and management, and that were published from 1988 until 2018.

Regarding the first research question—helpful insights for novice scholars—I find that the leading M&A literature can be well described by 30 topics. This novel topic structure allows for a better organized initial access to the complex body of M&A research, which is not available thus far. Furthermore, I compile a tabular overview of the 25 most important research articles per topic. This overview may help novice scholars to quickly identify relevant M&A articles for their interests and guide their reading. Finally, I demonstrate the shifts in M&A research interest over time, thereby helping (novice) scholars to understand M&A research dynamics better. Overall, these findings extend Ferreira et al.'s (2014) insightful bibliometric M&A study in terms of scope, methodological sophistication, and detail (e.g., regarding the identified research topics). In sum, my findings significantly contribute to the much-needed hands-on information that novice M&A scholars seek to get started in the complex environment of M&A research.

Considering the second research question—shedding light on the M&A research fragmentation—I arrive at two observations for the research domains of accounting, economics, finance, and management. First, M&A research is partially well connected across the aforementioned domains. Second, however, domain specific topics exist (e.g., banking topics in finance), and, in particular, the domains of finance and management should be better interconnected by future M&A research. Turning to the fragmentation of the identified topics overall (i.e., without considering the underlying domains), I find that the 30 M&A topics are at least in parts fragmented, and future research should seek to better interlink the extant M&A literature. Here, I contribute to the existing M&A literature in two ways. On the one hand, my findings renew Haleblian et al.'s (2009) observation that the leading M&A literature is still fragmented today. On the other hand, the presented evidence guides future research in terms of which topics require further interconnection to reduce the M&A research fragmentation.

4.2 Paper II

In *paper II*, we take a look into the black box of acquirers' M&A process activities, thereby exploring three research questions. First, we investigate the impact of acquirers' M&A process standardization (STD) onto their M&A success. Second, we estimate the effects of the M&A process intensity (i.e., duration (DUR) and attention (ATT)) on M&A success. Finally, we study the impact of functional involvement on M&A success. The latter analysis comprises four functions of the acquiring firm—the top management (ITM), the headquarters (HQ) functions (IHF), the business unit (BU) management (IBM), and the BU functions (IBF).

As suggested by the M&A process perspective (Haspeslagh and Jemison, 1991; Jemison and Sitkin, 1986), we consider the entire M&A process from deal preparation to target integration. Specifically, we build on a very detailed M&A process (see Calipha et al. (2010) for an overview) that comprises a total of 15 M&A subprocesses, such as target search, negotiation, and operational integration. While these subprocesses allow for more precise analyses, they also add significant complexity to our estimations. In an attempt to conquer the complexity without sacrificing any details, we choose to follow a two-step approach. First, we investigate each of the above-mentioned research questions on an aggregated (i.e., index) level. Thus, we combine all 15 subprocesses of the entire M&A process per research question into an index-variable to generate overall findings per research question, which in turn are better communicable and easier to interpret. Consequently, we estimate seven indices, namely the STD-index, the DUR-index, the ATT-index, the ITM-index, the IBF-index, and the IBF-index. We follow this approach because it has been successfully applied in similarly complex research settings (e.g., Bebchuk et al., 2009; Gompers et al., 2003). In the second step, we disaggregate each index into its respective subprocesses to identify each index's driver variables. All aforementioned estimates are performed via generalized linear models (GLMs), and are based on a unique data set of 126 firms, which was gathered through our 2020 global M&A survey. This survey was designed and conducted following established best practices (e.g., Bodnar et al., 2019; Capron et al., 1998; Gompers et al., 2016; Graham and Harvey, 2001; Jagannathan et al., 2016; Zollo and Singh, 2004). For instance, we extensively and successfully assessed our sample for representativeness by comparing it to commonly used archival databases, such as Securities Data Company (SDC) Platinum.

With regard to the research questions, we find that M&A process standardization, M&A process duration, and M&A process attention positively impact M&A success by 5.4%, 3.4%, and 17.4%, respectively. Similarly, the involvement of the top management and the BU management affect M&A success positively by 21.2% and 13.3%, respectively. To our surprise, the HQ functions' involvement and the BU functions' involvement reduce M&A success by -7.6% and -3.6% (not significant), respectively. All previously reported numbers are significant marginal effects on the index level, which should be merely interpreted as associative but not as causal. While the disaggregation of each index variable provides multifaceted interesting insights, one may refer to the comprehensive discussions and interpretations in *paper II* thereof.

Overall, this study's contributions are threefold. First, we contribute to the management literature by leveraging the M&A process perspective (Jemison and Sitkin, 1986) to uncover in how far standardization, intensity, and involvement along the entire M&A process are associated with M&A success. Second, we add to the finance research, as we concretize Golubov et al.'s (2015) presumption that differences in M&A

processes account for the heterogeneity among firms' M&A success. Finally, we provide an extensive and handy guide to M&A practitioners that may help their decisions concerning how (not) to organize their M&A processes.

4.3 Paper III

In *paper III*, we take yet another look inside the black box of acquirers' M&A activities. Here, we focus our research question on the direct and the indirect effects of M&A advisors on acquirers' M&A success. The attribute "indirect" indicates that the effects are mostly mediated by M&A process standardization. With regard to M&A advisors, we are especially interested in how far the effects on M&A success differ depending on, first, how frequently M&A advisors are employed, and, second, which M&A advisor types are employed. Considering the advisor employment frequency, we contemplate the four cases that advisors are never, sometimes, only for complex acquisitions, or always employed by an acquirer. Regarding the M&A advisor types, we distinguish four groups of M&A advisors—financial advisors, legal/tax/audit advisors, strategy consultant advisors, and any of the aforementioned advisors.

In this paper, we rely on the same unique survey data as in *paper II*. While the underlying sample firms are broadly the same in both papers⁵, the analyzed variables are different, except for the controls and the demographics. Furthermore, we utilize a different methodology. In fact, the direct and the indirect effects for all outlined characteristics of the M&A advisors (i.e., frequency and type) and of the M&A functions (i.e., organizational setup) are estimated by generalized structural equation modeling (GSEM). GSEM combines structural equation modeling (SEM) and GLMs (Rabe-Hesketh et al., 2004). Thus far, GSEM is a relatively new and seldom used methodology that allows us to simultaneously estimate the entire model, and that allows us to follow current best practices otherwise not realizable, such as accounting for nonnormal distributed variables and standardizing coefficients (e.g., Iacobucci, 2012; Jose, 2013; MacKinnon, 2008; Preacher and Hayes, 2004; Preacher and Hayes, 2008; Shook et al., 2004; Zhao et al., 2010).

To better digest the paper's results, we summarize the significant direct and the significant indirect effects, thereby generating respective total effects for the various M&A advisors. Considering only the total effects of the M&A advisors on M&A success, we find the following. First, M&A advisor reduce the M&A success by -5.3% to -0.7% if employed for complex acquisitions only. Second, M&A advisors increase M&A success by 0.4% to 3.7%, when hired sometimes and for every acquisition. In these cases, M&A advisors provide

⁵The sample firms in *papers II* and *III* are the same except for nine firms that had to be eliminated in *paper III* due to missing but necessary data.

the greatest benefits if always employed instead of just sometimes. Finally, strategy consultants prove to be most beneficial, and increase M&A success by up to 3.7%, thereby outperforming financial advisors by approximately one percentage point. All previously reported numbers are marginal effects, which should be merely interpreted as associative but not as causal. For the details on all indirect and direct effects as well as all investigated cases concerning the M&A advisors, one may refer to the comprehensive discussions in *paper III*.

Overall, this paper contributes to the extant M&A literature in two ways. First, we generally extend the to date relatively scarce M&A advisor literature (Gordon et al., 2019). Here, we are the first to combine various M&A advisors in one model, thereby being able to compare their effects on M&A success against each other. Also, we are the first to explicitly study the impact of strategy consultants as M&A advisors. Second, our integrated research model is the first to consider M&A advisors alongside the M&A function and its various organizational setups, thereby controlling for potential cross-effects on M&A success.

5 Future research

This dissertation offers various points of contact for future research. Indeed, each paper sparks ideas that could be extended by other scholars. On the one hand, *paper I* may guide future research to reduce the fragmentation of the M&A literature by better interconnecting outlined M&A topics. On the other hand, *paper I* may be considered an experiment that is the first to apply a relatively new method to create innovative literature reviews in the context of the economical sciences. Consequently, I hope that this study can function as a blueprint for future research.

While *paper II* steps on new territory regarding several details of the M&A process perspective, we must acknowledge that the underlying theory is not yet well developed, and further empirical findings are hardly existent. Thus, future research may develop more M&A process related theories, and empirically compare those to our findings.

Paper III confirms at least two gaps in the M&A literature that could be addressed by future research. First, strategy consultant advisors are not yet—to the best of our knowledge and according to Gordon et al. (2019)—studied in the M&A literature, although we find them to be important for M&As. Second, while we observe that M&A advisors have a significant indirect effect on M&A success via M&A process standardization, other potential indirect effects are yet to be investigated. Apart from these points of contact for future research, *papers I* through *III* may be extended regarding their respective underlying samples and methodologies to address their current limitations, and to further improve their results. Please find the detailed discussions on paths for future research in each paper.

6 Publication status

Please note that the *papers I* through *III* are currently being revised for (re-)submission to leading academic journals. To date, the papers are each already published within the SSRN working paper series⁶. Please note that the dissertation's versions of the *papers I* through *III* might not reflect the latest revisions in the future. Thus, references should be made to the up-to-date online versions only.

Please find the title pages of *papers I* through *III* on the following pages. The complete papers follow thereafter in accordance with the table of contents. Please note that the pages of this dissertation are marked with a running head in the top right corner (here *Synopsis*) to allow for an easier navigation across the complete works.

⁶Please note that the online versions and the dissertation's versions of the *papers I* through *III* differ in detail since the online versions comply with journal specific style requirements, whereas the dissertation's versions are equalized to an uniform appearance within this merged "exam version".

M&A literature viewed through structural topic modeling: An insightful perspective?

Alexander Schmitz^a

This Version: Doctoral Exam (for references, please cite up-to-date online version only)

Abstract

Literature overviews help to summarize and structure extant knowledge. As the body of academic texts increasingly exceeds human processing capabilities, one might turn to automated data-driven methods for help. As a potential blueprint example for high-level literature overviews in the economic sciences, this study investigates whether one of the latest topic modeling methods, namely structural topic modeling (STM), can provide an insightful perspective to the merger and acquisition (M&A) literature. First, I ask whether STM provides insights into the M&A literature that may help scholars who are unfamiliar with the overall body of M&A research. Second, I explore whether this new perspective can shed light on the degree of M&A literature fragmentation, thereby guiding future research. Considering 961 M&A papers published in leading journals from 1988 to 2018, I find that this sample of the M&A literature can be appropriately structured into 30 topics, which may help scholars to gain a better organized access to the extant M&A research. Furthermore, I provide a tabular overview of the 25 most important papers per topic, which may guide scholars' initial reading. In addition, I demonstrate the evolution of M&A research interest over time. Regarding the literature fragmentation, I find that some topics are well connected across topic clusters, and across research fields. However, significant fragmentation for several topics is uncovered, and gaps for more integrative future research are identified. In conclusion, STM allows for a new perspective on the M&A literature that can be considered insightful for both novice and seasoned scholars.

Keywords: Mergers, Acquisitions, Literature overview, Structural topic modeling

JEL Classification: G34

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What matters for organizing M&As successfully?

Alexander Schmitz^a, Soenke Sievers^a

This Version: Doctoral Exam (for references, please cite up-to-date online version only)

Abstract

How is merger and acquisition (M&A) success associated with firm internal M&A process organization? The literature thus far acknowledges that unobservable internal firm characteristics are at least as important as observable firm- and deal-specific characteristics in regard to explaining M&A success. Thus, this paper directly asks M&A experts around the globe to shed more light on this important issue. We investigate three indices, capturing the degree of M&A 1) process standardization, 2) process duration, and 3) process attention. Next, we analyze the process participation among four organizational layers, i.e., the functional involvement of the a) top management team, b) headquarters, c) business unit management, and d) business unit functions. We predict and find that all three indices are positively associated with M&A success, while process standardization and attention to deal strategy are of particular importance. Turning to the four organizational layers, a textured analysis shows that, for instance, target valuation should be performed by the headquarters functions but not by the top management team or the business unit. Overall, our findings are important to better understand unexplored M&A success drivers and provide directions for future research. Finally, our results might help practitioners adjust their M&A process organization to further improve their M&A success.

Keywords: Mergers, Acquisitions, M&A success, M&A processes, M&A organization JEL Classification: G34

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Remark: This study is a companion paper to Schmitz and Sievers (2021), in which we investigate M&A advisors and M&A success, and which is based on the same survey sample but different key variables. If one would include the companion paper's key variables in this study, all key results hold and slightly alter in strength (mostly less than 1% in marginal effects).

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Synopsis

What are the effects of strategy consultants, financial, and legal M&A advisors on M&A success?

Alexander Schmitz^a, Soenke Sievers^a

This Version: Doctoral Exam (for references, please cite up-to-date online version only)

Abstract

This paper empirically evaluates the effects of various merger and acquisition (M&A) advisors on perceived M&A success by using survey data from M&A experts around the globe. The dataset includes three different M&A advisor types including legal/tax/audit advisors, financial advisors, and, most importantly, strategy consultants. In addition, we are able to employ a comprehensive control framework that considers the functional setup of the M&A organization of firms, e.g., whether M&A activities are organized at the headquarters or at the business unit level. Our main results show that, ceteris paribus, strategy consultants increase M&A success by up to 3.7%, thereby exceeding benefits from other M&A advisors, such as financial advisors by more than one percentage point. Finally, M&A success is improved the most if M&A advisors are hired regularly. The effects from the M&A advisors are partially mediated by the M&A process standardization channel.

Keywords: Mergers, Acquisitions, M&A success, M&A advisors, M&A functions

JEL Classification: G34

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Remark: This study is a companion paper to Schmitz and Sievers (2020), in which we investigate M&A processes and M&A success, and which is based on the same survey sample but different key variables.

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References

- Aktas N, Boone A, Witkowski A, Xu G, Yurtoglu B (2020) The Role of Internal M&A Teams in Takeovers. *Rev Financ* forthcoming.
- Anderson JR, Fincham JM, Douglass S (1997) The role of examples and rules in the acquisition of a cognitive skill. *J Exp Psychol Learn Mem Cognit* 23(4):932–945.
- Bao J, Edmans A (2011) Do Investment Banks Matter for M&A Returns? Rev Financ Stud 24(7):2286–2315.

Bauer F, Matzler K (2014) Antecedents of M & a Success: The Role of Strategic Complementarity, Cultural Fit, and Degree and Speed of Integration. *Strateg Manag J* 35(2):269–291.

- Bebchuk L, Cohen A, Ferrell A (2009) What Matters in Corporate Governance? *Rev Financ Stud* 22(2):783–827.
- Blei DM, Ng AY, Jordan MI (2003) Latent Dirichlet allocation. J Mach Learn Res 3(4-5):993–1022.
- Blei DM, Lafferty JD (2007) A correlated topic model of Science. Ann Appl Stat 1(1):17-35.
- Bodnar GM, Giambona E, Graham JR, Harvey CR (2019) A View Inside Corporate Risk Management. *Manag Sci* 65(11):4951–5448.
- Bowers HM, Miller RE (1990) Choice of Investment Banker and Shareholders' Wealth of Firms Involved in Acquisitions. *Financ Manag* 19(4):34–44.
- Calipha R, Tarba S, Brock D (2010) Mergers and acquisitions: A review of phases, motives, and success factors. Cooper C, Finkelstein S (Eds.) *Advances in Mergers and Acquisitions* in Advances in Mergers & Acquisitions (Emerald Group Publishing Limited, Bingley, UK), 1–24.
- Capron L, Dussauge P, Mitchell W (1998) Resource redeployment following horizontal acquisitions in Europe and North America, 1988-1992. *Strateg Manag J* 19(7):631–661.
- Chi MTH, Glaser R (1988) Overview. Chi MTH, Glaser R, Farr MJ (Eds.) *The Nature of Expertise* (Lawrence Erlbaum, Hillsdale, NJ), XV–XXVIII.
- Datta DK, Pinches GE, Narayanan VK (1992) Factors influencing wealth creation from mergers and acquisitions: A meta-analysis. *Strateg Manag J* 13(1):67–84.
- Day DV, Lord RG (1992) Expertise and Problem Categorization: The Role of Expert Processing in Organizational Sense-Making. *J Manag Stud* 29(1):35–47.
- Ericsson KA, Lehmann AC (1996) Expert and exceptional performance: evidence of maximal adaptation to task constraints. *Annu Rev Psychol* 47:273–305.
- Ericsson KA, Charness N (1994) Expert performance: Its structure and acquisition. *Am Psychol* 49(8):725–747.
- Ferreira MP, Santos JC, Almeida MIR de, Reis NR (2014) Mergers & acquisitions research: A bibliometric study of top strategy and international business journals, 1980–2010. *J Bus Res* 67(12):2550–2558.
- Golubov A, Petmezas D, Travlos NG (2012) When It Pays to Pay Your Investment Banker: New Evidence on the Role of Financial Advisors in M&As. *J Financ* 67(1):271–311.
- Golubov A, Yawson A, Zhang H (2015) Extraordinary acquirers. J Financ Econ 116(2):314–330.
- Gomes E, Angwin DN, Weber Y, Yedidia Tarba S (2013) Critical Success Factors through the Mergers and Acquisitions Process: Revealing Pre- and Post-M&A Connections for Improved Performance. *Thunderbird Int Bus Rev* 55(1):13–35.
- Gompers P, Ishii J, Metrick A (2003) Corporate Governance and Equity Prices. Q J Econ 118(1):107–156.
- Gompers P, Kaplan SN, Mukharlyamov V (2016) What do private equity firms say they do? *J Financ Econ* 121(3):449–476.
- Gordon J, Sieiro G, Ellis K, Lamont B (2019) M&A Advisors: Padding Their Pockets or Source of Expertise? Cooper C, Finkelstein S (Eds.) Advances in Mergers and Acquisitions in Advances in Mergers & Acquisitions (Emerald Publishing Limited, Bingley, UK), 27–49.
- Graebner ME, Heimeriks KH, Huy QN, Vaara E (2017) The Process of Postmerger Integration: A Review and Agenda for Future Research. *Acad Manag Ann* 11(1):1–32.
- Graham JR, Harvey CR (2001) The theory and practice of corporate finance: evidence from the field. *J Financ Econ* 60(2-3):187–243.
- Grimmer J, Stewart BM (2013) Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts. *Polit Anal* 21(3):267–297.

- Haleblian J, Devers CE, McNamara G, Carpenter MA, Davison RB (2009) Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda. *J Manag* 35(3):469–502.
- Haspeslagh PC, Jemison DB (1991) Managing Acquisitions (Free Press, New York, NY).
- Hayward MLA (2003) Professional influence: The effects of investment banks on clients' acquisition financing and performance. *Strateg Manag J* 24(9):783–801.
- Hunter WC, Jagtiani J (2003) An analysis of advisor choice, fees, and effort in mergers and acquisitions. *Rev Financ Econ* 12(1):65–81.
- Iacobucci D (2012) Mediation analysis and categorical variables: The final frontier. *J Consumer Psychol* 22(4):582–594.
- Jagannathan R, Matsa DA, Meier I, Tarhan V (2016) Why do firms use high discount rates? *J Financ Econ* 120(3):445–463.
- Jemison DB, Sitkin SB (1986) Corporate Acquisitions: A Process Perspective. *Acad Manag Rev* 11(1):145–163.
- Jensen MC, Ruback RS (1983) The market for corporate control: The scientific evidence. *J Financ Econ* 11(1):5–50.
- Jose PE (2013) *Doing Statistical Mediation and Moderation* in Methodology in the Social Sciences (Guilford Press, New York, NY).
- Kale P, Dyer JH, Singh H (2002) Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strateg Manag J* 23(8):747–767.
- Kim JY, Haleblian J, Finkelstein S (2011) When Firms Are Desperate to Grow via Acquisition: The Effect of Growth Patterns and Acquisition Experience on Acquisition Premiums. *Adm Sci Q* 56(1):26–60.
- King DR, Dalton DR, Daily CM, Covin JG (2004) Meta-analyses of post-acquisition performance: Indications of unidentified moderators. *Strateg Manag J* 25(2):187–200.
- Larsson R, Finkelstein S (1999) Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: A case survey of synergy realization. *Organ Sci* 10(1):1–26.
- Louis H (2005) Acquirers' abnormal returns and the non-Big 4 auditor clientele effect. *J Account Econ* 40(1):75–99.
- Loyeung A (2018) The role of boutique financial advisors in mergers and acquisitions. *Aust J Manag* 44(2):212–247.
- Lucas C, Nielsen RA, Roberts ME, Stewart BM, Storer A, Tingley D (2017) Computer-Assisted Text Analysis for Comparative Politics. *Polit Anal* 23(2):254–277.
- MacKinnon DP (2008) Introduction to Statistical Mediation Analysis (Lawrence Erlbaum Associates, New York, NY).
- McDonald ML, Westphal JD, Graebner ME (2008) What do they know? The effects of outside director acquisition experience on firm acquisition performance. *Strateg Manag J* 29(11):1155–1177.
- Menz M, Barnbeck F (2017) Determinants and consequences of corporate development and strategy function size. *Strateg Org* 15(4):481–503.
- Mulherin JH, Netter JM, Poulsen AB (2017) The Evidence on Mergers and Acquisitions: A Historical and Modern Report. Hermalin BE, Weisbach MS (Eds.) *The Handbook of the Economics of Corporate Governance* (North-Holland, Amsterdam, NL), 235–290.
- Preacher KJ, Hayes AF (2004) SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behav Res Methods Instrum Comput* 36(4):717–31.
- Preacher KJ, Hayes AF (2008) Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behav Res Methods* 40(3):879–91.
- Rabe-Hesketh S, Skrondal A, Pickles A (2004) Generalized multilevel structural equation modeling. *Psychometrika* 69(2):167–190.
- Rabier MR (2017) Acquisition Motives and the Distribution of Acquisition Performance. *Strateg Manag J* 38(13):2666–2681.
- Raghavendra Rau P (2000) Investment bank market share, contingent fee payments, and the performance of acquiring firms. *J Financ Econ* 56(2):293–324.
- Reeves L, Weisberg RW (1994) The role of content and abstract information in analogical transfer. *Psychol Bull* 115(3):381–400.

- Roberts M, Stewart B, Tingley D (2016a) Navigating the Local Modes of Big Data: The Case of Topic Models. Alvarez R (Ed.) *Computational Social Science: Discovery and Prediction* in Analytical Methods for Social Research (Cambridge University Press, Cambridge, MA), 51–97.
- Roberts ME, Stewart BM, Airoldi EM (2016b) A Model of Text for Experimentation in the Social Sciences. *J Am Stat Assoc* 111(515):988–1003.
- Roberts ME, Stewart BM, Tingley D (2019) stm: An R Package for Structural Topic Models. *J Stat Softw* 91(2):1–40.
- Roberts ME, Stewart BM, Tingley D, Lucas C, Leder-Luis J, Gadarian SK, Albertson B, Rand DG (2014) Structural Topic Models for Open-Ended Survey Responses. *Am J Polit Sci* 58(4):1064–1082.
- Servaes H, Zenner M (1996) The Role of Investment Banks in Acquisitions. Rev Financ Stud 9(3):787-815.
- Shook CL, Ketchen DJ, Hult GTM, Kacmar KM (2004) An assessment of the use of structural equation modeling in strategic management research. *Strateg Manag J* 25(4):397–404.
- Steigenberger N (2017) The Challenge of Integration: A Review of the M&A Integration Literature. *Int J Manag Rev* 19(4):408–431.
- Trichterborn A, Zu Knyphausen-Aufseß D, Schweizer L (2016) How to improve acquisition performance: The role of a dedicated M&A function, M&A learning process, and M&A capability. *Strateg Manag J* 37(4):763–773.
- Very P, Schweiger DM (2001) The acquisition process as a learning process: Evidence from a study of critical problems and solutions in domestic and cross-border deals. *J World Bus* 36(1):11–31.
- Very P (2011) Acquisition performance and the "Quest for the Holy Grail". Scand J Manag 27(4):434-437.
- Voss JF, Post TA (1988) On the solving of ill-structured problems. Chi MTH, Glaser R, Farr MJ (Eds.) *The Nature of Expertise* (Lawrence Erlbaum, Hillsdale, NJ), 261–285.
- Zhao X, Lynch JG, Chen Q (2010) Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *J Consumer Res* 37(2):197–206.
- Zollo M, Singh H (2004) Deliberate learning in corporate acquisitions: post-acquisition strategies and integration capability in U.S. bank mergers. *Strateg Manag J* 25(13):1233–1256.