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Schmitz, Alexander | Sievers, Sönke

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

Alexander Schmitz[a], Soenke Sievers[a]

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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.

[a] Paderborn University, Warburger Str. 100, 33098 Paderborn, Germany

✉ alexander.schmitz@wiwi.uni-paderborn.de (corresponding author), soenke.sievers@wiwi.uni-paderborn.de

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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

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1 Introduction

Mergers and acquisitions (M&As) are very complex tasks for firms (e.g., Haspeslagh and Jemison, 1991; Jemison and Sitkin, 1986; Larsson and Finkelstein, 1999). Thus, the capabilities required to perform an acquisition successfully oftentimes exceed the abilities of acquirers (Gordon et al., 2019), and acquirers employ various M&A advisors to support their M&A activities. However, it is also well established that M&A capabilities differ across firms. For instance, small firms performing few acquisitions might establish only a small M&A team at the headquarters, while large firms might employ M&A teams at the headquarters and/or the business unit level. Therefore, the role of M&A advisors needs to be analyzed in the context of the organizational structure for the respective firm. Bearing this in mind, this paper asks to what extend are M&A advisors associated with M&A success in consideration of a firm's internal organizational setup of her M&A function?

In general, extant research on M&A advisors has shown that acquiring firms often employ external M&A advisors to assist them in their M&A process (e.g., Golubov et al., 2012; Gordon et al., 2019; Jemison and Sitkin, 1986; Very and Schweiger, 2001). However, most of this research is limited to certain types of advisors, especially financial advisors including investment banks. Research on other M&A advisors, such as legal advisors and strategy consultants is scarce and underexplored due to data limitations (Gordon et al., 2019). This study aims to address this void, while controlling for the firms internal M&A organizational structure. Taking the internal M&A setup of acquirers into account is important, given that it is established that a dedicated M&A function is beneficial for M&A success. For instance, Menz and Barnbeck (2017) presume that a corporate development and strategy function contributes to a firms overall success through superior capabilities. They find that the size of a corporate development and strategy function positively correlates to firm's sales growth as well as future profitability of active acquirers. Similarly, Trichterborn et al. (2016) find that the M&A function bundles and structures the firm's M&A knowledge, thereby building an M&A capability, and ultimately impacting M&A success positively. In sum, current research supports the idea that a domain specific function, such as an M&A function builds up domain specific capabilities, and directly and indirectly enhances M&A success. However, how should an M&A function be setup within a firm's organization? While Trichterborn et al. (2016) acknowledge that an M&A function can be present at the corporate or business unit level, and may be composed of a dedicated team or several experts scattered

throughout the organization, they choose to not consider these differences. Very recently, Aktas et al. (2020) took a first step and considered team demographics but not M&A advisors and the organizational setup. To overcome the above mentioned limitations regarding M&A advisors and to shed light on these important issues, this study collects survey data from M&A experts around the globe regarding financial advisors, legal advisors (including tax and auditing), and most importantly strategy consultants. In addition, the survey also covers the organizational setup of firms' M&A functions to account for the potential effects of the M&A function on both M&A success and M&A advisors.

Based on this unique dataset, we employ the state of the art path modeling technique generalized structural equation modeling (GSEM) (Rabe-Hesketh et al., 2004) to investigate the direct, indirect, and total (sum of direct and indirect) effects of various M&A advisors and their employment pattern (i.e., sometimes hired, hired only for complex acquisitions, or always hired) on M&A success. In addition, given that advisor employment will be likely influenced by the firm's internal M&A capabilities (Golubov et al., 2012), our survey data allows us to incorporate and control for the firm specific setup of her M&A function, e.g., whether the firm has a headquarters (HQ) M&A team, HQ M&A experts, business unit (BU) M&A teams, BU M&A experts, or regional M&A experts.

While the results section includes a detailed discussion of the direct and indirect effects, here we summarize the key findings based on the total effects. Regarding M&A advisor employment, we draw three main conclusions. First, and most importantly, strategy consultants provide the greatest increase in M&A success across all considered M&A advisors. Specifically, they increase M&A success by up to 3.7%, which exceeds the benefits from financial advisors by more than one percentage point. This statistically significant result is also economically large given that it must be put into the context of significant transaction values, which easily reach millions and billions of dollars. Second, if employed regularly (i.e., sometimes or always), M&A advisors increase M&A success by 0.4% to 3.7%. These findings are consistent with benefits from M&A advisors, such as reduced process costs, improved target identification, and enhanced negotiation skills (e.g., Bowers and Miller, 1990; Golubov et al., 2012; Loyeung, 2018). In addition, the results reflect that M&A advisors have to be regularly employed to ensure a potential knowledge transfer over time to the advised firm's (Hinds et al., 2001). Third, M&A advisor employment is generally associated with a negative impact on M&A success in complex acquisitions. This conclusion holds true across all considered cases, although the impact varies from -5.3% for legal/tax/audit M&A advisors to only -0.7% regarding strategy consultants.

This finding is in line with Servaes and Zenner (1996), who argue that M&A advisors can improve M&A success but fail to do so in some acquisitions due to specific deal characteristics, such as deal complexity. These findings emerge in the context of our comprehensive control framework, in which we consider the different functional setups of firms' internal M&A organization.

Our results contribute to the literature in multiple ways. First and most importantly, we extend the scarce literature on M&A advisors (Gordon et al., 2019) by comprehensively analyzing all main M&A advisor types in one study. This allows us to shed light on their differences regarding their impact on perceived M&A success. Second, this study is—to the best of our knowledge—the first that explores the role of strategy consultants regarding M&A success. Third, our unique data allows us to control for the organizational setup of the M&A function. Thus, we extend and further connect fragmented research on internal teams and external advisors (e.g., Aktas et al., 2020; Golubov et al., 2012; Haleblian et al., 2009; Kale et al., 2002; Menz and Barnbeck, 2017; Trichterborn et al., 2016).

We deliberately choose to situate our study at the intersection of typically disjoint subject areas, such as strategy, finance, and organization. This brings with it the challenge that the reader would have to show a certain openness to this approach, as the study at hand leaves the path of a narrow subject area. However, all of the above mentioned research areas offer partial explanations for the success of M&A transactions. Thus, a holistic approach seems appropriate.

The remainder of this paper is structured as follows. The next section provides the related theory and hypotheses (section 2). In section 3, we describe the data and methodology. Thereafter, in section 4, we present our empirical analyses and results. The final section provides concluding remarks and discusses limitations as well as paths for future research (section 5).

2 Theory and hypotheses

2.1 M&A process standardization and M&A success

Figure 1 visualizes the hypotheses that we formulate in this section. The attentive reader immediately notices that we do not explicitly articulate a hypothesis regarding the direct effect of M&A process standardization

onto M&A success given that this positive direct effect has already been well established as outlined below. Instead, we leverage this finding and investigate the indirect effects of M&A advisors on M&A success mediated by M&A process standardization, which have not been explored so far.

[Figure 1 about here.]

Since the late-1990s, multiple papers studied process standardization in general, and identified several related advantages, such as increased efficiency, enhanced performance, improved transparency, better controllability, improved measurability, simpler comparability, and potential cost savings (e.g., Davenport, 2005; Hammer and Stanton, 1999; Münstermann et al., 2010; Swaminathan, 2001; Wullenweber et al., 2008). With regard to M&As, scholars frequently state that acquisition success benefits from M&A process standardization and suffers from its absence (e.g., Ashkenas et al., 1998; Jemison and Sitkin, 1986; Tetenbaum, 1999). Extant literature argues that the lack of sufficiently standardized M&A processes typically stems from the fact that firms do not conduct acquisitions as frequently as required to develop standardized M&A process patterns (e.g., Ashkenas et al., 1998; Jemison and Sitkin, 1986; Tetenbaum, 1999). Recently, Schmitz and Sievers (2020) complemented the aforementioned evidence by conducting a survey study with M&A practitioners. They find that M&A process standardization increases M&A success by ceteris paribus more than eight percent. Similarly, Trichterborn et al. (2016) demonstrate that an M&A capability, which in parts comprises a "well-defined process for executing acquisitions" (Trichterborn et al., 2016, Appendix S1), impacts M&A success positively. In sum, the positive effects of process standardization in general and with regard to M&As in particular are well documented. Thus, no separate hypotheses is necessary, and we expect our findings to confirm prior research.

2.2 M&A advisors and M&A success

M&As are very complex tasks for firms (e.g., Haspeslagh and Jemison, 1991; Jemison and Sitkin, 1986; Larsson and Finkelstein, 1999). Thus, the capabilities required to perform an acquisition successfully oftentimes exceed the abilities of acquirers (Gordon et al., 2019). Therefore, acquiring firms frequently employ external M&A advisors to assist them throughout their M&A process (e.g., Golubov et al., 2012; Gordon et al., 2019; Jemison and Sitkin, 1986; Very and Schweiger, 2001). For instance, Very and Schweiger

(2001) study typical challenges and potential solutions concerning the M&A process and find that M&A advisors may be an integral part of those solutions. With regard to how frequently M&A advisors are employed, Golubov et al. (2012) observe in their sample of 4,803 transactions that in approximately 92% of all the cases a financial advisor was present. Moreover, Golubov et al. (2012) state that only 15% of all global transactions in terms of transaction value for 2007 were not accompanied by a financial advisor. Therefore, M&A advisors are arguably an important factor regarding the M&A process. However, why may M&A advisors affect M&A success positively?

Without doubt, M&A advisors are experts in their domain. According to the well-established body of behavioral science literature on expertise, experts, such as M&A advisors have the problem solving skills that are required to successfully tackle complex tasks, such as acquisitions. Among others, behavioral science scholars emphasize four key advantages that experts bring to the table. First, experts have an excellent domain knowledge and domain-specific skills, which are built through consistent deliberate learning and training (e.g., Chi and Glaser, 1988; Ericsson and Lehmann, 1996; Ericsson and Charness, 1994). Second, experts organize their knowledge of past experiences well, thereby developing general abstracted solution patterns. Consequently, experts can apply proven methods and analogies from experience to new problems within the same domain (e.g., Anderson et al., 1997; Chi and Glaser, 1988; Day and Lord, 1992; Reeves and Weisberg, 1994; Ross and Kennedy, 1990; Sternberg, 1997). Furthermore, Voss and Post (1988) show that experts utilize their organized and extensive knowledge to arrive at superior solutions in problems with multiple solution options (i.e., ill-structured problems), such as acquisitions. Voss and Post (1988) further elaborate that superior solutions can be achieved by experts despite weak approaches and that these solutions further improve if the experts are aware of a comparable class of problems and solutions. Third, experts are faster and make fewer mistakes (e.g., Chi and Glaser, 1988; Day and Lord, 1992). Fourth, experts have a deeper understanding of the task at hand, can process more information, and recognize further implications (e.g., Chi and Glaser, 1988; Day and Lord, 1992). In sum, the aforementioned advantages enable experts to generate better solutions for a given task. For instance, these skills allow M&A advisors to resolve the challenges of a complex acquisition, such as domain specific knowledge and solutions regarding legal matters, a speedy and faultless working pace to comply with tight deadlines, and the ability to handle a significant information overload during due diligences. Please refer to Ericsson et al. (2006) for an excellent review of the research on expertise and expert performance.

In contrast to the conclusions of the behavioral sciences on expert performance in complex tasks, extant research on M&A advisors appears rather ambiguous regarding the question whether M&A advisors affect M&A success positively. As outlined in detail below, some M&A scholars argue that advisors may decrease M&A success, while others find that M&A advisors may increase M&A success. Further note that research on M&A advisors' impact on M&A success is relatively scarce and limited to mostly financial advisors (i.e., investment banks (IBs)) investigating cumulative abnormal announcement returns (CARs), except for few studies that consider auditors and legal advisors (Gordon et al., 2019). More precisely, M&A advisor research frequently focuses on the performance comparison of different IB archetypes, on completion rates, and advisor fee structures (Gordon et al., 2019).

Negative impact of M&A advisors on M&A success

Turning to the literature that finds a negative impact of financial M&A advisors on M&A success, Hunter and Jagtiani (2003) investigate a sample of public mergers and find that acquirer CARs are reduced when top-tier IBs are employed. Hunter and Jagtiani (2003) argue that this effect is caused by premiums being too high for top-tier banks. Similarly, Ismail (2010) discovers that top-tier financial advisors generate negative CARs, which amount to a loss of more than USD 42 billion for their advisees in public deals. More specifically, Hayward (2003) finds that acquisitions that are financial advisor assisted generate CARs, which are approximately one percentage point less, ranging from -2.12% to -1.83%, compared to those acquisitions that employ no financial advisor. Turning to non-financial M&A advisors, Jemison and Sitkin (1986) generally state that M&A advisors might not focus on actual value creation for advised acquirers, which in turn might impede M&A success. Louis (2005) investigates the impact of auditors as M&A advisors on acquirer's CARs in mergers and finds that the average three-day CARs for "Big 4" (i.e., Deloitte, Ernst & Young, KPMG, and PricewaterhouseCoopers) advised transactions are -0.59%, whereas non-Big 4 advised transactions yield CARs of 2.52%. With regard to legal M&A advisors, Krishnan and Laux (2004) investigate short and long run returns (i.e., CARs around announcement and up to 750 days past offer) of transactions, thereby finding that no law firm can be related to consistently strong CARs but large market-share law-firms are associated with lowered CARs in the short and long run. Unfortunately, extant research on legal M&A advisors does not add more figures to these findings (e.g., Agrawal et al., 2013; Chatain and Meyer-Doyle, 2017; Westbrock et al., 2018). Overall, few studies quantify the negative effect of

M&A advisors on M&A success. Thus far, only Hayward (2003) confirms a negative effect of two percent by financial M&A advisors on CARs, and, similarly, Louis (2005) documents decreased CARs of -0.59% for "Big 4" advised mergers.

No impact of M&A advisors on M&A success

The ambiguity of an M&A advisor effect on M&A success is also highlighted by studies that do not find any such effect. For instance, Servaes and Zenner (1996) compare acquisitions that involve an IB to those that do not involve an IB. While they find that IB advised deals show a reduction in CARs, they argue that this finding is not caused by the IB but stems from the deal characteristics, such as deal complexity. Overall, Servaes and Zenner (1996) conclude that neither a top-tier nor any other IB affects abnormal announcement returns. Similarly, Loyeung (2018) present evidence that financial boutique advisors do not increase CARs for acquirers in Australian acquisitions.

Positive impact of M&A advisors on M&A success

However, multiple studies find a positive impact of M&A advisors on M&A success. Bowers and Miller (1990) formulate the better merger hypothesis, which states that M&A advisors reduce the cost of target search processes and improve the chances to find a more synergistic target, thereby improving M&A success. Specifically, Bowers and Miller (1990) find support for their better merger hypothesis by comparing deals advised by top-tier IBs to deals without such advisors. Similarly, Raghavendra Rau (2000) phrase the superior deal hypothesis, which states that top-tier IBs are able to generate higher CARs. As predicted, Raghavendra Rau (2000) finds that in mergers only top-tier IBs increase CARs by approximate three percent. However, in tender offers, Raghavendra Rau (2000) recognize that IBs in general are able to generate significant positive CARs of up to one percent. In line with Raghavendra Rau (2000), Golubov et al. (2012) support the idea that top-tier IBs improve acquirer CARs by approximately one percent in public transactions. Golubov et al. (2012) argue that such IBs are capable of identifying more synergistic targets and have better negotiation skills than non-top-tier IB M&A advisors. Loyeung (2018) follows Golubov et al.'s (2012) reasoning with regard to her finding that boutique IBs increase the three-year post-acquisition M&A success by more than

two percent in Australian acquisitions. Moreover, Bao and Edmans (2011) investigate IB M&A advisor fixed effects for three-day CARs and find that IBs generate average CARs of 0.72%, significantly varying depending on IB fixed effects. Apart from evidence on financial advisors, Tetenbaum (1999) generally suggests that firms should work with M&A advisors to compensate a lack of M&A process standardization concerning integration planning, thereby ensuring M&A success. Another positive effect of M&A advisors in general is documented by Kim et al. (2011), who observe that experienced M&A advisors may prevent desperate acquirers from overpaying, thereby ensuring M&A success. Considering outside directors as M&A advisors, McDonald et al. (2008) estimate a significant positive M&A advisor effect on CARs of 1.5 to 3.9%, depending on the advisor experience with regard to the acquisition's industry and type. Regarding auditors as M&A advisors, Cai et al. (2016) find that deals with a common auditor (i.e., the same auditor to the acquirer and the target) outperform non-common auditor deals but auditor advisors in general may already enhance CARs by almost two percent. Similar effects are found by Dhaliwal et al. (2016) and Chahine et al. (2018). Overall, the presented papers document a positive effect of various M&A advisors on M&A success between one to four percent, conditional on advisor type, timeline, and deal characteristics.

Taking the expertise literature into account and weighing the available academic evidence on M&A advisors' impact on M&A success thus far, we hypothesize that M&A advisor are rather beneficial to the overall M&A success as follows:

Hypothesis 1 (H1). *M&A advisors have a positive impact on M&A success.*

While this hypothesis refers to M&A advisors in general, we consider four cases in our model, which allow us to differentiate between the effects of M&A advisors in general, financial M&A advisors, legal/tax/audit M&A advisors, and strategy consultant M&A advisors. Please see sections 3.5 and 3.6 for further details. Please note that the aforementioned and the following hypotheses are all stated in alternative forms.

The previously presented arguments focus on whether M&A advisors increase M&A success. The natural follow-on question is how do M&A advisors increase M&A success? Scholars frequently state that M&A advisors identify more synergistic targets and negotiate better transaction prices (e.g., Golubov et al., 2012; Kim et al., 2011; Loyeung, 2018; Raghavendra Rau, 2000). More generally, Hinds et al. (2001) find that experts transfer their knowledge and advanced concepts, thereby helping non-experts to copy approaches,

to develop skills for themselves, and to apply their knowledge in comparable situations. While Hinds et al. (2001) stress that this process is rather ineffective, their finding implies that acquirers can learn from M&A advisors over time, and thus, develop their own M&A skills, such as standards for subsequent acquisitions. In contrast, Jemison and Sitkin (1986) argue that M&A advisors speed up the acquisition process, thereby limiting an acquirer's learning opportunities.

Despite limited evidence on how M&A advisors increase M&A success, we perceive the argument of Hinds et al. (2001) as particularly persuasive and hypothesize a positive effect of M&A advisor employment on acquirers' internal M&A processes as follows:

Hypothesis 2 (H2). *M&A advisors have a positive impact on the development of M&A process standardization.*

Given the established positive effect of M&A process standardization on M&A success, we further investigate a mediation effect for M&A advisors as follows:

Hypothesis 3 (H3). *M&A process standardization mediates the positive relationship between M&A advisors and M&A success.*

2.3 M&A functions and M&A success: A comprehensive control framework

Firms typically do not rely exclusively on external M&A advisors to conquer the complexity of acquisitions. Instead, companies may also build up the required acquisition expertise internally to become successful acquirers. Haspeslagh and Jemison (1991), Kale et al. (2002), and Trichterborn et al. (2016) argue that a dedicated domain function (e.g., an M&A function) helps to build and leverage domain specific expertise, improves related learning processes, and generate a domain capability, which for acquisitions is defined "to comprise the knowledge, skills, systems, structures, and processes that a firm can draw upon when performing acquisitions" (Laamanen and Keil, 2008, p. 664). Consequently, domain functions are closely related to domain experts. Combining the insights that experts' performance is superior and that domain specific functions consist of experts, one may argue that a domain specific function can increase domain specific success (e.g., M&A success).

In the context of alliances, Kale et al. (2002) show that a firm's alliance function pools alliance specific capabilities, thereby increasing alliance success both in the short and long run. Specifically, Kale et al. (2002) find that an alliance function increases CARs by more than one percentage point. Similarly, Menz and Barnbeck (2017) presume that a corporate development and strategy function contributes to a firms overall success through superior capabilities and find that the size of a corporate development and strategy function positively correlates to firm's sales growth as well as future profitability of active acquirers. While a corporate development and strategy function may also perform M&A related tasks, Menz and Barnbeck (2017) acknowledge that very active acquirers typically create a separate M&A function to focus on M&A related tasks. Trichterborn et al. (2016) were the first to define and in-depth investigate the M&A function. In an analogous manner to the previous examples, Trichterborn et al. (2016) reason that the M&A function bundles and structures the firm's M&A knowledge and learning, thereby building an M&A capability, and ultimately impacting M&A success positively. Testing their hypotheses on a sample of German firms, Trichterborn et al. (2016) find that an M&A function has a positive effect on building an M&A capability, which in turn fully mediates the M&A function's positive effect on M&A success. Surprisingly, they do not find a direct effect of the M&A function's expertise on M&A success. In summary, current research supports the hypothesis that a domain specific function, such as an M&A function builds up domain specific capabilities and enhances domain specific success both directly and indirectly. However, how should an M&A function be setup within a firm's organization?

While Trichterborn et al. (2016) acknowledges that an M&A function can be present at the corporate or BU level, and may be composed of a dedicated team or several experts scattered throughout the organization, they choose to not consider these differences. In the context of alliances, Kale et al. (2002) stress the challenge of how to optimally setup an alliance function within a firm's organization but do not investigate different setups and their implications. Similarly, Menz and Barnbeck (2017) recognize potential differences in functional setups of the corporate development and strategy function but decide to leave an investigation to future research.

Extant literature on organizational design provides a broader view on this matter and agrees that functional setups vary across firms (Menz et al., 2015). For instance, Collis et al. (2007) and Menz and Barnbeck (2017) outline that within a divisionalized firm strategic functions, such as an M&A function may be located within divisions, while rather centralized firms keep these functions with the HQ. Acknowledging different

functional setups, Tata and Prasad (2004) conclude that these differences can influence teams and their performance. Thus, the functional setup of the M&A function may also affect M&A success for the better or worse.

Arguments for a HQ M&A function are given by several authors who underline that the corporate HQ have the duty not only to control, report, and provide shared services but also to create value through strategy and entrepreneurship, such as acquisitions (e.g., Birkinshaw et al., 2006; Chandler, 1991; Chandler, 1962; Collis et al., 2007; Goold and Campbell, 2002; Menz and Barnbeck, 2017; Menz et al., 2015). Moreover, extant research finds that an M&A function as a strategic unit is most effective at the HQ, where it is given C-level attention (e.g., Goold and Campbell, 2002; Kaplan and Norton, 2005). In contrast, Birkinshaw et al. (2006) argue that BUs themselves are responsible to formulate and implement a competitive strategy, thereby outperforming its respective competitors. Consequently, Birkinshaw et al. (2006) note that BUs typically hold their own strategic planners. Thus, an M&A function may rather be located at the BU level, thereby contributing to BU specific goals. Combining both positions, Paroutis and Pettigrew (2016) find that interactions and actions of both HQ and BUs strategy teams are key. Paroutis and Pettigrew (2016) emphasize that in complex organizations both setups interact to develop and maintain central and decentral knowledge. However, negative performance impacts may arise from failing interactions (Paroutis and Pettigrew, 2016).

Finally, an M&A function may also be regionally setup. Thus far, this idea is only considered by Alfoldi et al. (2012), who investigate regional management mandates and find that most HQ functions may be distributed to regional levels. However, Alfoldi et al. (2012) raise concerns to what extent strategic change can be driven by regions and further note that regions may lack acceptance or top management visibility.

Considering the current research evidence, we summarize that an M&A function may comprise teams and experts at the HQ, BU, and regional (REG) level. Furthermore, we learn from recent studies that the M&A function in general and its various functional setups in particular affect M&A success (e.g., Aktas et al., 2020; 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. Refer to section 3.5 and figure 2 for details and a depiction, respectively.

3 Data and methodology

This study is a companion paper to Schmitz and Sievers (2020). While this paper focuses on mostly different variables and completely different methodologies compared to its companion paper, it is based on the same survey. Consequently, both studies rely on the same survey design, the same data gathering process, mostly the same descriptive statistics, and the same sample representativeness characteristics. Therefore, we decide to reprint the following paragraphs on the survey design, the data gathering process, the descriptive statistics, and the sample representativeness to provide a convenient reading experience of a self-contained document. To account for minor differences in the data, we adapt numbers and text details in the reprinted paragraphs where necessary to the underlying sample of this study[1]. Additionally, we indicate whether (parts of) tables are reprinted and highlight specific adjustments therein. Overall, we hope that the reader of this paper perceives our approach as appropriate and convenient for their reading experience.

3.1 Survey design

Our survey focuses on three areas: M&A processes (incl. M&A advisors), M&A organization (incl. setup of the M&A function), and M&A success. Most of these variables cannot be observed in archival databases. Thus, we surveyed corporate acquirers directly for primary data via an online survey. Please refer to online appendix A for the questionnaire's front page and a list of questions and corresponding variables that are used to produce this study's findings.

In designing the survey, we followed best practices from other research fields (e.g., psychology and marketing) and employed best practices from well-known survey articles within the field of finance and M&A (e.g., Bodnar et al., 2019; Capron, 1999; Capron et al., 1998; Gompers et al., 2016; Graham and Harvey, 2001; Heimeriks et al., 2012; Jagannathan et al., 2016; Trichterborn et al., 2016; Zaheer et al., 2011; Zollo and Singh, 2004). Our survey was designed in five steps: First, we carefully reviewed the existing literature on the aforementioned topics to draft academically relevant survey questions. Second, we asked 30 M&A professionals[2] from corporations, strategy consultancies, and private equity firms to comment on each question's relevance from a practitioner's perspective. Third, we developed a test survey from the collected

[1] Journal specific requirements also cause minor deviations from the companion paper's original text.
[2] We thank selected professionals on the title page, while others required anonymity.

practitioners' input. Fourth, we circulated the test survey to a group of nine M&A practitioners and survey experts for feedback. Finally, we collected their feedback in one-on-one sessions and subsequently revised the questionnaire. Throughout the process, we made changes to the overall survey design, its format, its duration, the order of the questions, and their wording.

All adjustments were made to address the following potential survey weaknesses: Low response rates, potential response biases, ambiguity of the questions, and the choice of perceived best answers (Graham and Harvey, 2001; Jagannathan et al., 2016). For instance, by running multiple survey pretests, we attempted to reduce question ambiguity and interpretation issues. By ensuring its relevance to practitioners, we attempted to create an attractive survey that would be completed by its recipients despite its high level of detail.

To increase the willingness to participate, to collect frank answers and to comply with recent European data protection laws, we designed the survey to be anonymous. Being unable to identify survey respondents and link their answers to archival data (e.g., Compustat, Orbis, SDC Platinum), we included various questions regarding firm characteristics and M&A activity. Finally, we collected the participants' demographics to learn and control for who participated in our survey.

3.2 Data gathering process

To obtain our data, we did not reach out to the participants of an established network or panel. Instead, we searched the internet for contacts in the M&A domain. In total, we performed more than 150,000 search operations on company websites, general search engines, and professional networks in 2019. All search strings were created by combining three dimensions: A country name, a corporate function, and a position title. We included all countries worldwide, 33 corporate functions[3], and 18 position titles[4]. For instance, one search string was 'united states + m&a + head'. To ensure the best possible search results, corporate functions and position titles were crosschecked via belief audits with industry and regional experts. To be precise, we asked each expert to compile a list of corporate functions and position titles associated with M&A based

[3]Included corporate functions were 'm&a', 'merger', 'mergers', 'acquisition', 'acquisitions', 'takeover', 'takeovers', 'deal', 'deals', 'transaction', 'transactions', 'acquirer', 'acquirers', 'integration', 'integrations', 'corporate development', 'business development', 'strategic development','corporate finance', 'strategy', 'corporate strategy', 'finance strategy', 'business strategy', 'transformation', 'transformations', 'business transformation', 'strategic planning', 'strategic partnerships', 'strategic alliances', 'investment', 'investments', 'deal advisory', 'inorganic growth'.

[4]Included position titles were 'head', 'chief', 'leader', 'lead', 'executive', 'partner', 'officer', 'director', 'vice president', 'vp', 'svp', 'avp', 'senior manager', 'advisor', 'principal', 'treasury', 'specialist', 'cfo'.

on their experience. Our search operations were only performed in English to identify English-speaking participants, as our questionnaire was only available in English.

From December 19, 2019 until February 28, 2020, we invited 292,559 corporate M&A experts via personalized e-mails to participate in our survey. Due to data protection laws, no reminder was sent. The survey was closed on March 13, 2020. Overall, 938 participants opened the survey. A total of 191 participants started the survey, and 137 participants completed it. Unfortunately, we had to remove 20 participants because either they skipped too many questions (no question was mandatory) or their input was implausible (e.g., participants indicated annual revenues of USD 100 million and yearly acquisitions of USD 100 million). Our final sample comprises 117 participants who spent an average of 27 minutes on the survey, which is 10% longer than the pretests suggested was necessary. Thus, we can assume that the considered participants took the survey seriously and provided well-thought answers. The average respondent is a 40–49-year-old male who has both a master's degree and a 55% chance of holding a degree in finance. Moreover, the average participant is a "director" or "head of" who is positioned at his firm's HQ. On average, he has been working in M&A for over 11 years and has completed 20 acquisitions throughout his career, eight (40%) of which have been conducted at his current firm. Overall, we conclude that the survey participants are very well educated and highly knowledgeable M&A experts who hold a decent M&A track record and are fit to answer our questionnaire. This conclusion is supported by some of the respondents, such as the DAX 30[5] heads of M&A, who revealed their identity and reached out to us to obtain the survey results.

Our response rate of 0.04% is significantly lower compared to that of other survey studies, which ranges from 3% to 50% and averages approximately 15% (e.g., Bodnar et al., 2019; Capron, 1999; Capron et al., 1998; Gompers et al., 2016; Graham and Harvey, 2001; Heimeriks et al., 2012; Jagannathan et al., 2016; Trichterborn et al., 2016; Zaheer et al., 2011; Zollo and Singh, 2004). Our response rate was influenced by multiple factors. First and most importantly, the majority of the recipients (99.7%) did not open the survey, perhaps because the content might not have been relevant for them, because they might have had to spend their scarce time on more urgent topics, because they did not receive a reminder from us due to data protection laws, or because they classified our e-mail as scam. Survey studies that achieve a significantly higher repose rate typically do not face this challenge because they rely on established personal connections

[5]The DAX 30 stock index includes the 30 largest and most liquid German companies in terms of market capitalization and order book turnover. As of September 2020, it includes companies, such as SAP, BMW, or Deutsche Telekom. According to Deutsche Boerse group, the stocks in the DAX 30 represent 80% of the market capitalization listed in Germany.

or panel networks (e.g., Bodnar et al., 2019; Capron, 1999; Capron et al., 1998; Gompers et al., 2016; Graham and Harvey, 2001; Heimeriks et al., 2012). Second, only 117 of the 938 recipients who opened the survey completed it in full, perhaps because of its length and its high level of detail. Nevertheless, the latter factor ensured that only relevant participants with detailed M&A know-how regarding their firm participated in our survey. In addition to these factors, we can only speculate that the year-end holiday breaks and the outbreak of the COVID-19 pandemic further reduced our response rate.

While one might perceive this study's low response rate as problematic, one should note that the absolute number of 117 responses in our final sample is in line with other top survey studies in the field, thereby allowing for meaningful inferences. For instance, Trichterborn et al. (2016) rely on a sample of 124 firms; Aktas et al. (2020) use evidence from 65 firms; Bodnar et al. (2019) base their analyses on 67 to 342 observations; Zollo and Meier (2008) test their M&A performance concept with data from 146 acquisitions; Jagannathan et al. (2016) utilize survey data from 127 companies; and, Heimeriks et al. (2012) test their hypotheses with survey data from 85 acquirers.

3.3 Descriptive statistics

Table 1 reports the descriptive statistics for the firms of the corporate M&A experts who responded to our survey and that we use in our subsequent analyses. Table 1, panel A summarizes key firm characteristics, i.e., sales in USD billion, number of employees, firm age since incorporation and public-private status, all of which refer to the 2018 fiscal year. Panels B and C in table 1 outline the regional and industry distribution of respondent firms, respectively. Furthermore, table 4 summarizes key facts regarding the M&A characteristics of the respondents' firms that the focus is placed on in this study.

[Table 1 about here.]

Our sample comprises 57% large firms (i.e., firms with sales of over one billion USD in 2018) with little regional differences but significant variation depending on a firm's listing status. As expected, most of the public firms are large (71%), whereas significantly fewer private firms are large (36%). With regard to the number of employees and firm age, a similar pattern is observed. We want to emphasize that only 51%

of our sample consists of public firms, making it a very balanced sample in terms of private versus public companies. Thus, our sample allows us to draw conclusions about the entire M&A landscape and avoids the typical bias towards publicly traded firms in M&A research (Netter et al., 2011).

With respect to the regional distribution, 26% of our sample firms are headquartered in North America, 56% are headquartered in Europe, and 11% are headquartered in Asia Pacific. The remaining seven percent are headquartered in the countries of Angola, Argentina, Brazil, Chile, and South Africa. We combine these firms into the region labeled Other. Overall, we recognize that Western firms comprise 82% of our sample, which is comparable to other global survey studies that have launched from the United States (US) or Europe (e.g., Bodnar et al., 2019; Graham and Harvey, 2001; Heimeriks et al., 2012).

In terms of industry distribution, 34% of the firms are in the manufacturing sector, followed by 19% in the services/healthcare sector, 13% in the transportation/utilities/media sector, and 11% in the technology sector. The remaining 23% are either in the mining/basic materials sector (7%) or are diversified and/or do not fit in any of the previously mentioned categories (16%). Among those diversified firms, we include 11 financially oriented firms in their role as corporate acquirers and not as transaction advisors. We find that our industry distribution is very similar to comparable global survey studies (e.g., Bodnar et al., 2019; Graham and Harvey, 2001; Heimeriks et al., 2012).

Please refer to section 3.5 for details regarding the variables concerning the firm M&A characteristics (e.g., M&A advisors) focused on in this study.

The next section includes a thorough representativeness analysis of our sample, where we compare our sample against the Orbis and SDC Platinum databases (SDC from here on). The representativeness section discusses the details regarding commonly used M&A control variables such as horizontal (e.g., Capron, 1999; Kusewitt, 1985), diversifying (e.g., Gillan et al., 2000; Graham et al., 2002; Lamont and Anderson, 1985; Servaes, 1996), cross-border (e.g., Moeller and Schlingemann, 2005; Seth et al., 2002), and hostile acquisitions (Schwert, 2000), as well as target listing statuses (e.g., Capron and Shen, 2007; Chang, 1998) and payment types (e.g., Chang, 1998; Faccio and Masulis, 2005; Travlos, 1987).

3.4 Sample representativeness

Table 2 compares our sample of public and private firms to the global Orbis database by Bureau van Dijk. This comparison allows us to assess whether our sample characteristics are similar to the standard archival databases used in corporate finance and M&A research, thereby speaking to the generalizability of our findings (e.g., Bodnar et al., 2019; Gompers et al., 2016; Graham and Harvey, 2001; Jagannathan et al., 2016).

We favor the Orbis database over the Compustat database in our setting for two reasons. First, Orbis covers public and private firms simultaneously, and second, Orbis allows the exclusion of nonacquiring firms. Therefore, we include all the firms from Orbis that are active, have a reported revenue and employee number for the fiscal year ending December 2018 and have closed at least one acquisition as acquirer since January 2015. These restrictions result in an Orbis sample of 9,993 public and 20,113 private companies. We contrast these companies to the 60 public and 50 private firms from our global M&A survey sample, which provided the required data for comparison.

[Table 2 about here.]

The evidence in table 2, panel A suggests that our sample of public firms consists of significantly larger and longer-established (i.e., older) firms than those found in the archival databases. Approximately 72% of our sample consists of large public firms, whereas only 31% of Orbis consists of large public firms. Moreover, we find that approximately 59% of our public sample companies were incorporated more than 50 years ago versus 19% for Orbis. The difference in size is also reflected in an almost four times larger number of employees in our sample compared to that in the Orbis database.

The data in panel B of table 2 imply that our sample of private firms also consists of significantly larger and longer-established (i.e., older) firms than those found in the archival databases. For private firms, approximately 36% of our sample comprises large firms, whereas only six percent of Orbis consists of large private firms. Furthermore, we find that approximately 40% of the private firms in our sample are considered old versus 12% for Orbis. The deviation in size is also reflected in the number of employees, as our sample's private firms count, on average, 10 times as many employees than those in Orbis.

From the Orbis database comparison, we learn that our sample comprises significantly larger and longer-established public and private firms than those found in standard archival databases. While we acknowledge these deviations, we recall that our research questions center on M&A processes (i.e., M&A process standardization and M&A advisor employment) and M&A organization (i.e., setup of the M&A function), which are more likely to be observed from larger and longer-established companies. Thus, we are not concerned that our sample is tilted towards larger and more mature firms. For us, the key question is whether our sample firms are comparable in terms of their M&A activity characteristics.

Table 3 compares the key M&A characteristics of firms in our sample to the firms in the SDC database. This comparison enables us to evaluate whether our sample firms' M&A activities are similar to those in the standard archival databases used for M&A research. We utilize the SDC database by Refinitiv since it is the most widely used database for M&A-specific research and includes variables that are not included in other (financial) databases. Please refer to the works of Netter et al. (2011) and Bollaert and Delanghe (2015) for general insights into the SDC and potential alternative databases.

In this comparison, we include all the public and private firms from the global SDC database that have at least one closed acquisition[6] from 1980 to 2017. These restrictions result in an SDC sample of 643,207 firms overall, specifically, 206,639 public and 268,798 private companies. We contrast these companies to 115 firms (59 public and 48 private) from our global M&A survey sample, which provided the required data for comparison (10 firms are not classified as either public or private due to a missing identifier).

[Table 3 about here.]

The evidence in table 3, panel A suggests that our sample is broadly comparable to the SDC in terms of firms' M&A activity characteristics. Considering all the sample firms, we find that the average acquisition size in our sample is 100.1 million USD versus 108.8 million USD in the SDC. Furthermore, panel A indicates similar sample means for our sample and the SDC for the variables hostile acquisitions, private targets, cash only payments, and mixed payments. However, we find that our sample firms engage more frequently in cross-border acquisitions (46%) compared to SDC firms (29%). Our data also show some deviations in

[6]We include acquisitions of the following types: "Acq. of Certain Assets", "Acq. Major Interests, "Acq. Partial Interests", "Acq. of Assets", or "Acquisition".

terms of horizontal versus diversifying acquisitions. Our sample firms acquire horizontally in 49% of their acquisitions, while SDC sample firms do so in 27% of their acquisitions[7].

In table 3, panels B and C, we compare the public and private firms in our sample with the public and private firms in the SDC sample, respectively. Overall, the data imply that for both public and private firms, the findings of the overall comparison from panel A broadly hold with few exceptions, such as comparatively more cash only payments by firms in our sample (81%) compared to the firms in the SDC sample (52%) or some deviation regarding the average acquisition sizes of private acquirers (our sample: 84.3 million USD; SDC sample: 112.4 million USD). Thus, our sample of public and private firms seems to be generally comparable to the SDC sample of public and private firms in terms of their M&A activities, with a slight tendency towards more horizontal and more cross-border acquisitions.

In sum, we acknowledge that our sample comprises larger and longer-established firms that are very similar in their M&A activities compared to those in the standard archival databases. However, given that this article focuses on investigating M&A processes (i.e., M&A process standardization and M&A advisor employment) and M&A organization (i.e., setup of the M&A function), these sample characteristics are helpful to explore cross-sectional heterogeneity among current practices from well-established acquirers. Consequently, we expect our findings to be quite representative of the "as-is status" of existing real-world M&A procedures and to be especially helpful for small firms that acquire less frequently and thus, seek to improve their potentially underdeveloped M&A practices.

Finally, we investigate the self-selection, non-, and late-response biases in our sample. Given the very large number of contacted M&A experts (292,559), our sample can be considered as not selected. Furthermore, we find no differences when we compare the industries represented in our final sample with those in the initial sample. Thus, we deduce that our sample is not affected by a nonresponse bias. Following Armstrong and Overton (1977), we compare the early respondents (first half) to the late respondents (second half). We observe no significant differences in their answers, suggesting that nonresponse bias should not be a problem. In conclusion, the presented evidence implies that our sample should not be affected by the three aforementioned biases. Overall, we assume our sample to be well suited to investigate our research questions.

[7] In SDC, we model horizontal acquisitions by comparing acquirer's and target's primary SIC codes (Aktas et al., 2013; Fee and Thomas, 2004).

3.5 Variables

As stated above, this study focuses on mostly different variables than its companion paper by Schmitz and Sievers (2020). However, the dependent variable—M&A success—is utilized in both studies. Therefore, the following four paragraphs, which discuss how M&A success is measured in this study and how we address potential concerns, are also reprinted (except for minor adaptions to the underlying sample) from the companion paper for the previously outlined reasons concerning a convenient reading experience of a self-contained document.

M&A success (SUC) is the dependent variable of interest in this study. Following other scholars (e.g., Capron, 1999; Datta and Grant, 1990; Trichterborn et al., 2016), we measure M&A success subjectively by asking the survey participants to estimate the percentage of successful acquisitions that they participated in at their current firm. The provided answers ranged from zero to one.

One might argue that this subjective success measure is prone to reporting bias even in an anonymous survey. While we cannot rule out a potential bias, we want to highlight that objective measures are very difficult to obtain for acquisition success, and no theory currently provides a solution to this measurement challenge (Zollo and Meier, 2008). Instead, studies investigating M&A performance measures state that subjective measures assessing M&A success are quite useful. For instance, Schoenberg (2006) argues that "managers' subjective assessments may provide a suitable ex-post [success] measure" (Schoenberg, 2006, p. 368). Zollo and Meier (2008) summarize that subjective M&A success measures are linked to multiple objective measures.

Inspired by Zollo and Meier (2008), we asked the survey participants to rate the importance of various capital market, accounting, synergy, operational, employee, and subjective key performance indicators (KPIs) to measure M&A success at their firm on a five-point Likert scale from "not at all important" to "extremely important". Using this information, we estimate a generalized linear model (GLM), using maximum likelihood optimization, assuming a Bernoulli distribution for the dependent variable M&A success, and utilizing a probit link function and find that capital market, synergy, and operational KPIs significantly influence participants' subjective M&A success evaluation. This finding suggests that objective and subjective M&A measures are linked in our data, giving us further confidence to rely on subjective M&A

success as the dependent variable. Please find the details of this regression and its results in table S2 (online appendix B). Please refer to table S3 (online appendix B) for a list of included capital market, accounting, synergy, subjective, operational, and employee KPIs.

To further investigate a potential reporting bias, we test for differences in subjective M&A success evaluation by survey participant demographics. We perform this test to ensure that neither age, finance degree, position level, nor acquisition experience of survey participants influence their subjective M&A success evaluation. Employing the Kruskal–Wallis test, which is the nonparametric equivalent of the one-way analysis of variance, we test the null hypothesis that the group means for subjective M&A success by age (finance degree, position level, and acquisition experience) are the same. Table S4 (online appendix C) reports the results for all four considered participant demographics, showing that the null of the Kruskal-Wallis test cannot be rejected concerning the age, the finance degree, and the acquisition experience. While this outcome does not prove the alternative hypotheses for these three cases, it strongly suggests that the group means for age, finance degree, and acquisition experience are rather similar for the participant demographics. With regard to position level, the null of the Kruskal-Wallis test is rejected, implying that M&A success evaluation varies by position level. More precisely, survey participants that hold higher ranked position levels (i.e., board-, C-level, and heads of) perceive their firm's M&A success to be approximately 15 percentage points higher than those survey participants that hold a director or manager position. This result is consistent with the idea that higher positioned individuals tend to estimate success from a broader perspective including a historical angle, thereby reaching a more positive conclusion. Nevertheless, we cannot fully role out a potential reporting bias that top-level survey participants biased their M&A success evaluation in their favor despite full anonymity from the survey. The estimation of a comparable one-way analysis of variance test (ANOVA) as a robustness check yields the same results across all survey participant demographics (also reported in table S4). Overall, we conclude that the participant demographics do not influence subjective M&A success to a large extent. Taking the extant literature and our robustness checks into account, we are confident that the subjective M&A success measure used in this paper is very reliable for answering our research questions, in particular because it is related to objective M&A success measures and it is robust towards most differences in participant demographics.

Besides M&A success (SUC), the key variables focused on in this study are M&A process standardization (STD) and M&A advisors (ADV). Please note that the variables regarding M&A process standardization

and M&A advisors are both independent and dependent variables in our research model (see section 3.6). The descriptive statistics of both variables are presented in table 4, panel A below. The variable M&A process standardization is measured on a five-point Likert scale ranging from "not at all" (1) to "fully" (5) standardized. The variable labeled M&A advisors comprises four ordered categories: never, sometimes, only for complex acquisitions (i.e. complex), and always. Put differently, the M&A advisors variable indicates whether acquirers employ M&A advisors for no acquisition, for some acquisitions, only for complex acquisitions, or for every acquisition. We consider complex acquisitions separately given that the extant literature specifically emphasizes the requirement for M&A advisors in this type of acquisitions (e.g., Gordon et al., 2019; Jemison and Sitkin, 1986; Servaes and Zenner, 1996; Very and Schweiger, 2001). Additionally, the M&A advisors variable is combined with one of the following binary indicators: *ANY*, *FIN*, *LTA*, and *SC*. The indicator *ANY* reflects that any combination of financial advisors, legal/tax/audit advisors, and strategy consultant advisors is considered. The indicator *FIN* (*LTA*, *SC*) reflects that at least financial advisors (legal/tax/audit advisors, strategy consultant advisors) among others are included in a respondent firm's advisor employment pattern. For instance, the combined variable *FIN M&A advisor sometimes* indicates that on the one hand, a firm sometimes employs M&A advisors, and that on the other hand, among those employed M&A advisors at least financial advisors are present (other M&A advisors may also be present).

The comprehensive control framework regarding the M&A function comprises the binary variables *HQ*, *BU* and *regional M&A teams* and *experts*, which indicate whether a specific setup of the M&A function is present in a firm's organization. Furthermore, the variable *total M&A full-time equivalents (FTEs)* is a continuously-scaled number, which reflects the total number of M&A professionals within a firm. The descriptive statistics of these control variables are reported in table 4, panel B.

[Table 4 about here.]

Table 4, panel A reports that, on average, a sample firm considers 62% of their acquisitions to be successful. The percentage of successful acquisitions is fairly stable across all regions and firms' listing statuses. Moreover, Table 4 indicates that the respondent firms have, on average, somewhat (3.28) standardized M&A

processes. Again, we find little variation in M&A process standardization across regions and listing statuses, ranging from 3.00 for the Other region up to 3.37 for North America.

Furthermore, table 4, panel A presents the details regarding the M&A advisor employment patterns of respondent firms. With regard to the case of *ANY M&A advisor*, seven percent of the firms never employ an M&A advisor, 27% of the firms sometimes employ an M&A advisor, 32% of the firms employ an M&A advisor only for complex acquisitions, and 34% of the firms always employ an M&A advisor. Consequently, 93% (109 of 117) of the respondent firms utilize any M&A advisor. However, the aforementioned percentages regarding any M&A advisor employment vary significantly across regions and firms' listing statuses. For instance, 37% of the European firms always hire M&A advisors, while only 23% of the North American firms do so. In complex acquisitions, more than every third private company (38%) requires M&A advisors, whereas just every fifth public company (23%) relies on M&A advisors in such setting. Regarding *FIN M&A advisors*, 42% (22%, 17%, 18%) of respondent firms indicate to never (sometimes, complex, always) use financial advisors. While we observe some regional variation, most interestingly public firms employ financial advisors significantly more often than private firms (73% versus 41%). In comparison to Golubov et al. (2012), our sample of public firms utilize financial advisors less often (93% versus 73%), which may be attributed to a different measurement approach in our study. Considering the case of *LTA M&A advisors*, nine percent (26%, 29%, 36%) of respondent firms indicate to never (sometimes, complex, always) use legal/tax/audit advisors. Without surprise, legal/tax/audit advisors are frequently employed for complex or every acquisition across all regions and acquirers' listing statuses. Finally, we consider the case of *SC M&A advisors*, in which 73% (6%, 13%, 7%) of respondent firms indicate to never (sometimes, complex, always) use strategy consultant advisors. Overall, strategy consultant advisors are rarely used, except for complex acquisitions. Broadly speaking, strategy consultant advisor employment does not vary across regions and listing statuses, and remains low.

Concerning the setup of the M&A function within sample firms, table 4, panel B demonstrates that 71% of the firms have an M&A HQ team, 39% have M&A HQ experts, 16% have M&A BU teams, 21% have M&A BU experts, and 11% have REG M&A experts. While we find little variation for the M&A HQ team and experts, M&A BU teams and experts setups differ across regions and listing statuses. Compared to Asia Pacific, in North America and Europe significantly fewer M&A resources are distributed within BUs and regions. In a similar manner, private firms have less M&A teams and experts with their BUs or regions. This

observation is in line with the fact that private firms are relatively small, and thus, less divisionalized and/or regionalized. This is supported by the fact that private firms employ 4.45 M&A FTEs in total, whereas public firms employ more than twice as many M&A FTEs in total (9.61). On average, all the sample firms employ 7.16 M&A FTEs across their entire organizations. In line with Kale et al. (2002), Menz and Barnbeck (2017), and Trichterborn et al. (2016), our sample clearly indicates that it is appropriate and necessary to distinguish the various potential setups of the M&A function given that the observed functional setups vary significantly within our sample and given that approximately 38% of our sample firms have more than one setup in place than just the M&A HQ team. Please find all details in table 4, panel B.

Finally, we include several additional control variables. Concerning the independent variable M&A success, we follow extant M&A research and control for the acquirer's firm size (Moeller et al., 2004) and his or her closed acquisition, i.e., acquisition experience (e.g., Haleblian and Finkelstein, 1999; Kusewitt, 1985). Firm size is an indicator variable whether a firm has sales of over one billion USD in 2018, which holds true for 57% of the sample firms. Acquisition experience (i.e., closed) is a continuously-scaled variable based on the number of average annually closed acquisitions. On average, the sample firms close 3.24 acquisitions annually. Additionally, we control for industry and regional fixed effects which are both re-coded into nominal variables reflecting the acquirers' industries (i.e., manufacturing, mining/basic materials, services/healthcare, technology, transportation/utilities/media, and diversified/other) and the acquirers' HQ locations (i.e., North America, Europe, Asian Pacific, and Other, i.e., Angola, Argentina, Brazil, Chile, or South Africa), respectively. With regard to M&A advisors as independent variable, we further control for survey participants demographics (i.e., your age, your position level, and your M&A experience). Your age reflects the respondents age on a five-point scale ranging from less than 30 years of age up to more than 59 years of age. The average respondents is approximately 40–49 years old. Your position level indicates the hierarchical position of a survey respondent, ranging from board- to manager-level on a five-point scale and averaging at the third level (i.e., "director" or "head of"). Finally, the variable your M&A experience is continuously-scaled and accounts for the total closed career acquisitions of a survey respondent who average at 20 total acquisitions. We include these demographics as control variables to account for a potential relation between M&A decision-makers (i.e., survey respondents) and M&A advisor employment. For instance, more experienced M&A decision-makers may rely less on external advisors (Golubov et al., 2012). Please refer to section 3.3 and particularly table 1 for details regarding all these control variables.

3.6 Methodology

Our research questions and the interrelatedness of our hypotheses require an advanced empirical design (see figure 2). Therefore, we rely on structural equation modeling (SEM) (e.g., Hancock and Mueller, 2006; Hoyle, 1995; Kaplan, 2009). This approach is considered superior to separate regression analyses, especially in our setting where we are interested in direct and indirect (i.e., mediated) effects (e.g., Iacobucci et al., 2007; West et al., 2012; Zhao et al., 2010). Some may argue that our decent sample size of 117 observations[8] is not sufficient for a proper SEM mediation analysis. However, recent literature has investigated this matter and concludes that in SEM "mediation models behaved statistically regularly even for small samples" (Iacobucci et al., 2007, p. 151).

Shook et al. (2004) critically review SEM studies and recommend that scholars consider their data characteristics, such as underlying distributions more carefully. Therefore, we decide to extend our approach from a regular SEM to a more preferable GSEM approach (see Rabe-Hesketh et al., 2004). This approach allows us to combine the benefits of SEM, such as its adaptability and its powerfulness with the versatility of GLMs in one framework. Specifically, the GSEM enables us to incorporate Shook et al.'s (2004) aforementioned recommendation to consider data characteristics, by allowing for non-continuous response variables, which can be modeled via various approaches beyond linear regression (e.g., ordinal probit and Bernoulli probit regression).

In our model, the independent response variables are M&A success (SUC), M&A process standardization (STD), and M&A advisors (ADV). Within our GSEM, the regression regarding M&A success is estimated by assuming a Bernoulli distribution, and by utilizing a probit link function; the regression regarding M&A process standardization is estimated as linear regression because we consider this five-point scaled variable to be continuous instead of categorical, which is in line with current research (e.g., Iacobucci, 2012); lastly, the regression regarding M&A advisors is estimated via an ordinal probit model to account for the variable's categories. We prefer probit over logit link functions because of their advantages in mediation analyses (e.g., MacKinnon, 2008). The entire GSEM is estimated via a quasi-maximum likelihood function. Please note

[8] Compared to this study's companion paper (Schmitz and Sievers, 2020), we dropped nine further observations due to missing data. However, if we were to partly include these observations, our estimates still hold.

that the likelihood functions in SEM and GSEM are different. Moreover, we calculate heteroskedasticity-consistent error terms clustered by region (see Bodnar et al., 2019)[9]. Finally, we add the main variables and the control variables to the model as depicted in figure 2 (next section).

While the above mentioned approach estimates direct model effects, we are also interested in indirect (i.e., mediated) effects. Specifically, we will explore the indirect effects for M&A advisors onto M&A success via M&A process standardization, thereby accounting for hypothesis 3. Research acknowledges three key questions with regard to such mediation analysis. First and most importantly, does a mediation effect exist (i.e., is the effect significant)? Second, what is the effect size given different underlying variable scales? Finally, how can the effect be economically interpreted given different underlying variable scales?

We will first outline how we determine the significance of mediation effects. Early mediation research recommends to use Sobel's (1982) z-test to establish significance for mediation effects (Baron and Kenny, 1986). However, current research raises major concerns regarding this approach because the z-test assumes a normal distribution for the joint mediation path, which almost never holds and is particularly violated in smaller samples (e.g., Jose, 2013; MacKinnon, 2008; Preacher and Hayes, 2004; Zhao et al., 2010). Instead, recent research suggests to estimate mediation effects and their significance via the superior bootstrapping approach, thereby not imposing normality assumptions (e.g., Jose, 2013; MacKinnon, 2008; Preacher and Hayes, 2004; Preacher and Hayes, 2008; Zhao et al., 2010). Jose (2013) summarizes the ongoing discussion as follows "the prevailing opinion in the literature at this juncture is always use bootstrapping for mediation analyses." (Jose, 2013, p. 115). Moreover, Preacher and Hayes (2008) state that their "primary recommendation is to use bootstrapping—in particular, BC [bias corrected] bootstrapping—whenever possible" (Preacher and Hayes, 2008, p. 886), which is in line with other scholars' recommendations that consider complex models, such as ours (e.g., Williams and MacKinnon, 2008). Following this up-to-date advice, we use bootstrapping to investigate the significance of our mediation effects and consider an effect significant if zero is not within the estimated bias corrected (BC) confidence interval (CI) (e.g., Jose, 2013; MacKinnon, 2008; Zhao et al., 2010). Moreover, we run 5000 bootstrap iterations to exceed the minimum recommended number of 1000 iterations (e.g., MacKinnon, 2008). Please note that significant indirect effects are relevant even if no direct significant effect exists (see MacKinnon, 2008; Preacher and Hayes, 2004; Zhao et al., 2010).

[9] A natural alternative to regional clustering would be industry clustering, which yields qualitatively the same results.

Turning to the second and third question concerning effect size and economic interpretation given different underlying variable scales, we follow MacKinnon (2008), who recommend to standardize estimated model coefficients. This approach resolves issues stemming from different underlying variable scales. We choose to transform our model coefficients to average marginal effects, thereby not only standardizing coefficients but also allowing for an appropriate economic interpretation, in line with recent research (Barrett et al., 2019).

In this study, we define the total effect for any given variable that affects M&A success as the sum of its significant direct and its significant indirect effects on M&A success. Furthermore, we classify these effects according to the nomenclature of Zhao et al. (2010), who define mediation effects as complementary, competitive, indirect-only, direct-only, and no-effect. Complementary indicates that the direct and indirect effects are significant and have the same sign. Competitive indicates that the direct and indirect effects are significant and have the opposite sign. (In-)direct-only indicates that only the (in-)direct effect is significant. No-effect indicates that neither the direct effect nor the indirect effect is significant.

Overall, we estimate the presented research model, its direct, its indirect, and its total effects in four different cases. These cases are defined by combining one of the indicators *ANY*, *FIN*, *LTA*, and *SC* and the variable M&A advisors as explained in the previous section 3.5. Across these cases, all else is equal to ensure comparability.

Finally, we have to admit that our approach and its accompanying advantages entail one drawback. GSEM does not (yet) allow post-estimation model fit assessment. Being aware of best practices regarding SEM and the importance of model fit assessment (e.g., Shook et al., 2004; Williams et al., 2009), we have to acknowledge that neither overall nor incremental model fit for GSEM can be sufficiently assessed as of today. This is confirmed by the Stata technical support and is based on the fact that commonly utilized model fit tests (e.g., Shook et al., 2004; West et al., 2012), such as the chi-square test or the comparative index fit are not applicable to GSEM because GSEM violates their key assumption of multivariate normality. However, we carefully develop our model from theory and assess its fit apriori, thereby hoping to mitigate any potential concerns[10].

[10] We provide the variance-covariance and correlation matrices for our model in table S5 (online appendix D) for transparency reasons and for replication purposes. All the calculations are performed using standard commands in Stata 16.

4 Analyses and results

Given the complexity of our model and various cases for M&A advisors, we suggest the following three-step approach. First, we discuss the direct model effects. Second, we present the indirect model effects. Finally, we summarize the total effects. In each step, we focus on the *ANY M&A advisor* case and highlight differences across the other M&A advisor cases (i.e., *FIN*, *LTA*, and *SC*). Additionally, we outline differences across the M&A advisor employment patterns with regard to sometimes, complex, and always, all compared to the base case never. In line with hypotheses H1 to H3, we center our discussion and tables on the key variables M&A success, M&A process standardization, and M&A advisors. However, as the complete research model in figure 2 is estimated simultaneously, all other direct and indirect effects—especially regarding the functional setup of the M&A function—are also estimated and corresponding tables are available upon request.

[Figure 2 about here.]

Table 5 reports the simultaneously estimated direct (panel A) and indirect (panel B) model effects of the key variables of interest. First, table 5, panel A presents the direct effects on M&A success. In line with extant research, M&A process standardization (STD) has a significant positive effect on M&A success of 1.1% for the *ANY M&A advisor* case (at 1% test level) (e.g., Ashkenas et al., 1998; Jemison and Sitkin, 1986; Schmitz and Sievers, 2020; Tetenbaum, 1999). Furthermore, we find a significant negative effect of -4.1% (at 1% test level) for any M&A advisor employment on M&A success in complex acquisitions. A similar negative effect of -2.6% and -5.7% (both at 1% test level) in complex acquisitions can be observed for the cases of financial advisors and legal/tax/audit advisors, respectively. Also, the employment of legal/tax/audit advisors in just some acquisitions impacts M&A success negatively by -11.4% (at 1% test level). In contrast, financial advisors and strategy consultants, respectively, increase M&A success by 1.7% and 3.8% (at 10% and 1% test levels) when hired sometimes, and by 2.5% and 3.3% (both at 1% test level) when hired always. Consequently, we find differentiated results regarding hypothesis 1. On the one hand, especially financial advisors and strategy consultants can increase M&A success. On the other hand, M&A advisors, excluding strategy consultants, generally have a negative impact in complex acquisitions. Our findings confirm Servaes and Zenner (1996), who as well argue that M&A advisors can improve M&A success but fail to do so in some acquisitions due to specific deal characteristics, such as deal complexity. Furthermore, our findings

rather support the advocates of a positive effect from financial M&A advisors, such as Raghavendra Rau (2000) and Bao and Edmans (2011), who document increased CARs of approximately one percent. Most importantly, we are the first to document the benefits of strategy consultants (Gordon et al., 2019).

Second, table 5, panel A presents the direct effects of M&A advisors on M&A process standardization. In the general *ANY* case, M&A advisors enhance M&A process standardization to a significant extent of 0.666 points on a five point scale (at 5% test level) only when always employed. Additionally, legal/tax/audit advisors significantly increase M&A process standardization by 0.409 points (at 10% test level) in complex acquisitions. Thus, hypothesis 2 is partially supported, thereby extending previous findings regarding procedural benefits from M&A advisors, such as reduced process costs, improved target identification, and enhanced negotiation skills (e.g., Bowers and Miller, 1990; Golubov et al., 2012; Loyeung, 2018). Our insights emphasize that M&A advisors have to be frequently employed to provide these procedural benefits. While this is new evidence, it is in line with extant research from the behavioral sciences, in which it is argued that M&A advisors may transfer their knowledge ineffectively but sufficiently over time to the advised non-M&A-expert firm (Hinds et al., 2001). In contrast to hypothesis 2, we also find that financial advisors diminish M&A process standardization by -0.208 points (at 1% test level) when only employed sometimes. In this case, our findings are consistent with the fact that knowledge transfer does take place (e.g., Hinds et al., 2001; Jemison and Sitkin, 1986) and that process standards are reduced due to changing approaches, sometimes with and sometimes without M&A advisors.

[Table 5 about here.]

Table 5, panel B outlines the indirect effects of M&A advisors on M&A success mediated by M&A process standardization, and summarizes our finding regarding hypotheses 3. The presented evidence suggests that any M&A advisor employment significantly enhances M&A success through M&A process standardization by 0.377%, 0.435%, and 0.765% (all at the 5% test level) when employed sometimes, in complex acquisitions, and always, respectively. We further recognize that the continuous (i.e., always) employment of financial, legal, tax, audit and strategy consultant advisors especially provides benefits by increasing M&A success via M&A process standardization by 0.240%, 0.602%, and 0.344% (all at the 5% test level), respectively. These findings strongly support hypotheses 3 regarding the procedural benefits from M&A advisors (e.g., Bowers

and Miller, 1990; Golubov et al., 2012; Loyeung, 2018). Especially, if one considers that when M&A advisors are frequently employed, the well-established positive effects of M&A process standardization on M&A success emerge (e.g., Ashkenas et al., 1998; Jemison and Sitkin, 1986; Schmitz and Sievers, 2020; Tetenbaum, 1999; Trichterborn et al., 2016). Next, however, financial advisors and strategy consultants decrease M&A success via M&A process standardization when employed only sometimes (-0.233% and -0.629%, both at the 5% test level, respectively) and when employed only for complex acquisitions (-0.400% and -0.736% both at the 5% test level, respectively). Again, this result is consistent with the idea that the advisor-advisee knowledge transfer does not take place in these situations (e.g., Hinds et al., 2001; Jemison and Sitkin, 1986). Thus, sporadic employment of M&A advisors hinders process standards, thereby reducing M&A success. Similarly, acquisition complexity itself is also associated with an environment in which financial advisors and strategy consultants are employed but cannot turn M&A success in a favorable manner as previously found by Servaes and Zenner (1996).

Having investigated significant direct and significant indirect model effects on M&A success thus far, we now combine both effects to the total effects (i.e., the sum of the significant direct and significant indirect effects all at least at the 10% test level) on M&A success. Table 6 provides the respective results for M&A advisors. Three key findings emerge. First, M&A advisor employment is generally associated with a negative impact on M&A success in complex acquisitions. This conclusion holds true across all considered cases, although the impact varies from -5.3% (*LTA*) to -0.7% (*SC*). Overall, this finding is in line with Servaes and Zenner (1996), who argue that M&A advisors can improve M&A success but fail to do so in some acquisitions due to specific deal characteristics, such as deal complexity. Second, if employed sometimes or always, M&A advisors increase M&A success by 0.4% to 3.7%. In addition to this, hiring M&A advisors for every acquisition enhances M&A success more so than just relying on them sporadically. These findings resemble the procedural benefits from M&A advisors, such as reduced process costs, improved target identification, and enhanced negotiation skills (e.g., Bowers and Miller, 1990; Golubov et al., 2012; Loyeung, 2018). Furthermore, these results show that M&A advisors have to be frequently employed to best provide these procedural benefits through a potential knowledge transfer over time to the advised firm's M&A (Hinds et al., 2001). Finally, and most importantly, strategy consultants provide the greatest increase in M&A success across all considered M&A advisors. Specifically, they increase M&A success by up to 3.7%, which exceeds the benefits from financial advisors by more than one percentage point. Although the relative numbers seem

small, one must acknowledge that these figures become relatively large in multi million and billion dollar transactions. Given that no research has investigated strategy consultants in their role as M&A advisors yet (Gordon et al., 2019), we hope that future studies explore this matter in more detail.

[Table 6 about here.]

5 Concluding remarks

Based on survey data from M&A experts around the globe, this paper investigates the role of strategy consultants and various other M&A advisor types regarding their impact on M&A success. By incorporating the internal M&A organization of firms as a comprehensive control framework and by using generalized structural equation modeling, this study finds that, ceteris paribus, strategy consultants increase M&A success by up to 3.7%, thereby exceeding benefits from financial advisors by more than one percentage point. Turning to the frequency of M&A advisor employment, M&A success is improved the most if M&A advisors are hired regularly. Consistent with suggestions from prior research, we show that these benefits are partially mediated by the M&A process standardization channel. Put differently, M&A advisors are associated with improved acquirer M&A processes, such as improved target identification and enhanced negotiation skills (e.g., Bowers and Miller, 1990; Golubov et al., 2012; Loyeung, 2018) if advisors are regularly employed as procedural benefits are implemented over time through a potential advisor-advisee knowledge transfer (Hinds et al., 2001).

While these results provide important and new evidence regarding the impact of strategy consultants and other M&A advisors on M&A success, this study comes with the shortcoming inherent in the research design that utilizes surveys (e.g., Bodnar et al., 2019; Gompers et al., 2016; Graham and Harvey, 2001; Jagannathan et al., 2016). As acknowledged in these research articles, our study can only demonstrate associations but cannot offer causality. Thus, it would be beneficial if future research could build panel databases that use regular surveys to speak to causal inference in this setting. Finally, given that the role of strategy consultants as M&A advisors is still underexplored in academic research (Gordon et al., 2019), future studies might also investigate this matter in more detail. In particular, future research could explore how exactly these M&A advisors add value to M&A transactions.

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Table 1. Descriptive statistics

Panel A: Firm characteristics

			North America	Europe	Asia Pacific	Other	Public	Private
Variables	Mean	Obs.	Mean					
Large (>$1b)	0.57	117	0.52	0.58	0.46	0.88	0.71	0.36
Employees	23,193	117	14,098	25,052	10,937	63,250	36,360	10,936
Old (>50y)	0.52	116	0.48	0.56	0.38	0.50	0.59	0.40
Public	0.51	117	0.48	0.51	0.69	0.38	1.00	0.00

Panel B: Regional distribution

Variables	Obs.	Freq. (%)
North America	31	26
Europe	65	56
Asia Pacific	13	11
Other	8	7

Panel C: Industry distribution

Variables	Obs.	Freq. (%)
Manufacturing	40	34
Mining/Basic materials	8	7
Services/Healthcare	22	19
Technology	13	11
Transportation/Utilities/Media	15	13
Diversified/Other	19	16

Notes. This table reports the descriptive statistics for the firms of the corporate M&A experts who responded to our survey and that we use in our subsequent analyses. Observations vary across variables, depending on data availability. In panel A: *Large* is an indicator variable for firms with sales of over one billion USD. *Employees* reflects the total number of firms' employees. *Old* is an indicator variable for firms with incorporation more than 50 years ago. *Public* is an indicator variable for firms listed on a stock exchange. All variables refer to the 2018 fiscal year. In panel B: North American firms are those headquartered in the US or Canada. European firms are those headquartered in an European country or Russia. Asian Pacific firms are those headquartered in an Asian country, the Middle East, Australia, or New Zealand. Other region firms are those headquartered in the countries of Angola, Argentina, Brazil, Chile, or South Africa. In panel C: The variables reflect all industries. Please note that this table is an adapted reprint of the table 1 from Schmitz and Sievers (2020). Specifically, the reported numbers are adapted to this study and panel D is removed. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table 2. Sample representativeness (Orbis comparison)

Panel A: Public firms

	M&A Survey			Orbis		
Variables	Obs.	Freq. (%)	Mean	Obs.	Freq. (%)	Mean
Large (>$1B)	43	72	n/a	3,086	31	n/a
Small	17	28	n/a	6,724	69	n/a
Old (>50y)	35	59	n/a	1,864	19	n/a
Young	24	41	n/a	7,887	81	n/a
Employees	45	n/a	36,360	5,044	n/a	10,122

Panel B: Private firms

	M&A Survey			Orbis		
Variables	Obs.	Freq. (%)	Mean	Obs.	Freq. (%)	Mean
Large (>$1B)	18	36	n/a	971	6	n/a
Small	32	64	n/a	16,304	94	n/a
Old (>50y)	20	40	n/a	1,970	12	n/a
Young	30	60	n/a	15,011	88	n/a
Employees	43	n/a	10,936	2,571	n/a	1,147

Notes. In this table, panel A (panel B) contrasts the public (private) firms from our global M&A survey to the public (private) firms from the global Orbis database by Bureau van Dijk for the fiscal year ending December 2018. The firms from our global M&A survey are restricted to companies, which provided the required data for comparison, i.e., 60 public and 50 private companies. The Orbis firms are restricted to have a reported revenue and employee number for the fiscal year ending December 2018 and to have closed at least one acquisition as acquirer since January 2015, resulting in 9,993 public and 20,113 private companies. Observations vary across variables, depending on data availability. We report the number of observations and frequencies (in percent) for the following variables: *Large* (*Small*) is an indicator variable for firms with sales of over (under or equal to) one billion USD. *Old* (*Young*) is an indicator variable for firms with incorporation more than (less or equal to) 50 years ago. For the variable *Employees*, which reflects the total number of firms' employees, we report observations and sample means. Please note that this table is an adapted reprint of the table 2 from Schmitz and Sievers (2020). Specifically, the reported numbers are adapted to this study. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table 3. Sample representativeness (SDC comparison)

Panel A: All firms

	M&A Survey		SDC	
Variables	Mean	Obs.	Mean	Obs.
Acq. size ($m)	100.1	115	108.8	259,785
Horizontal acq.	0.49	95	0.27	627,278
Diversifying acq.	0.51	95	0.73	627,278
Cross-border acq.	0.46	95	0.29	643,206
Hostile acq.	0.02	95	0.0004	643,207
Private target	0.64	95	0.50	627,727
Cash only payment	0.75	94	0.61	143,579
Mixed payment	0.23	94	0.35	143,579

Panel B: Public firms

	M&A Survey		SDC	
Variables	Mean	Obs.	Mean	Obs.
Acq. size ($m)	113.3	59	106.6	108,147
Horizontal acq.	0.55	48	0.28	203,536
Diversifying acq.	0.45	48	0.72	203,536
Cross-border acq.	0.55	48	0.33	206,639
Hostile acq.	0.03	48	0.0005	206,639
Private target	0.70	48	0.54	203,536
Cash only payment	0.81	48	0.52	63,816
Mixed payment	0.18	48	0.40	63,816

Panel C: Private firms

	M&A Survey		SDC	
Variables	Mean	Obs.	Mean	Obs.
Acq. size ($m)	84.3	48	112.4	93,016
Horizontal acq.	0.46	42	0.25	260,812
Diversifying acq.	0.54	42	0.75	260,812
Cross-border acq.	0.40	42	0.18	268,798
Hostile acq.	0.00	42	0.0003	268,798
Private target	0.64	42	0.47	260,812
Cash only payment	0.69	42	0.67	49,801
Mixed payment	0.31	42	0.33	49,801

Notes. In this table, panel A contrasts M&A activities of all firms from our global M&A survey with all firms from the global SDC Platinum (SDC) database. Panel B contrasts M&A activities of public firms from our global M&A survey with public firms from the global SDC database. Panel C contrasts M&A activities of private firms from our global M&A survey with private firms from the global SDC database (panel C). The firms from our global M&A survey are restricted to companies, which provided the required data for comparison and are used in subsequent analyses, i.e., 115 overall, 59 public, and 48 private companies. The SDC sample firms are restricted to have at least one closed acquisition of the following types "Acq. of Certain Assets", "Acq. Major Interests, "Acq. Partial Interests", "Acq. of Assets", or "Acquisition" from 1980 to 2017, resulting in 643,207 overall, 206,639 public, and 268,798 private companies. Observations vary across variables, depending on data availability. In each panel, we report the means and number of observations for the following variables: *Acq. size* reflects the transaction volume in USD million. *Horizontal acq.* is an indicator variable for those acquisitions within the same industry (in SDC, this variable is modeled by comparing acquirer's and target's primary SIC codes). *Diversifying acq.* is an indicator variable for all nonhorizontal acquisitions. *Cross-border acq.* is an indicator variable for those acquisitions targeting a nondomestic firm. *Hostile acq.* is an indicator variable for those acquisitions without target consent. *Private target* is an indicator variable for targets not listed on a stock exchange. *Cash only payment* is an indicator variable for acquisitions solely paid in cash. *Mixed payment* is an indicator variable for acquisitions paid with at least two means of payment (e.g., cash and stock). All aforementioned indicator variables are measured in percentages since the survey participants were asked to indicate the percentage of the horizontal (diversifying, cross-border, hostile, private target, cash only, and mixed payment) acquisitions that they have participated in at their current firm. Please note that this table is an adapted reprint of the table 3 from Schmitz and Sievers (2020). Specifically, the reported numbers are adapted to this study. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table 4. Firm M&A characteristics

Panel A: Key variables

			North America	Europe	Asia Pacific	Other	Public	Private
Variables	Mean	Obs.			Mean			
M&A success	0.62	117	0.66	0.62	0.62	0.50	0.59	0.64
M&A process standardization	3.28	117	3.23	3.37	3.15	3.00	3.32	3.28
ANY M&A advisors								
never	0.07	117	0.13	0.03	0.08	0.13	0.07	0.06
sometimes	0.27	117	0.19	0.28	0.38	0.38	0.37	0.22
complex	0.32	117	0.45	0.32	0.15	n/a	0.23	0.38
always	0.34	117	0.23	0.37	0.38	0.50	0.33	0.34
FIN M&A advisors								
never	0.42	109	0.44	0.44	0.25	0.43	0.27	0.60
sometimes	0.22	109	0.15	0.22	0.33	0.29	0.34	0.13
complex	0.17	109	0.26	0.17	0.08	n/a	0.20	0.11
always	0.18	109	0.15	0.16	0.33	0.29	0.20	0.17
LTA M&A advisors								
never	0.09	109	0.15	0.06	0.08	0.14	0.07	0.11
sometimes	0.26	109	0.19	0.25	0.42	0.29	0.36	0.19
complex	0.29	109	0.41	0.30	0.17	n/a	0.23	0.34
always	0.36	109	0.26	0.38	0.33	0.57	0.34	0.36
SC M&A advisors								
never	0.73	109	0.74	0.75	0.67	0.71	0.70	0.77
sometimes	0.06	109	0.04	0.05	0.08	0.29	0.07	0.09
complex	0.13	109	0.11	0.14	0.17	n/a	0.16	0.09
always	0.07	109	0.11	0.06	0.08	n/a	0.07	0.06

Panel B: Control variables (for the comprehensive control framework regarding the M&A function)

			North America	Europe	Asia Pacific	Other	Public	Private
Variables	Mean	Obs.			Mean			
M&A HQ team	0.71	117	0.71	0.69	0.77	0.75	0.75	0.70
M&A HQ experts	0.39	117	0.39	0.38	0.38	0.50	0.40	0.32
M&A BU teams	0.16	117	0.10	0.15	0.38	0.13	0.18	0.16
M&A BU experts	0.21	117	0.23	0.15	0.38	0.25	0.25	0.12
M&A REG experts	0.11	117	0.13	0.08	0.23	0.13	0.17	0.04
Total M&A FTE	7.16	117	6.58	7.01	6.08	12.38	9.61	4.54

Notes. In this table, panel A (panel B) reports the key variables (comprehensive control framework variables) regarding the M&A characteristics for the firms who responded to our global M&A survey and that we use in our subsequent analyses. *M&A success* reflects the percentage of successful acquisitions (please refer to section 3.5 for a detailed discussion on how M&A success is measured in this study). *M&A process standardization* is a five-point Likert-scale variable, indicating the level of M&A process standardization on a scale from "not at all" (1) to "fully" (5) standardized. *M&A advisors* is an ordinal variable, indicating whether advisors are *never*, *sometimes*, only for complex acquisitions (i.e., *complex*), or *always* employed. The *M&A advisors* variable is combined with one of the following binary indicators: *ANY*, *FIN*, *LTA*, and *SC*. The indicator *ANY* reflects that any combination of financial advisors, legal/tax/audit advisors, and strategy consultant advisors is considered. The indicator *FIN* (*LTA*, *SC*) reflects that at least financial advisors (legal/tax/audit advisors, strategy consultant advisors) among others are included in a respondent firm's advisor employment pattern. For instance, the combined variable *ANY M&A advisor sometimes* indicates that, on average, 27% of respondent firms sometimes employ any combination of financial advisors, legal/tax/audit advisors, and strategy consultant advisors. All variables with regard to the *HQ*, *BU* and *regional M&A teams* and *experts* are binary, indicating whether a specific setup of the M&A function is present in a firm's organization. The variable *total M&A FTEs* is a continuously-scaled number, which reflects the total number of M&A professionals within a firm. Missing observations are indicated by n/a. Please not that some percentages do not add up to 100% due to rounding differences.

Table 5. Direct and indirect model effects of the key variables of interest

Panel A: Direct model effects on M&A success (SUC) and M&A process standardization (STD), respectively

		ANY		FIN		LTA		SC	
Variable paths	Hyp.	dy/dx	P-val.	dy/dx	P-val.	dy/dx	P-val.	dy/dx	P-val.
STD -> SUC		**0.011**	(0.000)	**0.011**	(0.000)	0.009	(0.230)	**0.014**	(0.000)
ADV -> SUC									
sometimes	H1: +	−0.004	(0.216)	**0.017**	(0.061)	**−0.114**	(0.010)	**0.038**	(0.001)
complex	H1: +	**−0.041**	(0.000)	**−0.026**	(0.008)	**−0.057**	(0.000)	0.003	(0.791)
always	H1: +	0.000	(0.896)	**0.025**	(0.000)	0.000	(0.782)	**0.033**	(0.001)
ADV -> STD									
sometimes	H2: +	0.328	(0.282)	**−0.208**	(0.000)	0.428	(0.227)	−0.447	(0.287)
complex	H2: +	0.379	(0.331)	−0.356	(0.110)	**0.409**	(0.063)	−0.523	(0.125)
always	H2: +	**0.666**	(0.023)	0.214	(0.106)	0.644	(0.102)	0.245	(0.224)
Obs.		117		109		109		109	

Panel B: Indirect model effects on M&A success (SUC) mediated by M&A process standardization (STD)

		ANY			FIN			LTA			SC		
Variable paths	Hyp.	dy/dx	95% CI		dy/dx	95% CI		dy/dx	95% CI		dy/dx	95% CI	
ADV -> STD -> SUC													
sometimes	H3: +	**3.77**	8.0×10^{-4}	1.4×10^{-1}	**−2.33**	-1.8×10^{-1}	-3.7×10^{-4}	**4.00**	1.1×10^{-3}	2.2×10^{-1}	**−6.29**	-9.0×10^{-1}	-8.8×10^{-4}
complex	H3: +	**4.35**	8.8×10^{-4}	2.6×10^{-1}	**−4.00**	-2.2×10^{-1}	-4.3×10^{-4}	**3.83**	9.4×10^{-4}	2.6×10^{-1}	**−7.36**	-2.2×10^{-1}	-9.2×10^{-4}
always	H3: +	**7.65**	1.1×10^{-3}	4.0×10^{-1}	**2.40**	2.6×10^{-4}	3.1×10^{-1}	**6.02**	1.1×10^{-3}	2.5×10^{-1}	**3.44**	4.7×10^{-4}	2.8×10^{-1}
Obs.		117			109			109			109		
Complete bootstrap rep.		4012			4153			3910			4017		

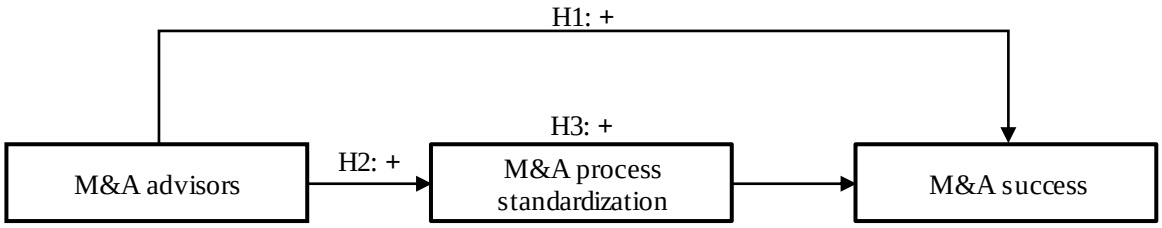
Notes. In this table, panel A reports the simultaneously estimated direct effects of the key variables of interest for the GSEM, as defined in section 3.6 and depicted in figure 2. The independent variable *M&A success (SUC)* is estimated by assuming a Bernoulli distribution, and by utilizing a probit link function. The independent variable *M&A process standardization (STD)* is estimated as linear regression. Columns *ANY*, *FIN*, *LTA*, and *SC* report the direct average marginal effects (dy/dx) and p-values, varied by the four defined cases for *M&A advisors*, with all else being equal (see section 3.5 and section 3.6). P-values reported in parenthesis indicate statistical significance of two-tail test levels. Significant effects are printed in bold. Standard errors (not shown) are estimated with heteroskedasticity-consistent error terms clustered by region. In this table, panel B reports the simultaneously estimated indirect effects on *M&A success (SUC)* mediated by *M&A process standardization (STD)* of the key variables of interest for the GSEM, as defined in section 3.6 and depicted in figure 2. Columns *ANY*, *FIN*, *LTA*, and *SC* report the indirect average marginal effects (dy/dx) and the 95% bias corrected confidence intervals (95% CI), which are all based of 5000 bootstrap iterations and varied by the four defined cases for *M&A advisors*, with all else being equal (see Section 3.5 and section 3.6). These average marginal effects are each to be multiplied by 10^{-3}. Effects that are significant regarding the five percent two-tail test level are printed in bold. Complete bootstrap replications (rep.) reflects the number of successful bootstrap iterations. Standard errors (not shown) are estimated with heteroskedasticity-consistent error terms clustered by region. The data are from our global M&A survey as of March 2020. Please refer to table 1 for details on the included sample firms. Please refer to section 3.5 for details on all utilized variables. These statistics do not take test multiplicity into account.

Table 6. Total model effects of the M&A advisor variables on M&A success (SUC) and respective mediation types

	ANY		FIN		LTA		SC	
Variables	dy/dx	Med. type	dy/dx	Med. type	dy/dx	Med. type	dy/dx	Med. type
M&A advisors								
sometimes	**0.004**	indirect-only	**0.015**	competitive	**−0.110**	competitive	**0.032**	competitive
complex	**−0.037**	competitive	**−0.030**	complementary	**−0.053**	competitive	**−0.007**	indirect-only
always	**0.008**	indirect-only	**0.027**	complementary	**0.006**	indirect-only	**0.037**	complementary
Obs.	117		109		109		109	

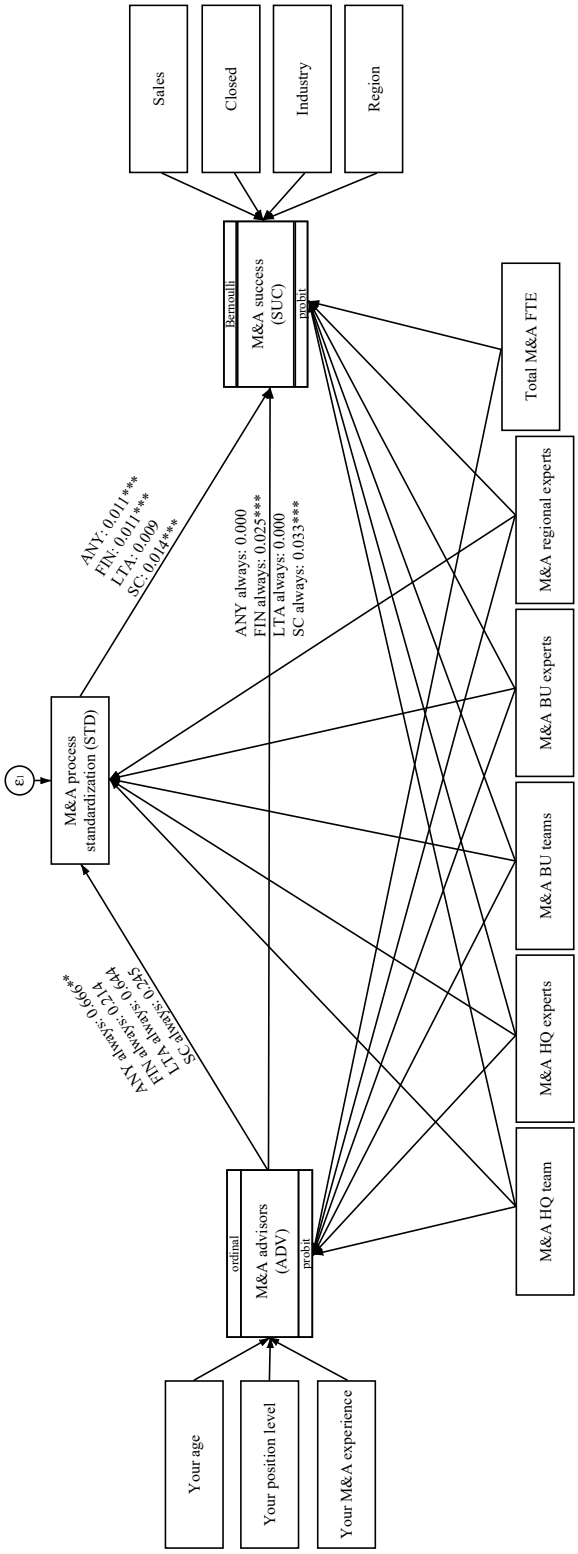
Notes. This table reports the simultaneously estimated total effects (i.e., the sum of the significant direct and significant indirect effects all at least at the 10% test level) on *M&A success (SUC)*, as defined in section 3.6 and depicted in figure 2. Columns *ANY*, *FIN*, *LTA*, and *SC* report the total average marginal effects (dy/dx) and the mediation (med.) type for the indirect effect mediated by *M&A process standardization (STD)*, varied by the four defined cases for *M&A advisors*, with all else being equal (see Section 3.5 and section 3.6). Each mediation effect is classified as complementary, competitive, indirect-only, direct-only, and no-effect, in line with Zhao et al. (2010). Complementary indicates that the direct and indirect effects are significant and have the same sign. Competitive indicates that the direct and indirect effects are significant and have the opposite sign. (In-)direct-only indicates that only the (in-)direct effect is significant. No-effect indicates that neither the direct effect nor the indirect effect is significant (refer to section 3.6). The data are from our global M&A survey as of March 2020. Please refer to table 1 for details on the included sample firms. Please refer to section 3.5 for details on all utilized variables. These statistics do not take test multiplicity into account.

Figure 1. Research model (simplified) and hypotheses



Notes. This schematic diagram illustrates the study's research model (simplified), it's key variables, and their relationships, which are formulated in hypotheses H1 through H3. Hypotheses H1 and H2 consider direct effects. Hypothesis H3 regards indirect effects mediated by M&A process standardization. Please refer to the full model in section 4 for additional details.

Figure 2. Full research model with selected GSEM estimates



Notes. This illustration shows the study's full research model, including all considered variables. Generally speaking, path coefficients are average marginal effects that report the direct effects between variables as outlined in section 3.6. The depicted path estimates for the key variables are based on the cases, in which acquirers employ *ANY*, *FIN*, *LTA*, and *SC* M&A advisors for every acquisition (i.e., *always*), respectively (see section 3.6). All other cases are omitted to ensure legibility. Also, indirect (i.e., mediated) effects are not shown. The two-tail significance levels are indicated by *** (1%), ** (5%), and * (10%). Please refer to section 4 and table 5 for all details and model cases.

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

Alexander Schmitz[a], Soenke Sievers[a]

[a] Paderborn University, Warburger Str. 100, 33098 Paderborn, Germany

✉ alexander.schmitz@wiwi.uni-paderborn.de (corresponding author), soenke.sievers@wiwi.uni-paderborn.de

Online Appendix A: Global M&A survey front page and list of questions

Please note that this online appendix A is in parts a reprint of the online appendix A from Schmitz and Sievers (2020). Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

The following figure figure S1 shows the survey's front page.

[Figure S1 about here.]

The following table table S1 lists all questions and corresponding variables that are used to produce this study's findings.

[Table S1 about here.]

Online Appendix B: KPIs and subjective M&A success

Please note that this online appendix B is in parts a reprint of the online appendix B from Schmitz and Sievers (2020). Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

As outlined in section 3.5, the following table reports the regression results for KPIs and subjective M&A success. Refer to the table notes for further technical details. We find that capital market, synergy, and operational KPIs significantly influence participants' subjective M&A success evaluation. This finding suggests that objective and subjective M&A measures are linked in our data, giving us further confidence to rely on subjective M&A success as dependent variable for the main part of this study.

[Table S2 about here.]

The following table lists the additional questions and variables that are required for the regression on KPIs and subjective M&A success reported in the previous table.

[Table S3 about here.]

Online Appendix C: Survey participant demographics and subjective M&A success

Please note that this online appendix C is in parts a reprint of the online appendix C from Schmitz and Sievers (2020). Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

As outlined in section 3.5, we conclude from the following table table S4 that participant demographics do not influence subjective M&A success to a large extent.

[Table S4 about here.]

Online Appendix D: Variance-covariance and correlation matrices for the GSEM

As outlined in section 3.6, we provide the model's variance-covariance and correlation matrices in table S5 for transparency reasons and for replication purposes.

[Table S5 about here.]

Table S1. List of the global M&A survey questions and the corresponding variables used in this study

Questions	Corresponding variables
In an average year: How many acquisition targets. . .	
are successfully closed?	Closed
How is the "M&A function" structured internally?	
Dedicated M&A team at headquarter	M&A HQ teams
M&A experts in specific functions at headquarter (e.g., corporate development)	M&A HQ experts
Dedicated M&A team(s) in business units	M&A BU teams
M&A experts as part of business units	M&A BU experts
M&A experts as part of regions	M&A REG experts
Considering only M&A staff: What is the total number of...	
M&A professionals?	Total M&A FTEs
How standardized are M&A buy-side processes?	M&A process standardization (STD)
Are external advisors employed for buy-side processes?	M&A advisors (ADV)
What is the percentage of acquisitions that you consider successful?	M&A success (SUC)

Notes. This table lists all the questions and corresponding variables that are used to produce this study's findings, except for the common questions regarding participants' and firms' demographics. The questions are ordered according to their appearance in the global M&A survey. This table does not account for the full visual layout of the actual online survey to allow for a better overview. For instance, answer options, such as underlying scales are not included but can be derived from the main text body (refer to section 3.5). Please note that the global M&A survey data comprise additional information concerning acquirers' M&A activity, M&A organization, M&A integration, and M&A success measures, which we plan to use in subsequent studies. Please note that this table is an adapted reprint of the table S1 in online appendix A from Schmitz and Sievers (2020). Specifically, the listed questions and the corresponding variables are adapted to this study. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table S2. KPIs and subjective M&A success

	(1)		(2)		(3)		(4)	
Dep. Var.: M&A Success	Coeff.	P-val.	Coeff.	P-val.	Coeff.	P-val.	dy/dx	P-val.
Capital market KPIs (mean)	**−0.084**	(0.047)	**−0.152**	(0.001)	**−0.085**	(0.045)	**−0.029**	(0.039)
Accounting KPIs (mean)	0.005	(0.983)	−0.030	(0.891)	−0.004	(0.985)	−0.001	(0.985)
Synergy KPIs (mean)	**−0.187**	(0.017)	**−0.176**	(0.022)	**−0.185**	(0.032)	**−0.064**	(0.039)
Operational KPIs (mean)	**0.712**	(0.039)	**0.708**	(0.046)	**0.710**	(0.037)	**0.246**	(0.030)
Employee KPIs (mean)	−0.138	(0.255)	−0.111	(0.402)	−0.138	(0.253)	−0.048	(0.244)
Subjective KPIs (mean)	−0.085	(0.221)	−0.050	(0.453)	−0.087	(0.208)	−0.030	(0.201)
Common M&A controls	Yes		Yes		Yes		Yes	
Region fixed effects	Yes		No		Yes		Yes	
Industry fixed effects	No		Yes		Yes		Yes	
Obs.	74		74		74		74	

Notes. This table reports the GLM estimation results for the regression on M&A success. The GLM is estimated, using maximum likelihood optimization, assuming a Bernoulli distribution for the dependent variable, and utilizing a probit link function. The dependent variable is (subjective) M&A success, which is a continuous variable in percent for firms' M&A success, as described in section 3.5. The independent variables of interest are on capital market, accounting, synergy, operational, employee, and subjective KPIs. *Capital market KPIs (mean)* is a mean variable that takes all the capital market KPIs into account, as listed in table S3. The variables *Accounting KPIs (mean)*, *Synergy KPIs (mean)*, *Operational KPIs (mean)*, *Employee KPIs (mean)*, and *Subjective KPIs (mean)* are defined in the same manner as *Capital market KPIs (mean)*. All underlying KPI variables are listed in table S3 and are measured on a five-point Likert scale ranging from "not at all important" to "extremely important". Since these variables are all well-known, they are considered self-explanatory without further explanations in table S3. Following general M&A research, *common M&A controls* comprise the acquirer's firm size (Moeller et al., 2004), his or her acquisition activity (e.g., Haleblian and Finkelstein, 1999; Kusewitt, 1985), and the deal characteristics for horizontality (e.g., Capron, 1999; Kusewitt, 1985), diversification (e.g., Gillan et al., 2000; Graham et al., 2002; Lamont and Anderson, 1985; Servaes, 1996), hostility (Schwert, 2000), target listing status (e.g., Capron and Shen, 2007; Chang, 1998), and payment type (e.g., Chang, 1998; Faccio and Masulis, 2005; Travlos, 1987). Firm size is determined by revenue in USD in 2018. Acquisition activity is defined by the number of average annual acquisitions. All the above mentioned deal characteristics consist of indicator variables measured in percentages since the survey participants were asked to indicate the percentage of the horizontal (diversifying, hostile, public target, cash only payment) acquisitions that they have participated in at their current firm. *Regional* and *industry fixed effects* are as defined and explained in section 3.5. For this analysis, missing survey data (especially regarding the *common M&A controls*) are row-wise deleted. Columns (1) through (3) report the coefficients and p-values, varied by regional and industry fixed effects, with all else being equal. Column (4) reports the average marginal effects and the p-values of the full model. P-values reported in parenthesis indicate statistical significance of two-tail test levels. Significant estimates are printed in bold, except for control variables. Variable names are printed in bold if and only if full model estimates are significant. Standard errors (not shown) are estimated with heteroskedasticity-consistent error terms clustered by region. The data are from our global M&A survey as of March 2020. Please refer to table 1 for details on the included sample firms. These statistics do not take test multiplicity into account. Please note that this table is an adapted reprint of the table S2 in online appendix B from Schmitz and Sievers (2020). Specifically, the table notes are extended to provide more clarity. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table S3. List of the additional M&A survey questions and the corresponding variables required for the regression in table S2

Questions	Corresponding variables
How important are the following "Financial Domain" KPIs to evaluate acquisition success?. . .	
Capital market KPIs	Capital market KPIs (mean)
Short-term announcement returns (CAR)	———————-"———————-
Buy-and-hold abnormal returns (BHAR)	———————-"———————-
Development of stock price	———————-"———————-
Shareholder value	———————-"———————-
Borrowing ability	———————-"———————-
Alpha from a factor model	———————-"———————-
Accounting KPIs	Accounting KPIs (mean)
Return on assets (ROA)	——————"——————
Return on sales (ROS)	——————"——————
Return on equity (ROE)	——————"——————
Return on investment (ROI)	——————"——————
Return on capital employed (ROCE)	——————"——————
Economic value added (EVA)	——————"——————
Cash value added (CVA)	——————"——————
Economic profit	——————"——————
Absolute measures (sales, profits, assets)	——————"——————
Cash flows	——————"——————
Cost reductions	——————"——————
Liquidity	——————"——————
Leverage	——————"——————
Other financial KPIs	Synergy KPIs (mean)
Synergy realization: Revenue	———————"———————
Synergy realization: Costs	———————"———————
Synergy realization: Balance sheet	———————"———————

Continued

Table S3 (Continued). List of the additional M&A survey questions and the corresponding variables required for the regression in table S2

Questions	Corresponding variables
How important are the following "Non-Financial Domain" KPIs to evaluate acquisition success?. . .	
Subjective KPIs	Subjective KPIs (mean)
CEO satisfaction	_____"_____
Board satisfaction	_____"_____
Operational KPIs	Operational KPIs (mean)
Milestone/business plan tracking	_____"_____
Operations and systems conversion	_____"_____
Human resource integration	_____"_____
Knowledge transfer	_____"_____
Integration efficiency	_____"_____
Innovation generation	_____"_____
New business generation	_____"_____
Customer relationship development	_____"_____
Market share development	_____"_____
Competitive position	_____"_____
Employee KPIs	Employee KPIs (mean)
Employee retention: Key staff	_____-"_____
Employee retention: General staff	_____-"_____
Employee engagement and motivation	_____-"_____

Notes. This table lists the additional questions and variables that are required for the regression on KPIs and subjective M&A success reported in table S2. The listed questions are ordered according to their appearance in the global M&A survey. This table does not account for the full visual layout of the actual online survey to allow for a better overview. However, each listed question is based on a five-point Likert scale ranging from “not at all important” to “extremely important”. Please note that this table is an exact reprint of the table S3 in online appendix B from Schmitz and Sievers (2020). Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table S4. Survey participant demographics and subjective M&A success

Panel A: Survey participant age

Age	Obs.	Mean success
< 30	3	0.49
30–39	38	0.58
40–49	36	0.65
50–59	32	0.65
> 59	8	0.63
P-value Kruskal-Wallis test: 0.735		
P-value one-way ANOVA: 0.586		

Panel B: Survey participant finance degree

Finance degree	Obs.	Mean success
No	53	0.60
Yes	64	0.64
P-value Kruskal-Wallis test: 0.378		
P-value one-way ANOVA: 0.463		

Panel C: Survey participant position level

Position level	Obs.	Mean success
Level 0 (i.e., board)	1	0.70
Level 1 (i.e., C-level)	17	0.71
Level 2 (i.e., head of)	35	0.69
Level 3 (i.e., director)	45	0.56
Level 4 (i.e., manager)	19	0.55
P-value Kruskal-Wallis test: 0.076		
P-value one-way ANOVA: 0.073		

Panel D: Survey participant acquisition experience

Acquisition experience	Obs.	Mean success
2 acquisitions	9	0.60
3 acquisitions	5	0.58
4 acquisitions	6	0.74
5 acquisitions	7	0.45
7 acquisitions	7	0.65
8 acquisitions	5	0.69
10 acquisitions	8	0.68
15 acquisitions	8	0.69
20 acquisitions	8	0.63
25 acquisitions	7	0.70
30 acquisitions	6	0.64
P-value Kruskal-Wallis test: 0.525		
P-value one-way ANOVA: 0.374		

Notes. This table reports survey participant demographics (age, finance degree, position level, and acquisition experience) and perceived M&A success to further investigate a potential reporting bias. Panel A reports five age groups and their respective group means for M&A success. Panel B reports whether a survey participant has a finance degree and their respective group means for M&A success. Panel C reports five groups of position levels and their respective group means for M&A success. Panel D reports twelve groups for acquisition experience and their respective group means for M&A success. Acquisition experience is reflected by total completed career acquisitions. In panel D, groups with less than five observations are visually omitted to guarantee table structure clarity. The last line of each panel reports the p-value estimate of the Kruskal-Wallis test, testing the null hypothesis that group means for subjective M&A success by age (finance degree, position level, and acquisition experience) are the same. The null of the Kruskal-Wallis test cannot be rejected concerning the age, the finance degree, and the acquisition experience. While this outcome does not prove the alternative hypotheses for these three cases, it strongly suggests that the group means for age, finance degree, and acquisition experience are rather similar for the participant demographics. With regard to position level, the null of the Kruskal-Wallis test is rejected, implying that M&A success evaluation varies by position level. The estimation of a comparable one-way ANOVA as a robustness check yields the same results across all survey participant demographics. Please recall that no statistic allows us to directly test the desired null hypothesis that the group means are different for more than two groups. Please find the detailed discussion of this table in section 3.5. Please note that this table is an adapted reprint of the table S4 in online appendix C from Schmitz and Sievers (2020). Specifically, the reported numbers and the table description are adapted to this study. Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

Table S5. Variance-covariance and correlation matrices for the GSEM

	A 1.	A 2.	A 3.	A 4.	A 5.	A 6.	A 7.	A 8.	A 9.	A 10.	A 11.	A 12.	A 13.	A 14.	A 15.	B 2.	B 3.	B 4.	B 5.	B 6.	B 7.	B 8.	B 9.	B 16.	C 5.	C 6.	C 7.	C 8.	C 9.	C 10.	C 17.	C 18.	C 19.	C 20.	C 21.	C 22.	B 23.
A 1. STD	.00	−.75	−.75	−.63	.53	.63	.84	.63	.59	−.60	−.40	−.65	−.64	−.53	.79	−.99	−.99	−.93	−.47	−.66	−.99	.29	.99	.91	−.86	.91	−.97	.39	−.35	−.92	.62	.71	−.32	−.44	.30	.74	.82
A 2. ADV1	−.03	.69	.85	.85	−.78	−.84	−.79	−.80	−.73	.71	.74	.81	.79	−.03	−.83	.82	.82	.85	.83	.84	.71	.38	−.84	−.94	.86	−.93	.83	.29	−.03	.94	−.68	−.94	.02	−.05	−.67	−.97	−.88
A 3. ADV2	−.03	.61	.75	.97	−.95	−.97	−.97	−.98	−.97	.96	.89	.98	.98	−.14	−1.00	.82	.76	.65	.90	.98	.65	.03	−.80	−.90	.97	−.75	.88	−.03	.49	.88	−.96	−.64	−.34	−.26	−.84	−.91	−.98
A 4. ADV3	−.03	.67	.81	.92	−.99	−1.00	−.92	−.99	−.98	.97	.96	1.00	.99	−.32	−.95	.72	.66	.57	.97	1.00	.52	.21	−.70	−.86	.93	−.70	.79	.16	.39	.83	−.95	−.65	−.46	−.42	−.93	−.93	−.96
A 5. HQ team	.02	−.58	−.74	−.86	.82	.99	.89	.99	.99	−.98	−.99	−.99	−.99	.43	.93	−.64	−.56	−.46	−.98	−.99	−.41	−.21	.61	.79	−.89	.60	−.72	−.18	−.44	−.75	.96	.55	.57	.53	.97	.88	.92
A 6. HQ exp	.02	−.49	−.60	−.68	.64	.51	.93	1.00	.98	−.97	−.96	−1.00	−.99	.32	.96	−.73	−.66	−.57	−.97	−1.00	−.52	−.19	.71	.86	−.93	.70	−.80	−.14	−.41	−.83	.96	.64	.46	.42	.93	.93	.96
A 7. BU team	.01	−.20	−.26	−.27	.25	.20	.09	.94	.93	−.94	−.80	−.95	−.95	−.03	.99	−.89	−.83	−.70	−.82	−.95	−.75	.14	.86	.92	−.99	.78	−.94	.21	−.58	−.90	.95	.60	.24	.11	.74	.87	.98
A 8. BU exp	.04	−.98	−1.26	−1.42	1.34	1.05	.43	2.22	.99	−.99	−.96	−1.00	−1.00	.30	.97	−.73	−.65	−.54	−.95	−1.00	−.52	−.11	.70	.85	−.94	.67	−.80	−.06	−.49	−.81	.98	.58	.49	.42	.92	.90	.96
A 9. REG exp	.08	−1.89	−2.61	−2.92	2.78	2.17	.88	4.60	9.68	−1.00	−.95	−.99	−.99	.34	.95	−.68	−.59	−.45	−.93	−.98	−.46	−.05	.64	.79	−.91	.59	−.76	−.02	−.57	−.75	.99	.49	.56	.46	.93	.84	.93
A 10. M&A FTE	.00	.01	.02	.02	−.02	−.02	−.01	−.04	−.07	.00	.94	.99	.99	−.31	−.96	.69	.60	.45	.91	.98	.47	.01	−.65	−.79	.91	−.58	.77	−.03	.60	.75	−1.00	−.46	−.55	−.44	−.91	−.83	−.93
A 11. Sales	−.01	.35	.44	.52	−.51	−.39	−.14	−.81	−1.68	.01	.32	.95	.95	−.56	−.85	.51	.43	.36	.99	.95	.27	.34	−.49	−.71	.80	−.52	.60	.31	.35	.67	−.91	−.52	−.65	−.64	−.99	−.85	−.85
A 12. Closed	.00	.03	.04	.04	−.04	−.03	−.01	−.06	−.13	.00	.02	.00	1.00	−.29	−.97	.74	.66	.55	.95	1.00	.53	.12	−.71	−.86	.94	−.68	.81	.07	.48	.82	−.98	−.60	−.47	−.40	−.92	−.91	−.97
A 13. Industry	−.01	.17	.22	.25	−.24	−.19	−.08	−.39	−.82	.01	.14	.01	.07	−.30	−.97	.73	.65	.53	.95	1.00	.52	.10	−.70	−.84	.94	−.66	.80	.05	.50	.81	−.98	−.57	−.49	−.41	−.92	−.89	−.96
A 14. Region	.00	.00	−.02	−.05	.06	.04	.00	.07	.17	.00	−.05	.00	−.01	.03	.06	.42	.48	.48	−.49	−.28	.63	−.63	−.43	−.15	.04	−.32	.32	−.69	.05	.19	.26	−.11	.86	.98	.65	.13	.05
A 15. CONS	.04	−.77	−.96	−1.02	.93	.76	.34	1.60	3.31	−.03	−.54	−.05	−.28	.01	1.24	−.86	−.80	−.68	−.87	−.97	−.70	.05	.83	.92	−.99	.77	−.91	.11	−.53	−.89	.96	.63	.30	.19	.80	.90	.99
B 2. ADV1	−.01	.21	.22	.21	−.18	−.16	−.08	−.33	−.64	.01	.09	.01	.06	.02	−.29	.09	.99	.92	.59	.75	.96	−.20	−1.00	−.95	.92	−.93	.99	−.30	.35	.96	−.70	−.75	.22	.32	−.42	−.82	−.89
B 3. ADV2	−.02	.26	.26	.25	−.20	−.18	−.10	−.38	−.72	.01	.10	.01	.07	.03	−.35	.12	.15	.96	.52	.68	.98	−.17	−1.00	−.94	.87	−.96	.97	−.27	.24	.95	−.61	−.79	.33	.41	−.33	−.79	−.83
B 4. ADV3	−.01	.21	.16	.16	−.12	−.12	−.06	−.23	−.41	.00	.06	.01	.04	.02	−.22	.08	.11	.09	.48	.59	.95	.04	−.95	−.90	.77	−.98	.89	−.08	−.03	.93	−.45	−.90	.47	.46	−.25	−.79	−.74
B 5. HQ team	.00	.14	.16	.20	−.19	−.14	−.05	−.30	−.61	.00	.12	.01	.05	−.02	−.20	.04	.04	.03	.04	.96	.36	.41	−.58	−.78	.84	−.63	.66	.37	.24	.75	−.88	−.65	−.52	−.55	−.97	−.92	−.89
B 6. HQ exp	.00	.12	.15	.16	−.15	−.12	−.05	−.25	−.52	.00	.09	.01	.04	−.01	−.18	.04	.05	.03	.03	.03	.55	.15	−.73	−.88	.95	−.71	.82	.09	.44	.84	−.96	−.64	−.44	−.38	−.91	−.93	−.97
B 7. BU team	−.01	.07	.07	.06	−.05	−.05	−.03	−.10	−.18	.00	.02	.00	.02	.01	−.10	.04	.05	.03	.01	.01	.02	−.29	−.97	−.86	.78	−.91	.93	−.39	.24	.88	−.49	−.72	.46	.56	−.17	−.67	−.73
B 8. BU exp	.00	.04	.00	.02	−.02	−.02	.01	−.02	−.02	.00	.02	.00	.00	−.01	.01	−.01	−.01	.00	.01	.00	.00	.01	.14	−.08	−.05	−.13	−.18	.99	−.73	.08	.07	−.46	−.17	−.49	−.37	−.34	−.04
B 9. REG exp	.01	−.13	−.13	−.13	.10	.09	.05	.19	.37	.00	−.05	−.01	−.03	−.01	.17	−.06	−.07	−.05	−.02	−.02	−.02	.00	.04	.96	−.90	.96	−.98	.24	−.27	−.97	.66	.80	−.28	−.35	.39	.83	.87
B 16. CONS	.02	−.40	−.41	−.43	.37	.32	.15	.65	1.27	−.01	−.21	−.02	−.12	−.01	.53	−.15	−.19	−.14	−.09	−.08	−.06	.00	.09	.27	−.96	.96	−.97	.02	−.23	−1.00	.78	.86	−.05	−.08	.63	.95	.96
C 5. HQ team	−.01	.14	.17	.18	−.16	−.13	−.06	−.28	−.57	.00	.09	.01	.05	.00	−.22	.06	.07	.05	.04	.03	.02	.00	−.03	−.10	.04	−.85	.96	−.12	.47	.94	−.92	−.70	−.17	−.07	−.74	−.92	−1.00
C 6. HQ exp	.01	−.17	−.14	−.15	.12	.11	.05	.22	.40	.00	−.06	−.01	−.04	−.01	.19	−.06	−.08	−.06	−.03	−.03	−.02	.00	.04	.11	−.04	.05	−.92	−.02	−.01	−.98	.57	.94	−.31	−.29	.42	.89	.84
C 7. BU team	−.01	.21	.23	.23	−.19	−.17	−.09	−.35	−.70	.01	.10	.01	.06	.02	−.30	.09	.11	.08	.04	.04	.03	−.01	−.05	−.15	.06	−.06	.09	−.27	.41	.96	−.78	−.74	.11	.21	−.51	−.85	−.93
C 8. BU exp	.01	.07	−.01	.05	−.05	−.03	.02	−.03	−.02	.00	.06	.00	.00	−.04	.04	−.03	−.03	−.01	.02	.01	−.02	.04	.01	.00	−.01	.00	−.03	.10	−.72	−.01	.11	−.36	−.23	−.55	−.36	−.25	.04
C 9. REG exp	.00	−.01	.12	.11	−.12	−.09	−.05	−.21	−.52	.00	.06	.01	.04	.00	−.17	.03	.03	.00	.01	.02	.01	−.03	−.01	−.04	.03	.00	.04	−.07	.09	.19	−.66	.29	−.47	−.15	−.34	−.11	−.43
C 10. M&A FTE	.00	.01	.01	.01	−.01	.00	.00	−.01	−.02	.00	.00	.00	.00	.00	−.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	−.74	−.88	.11	.13	−.58	−.94	−.94
C 17. Age	.00	−.06	−.09	−.10	.10	.08	.03	.17	.35	.00	−.06	.00	−.03	.00	.12	−.02	−.03	−.02	−.02	−.02	−.01	.00	.01	.05	−.02	.01	−.03	.00	−.02	.00	.01	.43	.54	.40	.88	.80	.93
C 18. Pos. level	.00	−.05	−.04	−.04	.03	.03	.01	.06	.10	.00	−.02	.00	−.01	.00	.05	−.02	−.02	−.02	−.01	−.01	−.01	.00	.01	.03	−.01	.01	−.01	−.01	.01	.00	.00	.00	−.28	−.14	.45	.88	.72
C 19. M&A exp.	.00	.00	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.94	.72	.14	.23
C 20. Cut1	.00	.00	−.01	−.02	.02	.01	.00	.03	.07	.00	−.02	.00	−.01	.01	.01	.00	.01	.01	−.01	.00	.00	.00	.00	.00	.00	.00	.00	−.01	.00	.00	.00	.00	.00	.00	.72	.18	.16
C 21. Cut2	.00	−.13	−.17	−.21	.21	.16	.05	.33	.69	−.01	−.13	−.01	−.06	.03	.21	−.03	−.03	−.02	−.05	−.04	.00	−.01	.02	.08	−.04	.02	−.04	−.03	−.02	.00	.02	.01	.00	.01	.06	.79	.79
C 22. Cut3	.00	−.13	−.13	−.14	.13	.11	.04	.21	.42	.00	−.08	−.01	−.04	.00	.16	−.04	−.05	−.04	−.03	−.03	−.01	−.01	.02	.08	−.03	.03	−.04	−.01	−.01	.00	.01	.01	.00	.00	.03	.03	.95
B 23. VAR(STD)	.01	−.11	−.12	−.14	.12	.10	.04	.21	.43	.00	−.07	−.01	−.04	.00	.16	−.04	−.05	−.03	−.03	−.02	−.01	.00	.02	.07	−.03	.03	−.04	.00	−.02	.00	.02	.01	.00	.00	.03	.02	.02

Notes. This table reports the variance-covariance and correlation matrices for our GSEM approach. The lower half of the matrix reports covariances. The diagonal reports variances. The upper half reports correlations. Reported figures refer to the main model case *ANY* and are not standardized to average marginal effects. Columns and rows labeled "A" ("B", "C") refer to the GSEM regression regarding M&A success (M&A process standardization, M&A advisors). The column numbers refer to the numbered row variables. The acronym ADV1 (ADV2, ADV3) refers to the M&A advisor characteristic sometime (complex, always). The same logic applies to Cut1 (Cut2, Cut3). The abbreviation "exp" refers to experts, while "exp." refers to experience. Please refer to section 3.5 for details on all utilized variables.

Academic Research Survey on M&A

What is this academic research survey about?

- M&A activity
- M&A organization
- M&A processes
- M&A integration
- M&A success

What does this survey cover?

- All regions worldwide
- All industries
- All firm sizes and types

What is in it for you?

1. Be a part of the largest global M&A survey with >400,000 M&A executives
2. Benchmark your firm's M&A activities across regions and industries
3. Learn ways to improve your firm's M&A activities

What do you have to do?

- Please take 10-15 minutes to complete this survey
- Please answer each question to the best of your ability
- Please answer each question considering only your M&A experience at your current firm
- Please feel free to skip questions if necessary

What happens with your information?

- All your responses are absolutely anonymous; therefore, they are strictly confidential
- All your responses will be used for non-commercial academic purposes only
- Survey results will be used in aggregate only: No company or person will be identified, discussed or analyzed individually
- Aggregated survey insights will be published in an academic journal

Please note:

- Optional: Provide your e-mail address and we will share a detailed PDF summary of the survey results with you
- This survey is supported by leading M&A experts to make sure you benefit the most
- Feel free to forward this survey to other experienced M&A professionals

A research project by Prof. Dr. Sönke Sievers
University of Paderborn • Chair of Business Administration, esp. Int. Accounting • Warburger Str. 100 • 33098 Paderborn • Germany
✉ masurvey@mail.uni-paderborn.de (mailto:masurvey@mail.uni-paderborn.de) • ☗ upb.de/accounting (http://upb.de/accounting) • LinkedIn (http://linkedin.com/in/soenke-sievers)

This survey complies with the European General Data Protection Regulation (GDPR). Please find detailed information on data protection and your rights here (https://go.upb.de/AcademicMASurvey)

There are 69 questions in this survey.

Notes. Please note that we aimed to invite more than 400,000 M&A executives to participate in our survey, but were only able to reach 292,559 M&A executives due to technical challenges such as outdated e-mail addresses or spam blocker. Please note that this figure is a reprint of the figure S1 in the online appendix A from Schmitz and Sievers (2020). Please refer to section 3 for a detailed explanation regarding the overlap of this study and its companion paper by Schmitz and Sievers (2020).

TRR 266 Accounting for Transparency

Contact:
Prof. Dr. Caren Sureth-Sloane
Paderborn University
Faculty of Business Administration and Economics
Department of Taxation, Accounting and Finance
Warburger Str. 100, 33098 Paderborn, Germany

trr266@mail.upb.de
www.accounting-for-transparency.de