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SECTION 3. General issues in management

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The benefits of a pre-deal purchase price allocation for acquisition decisions: an exploratory analysis

Abstract

This paper analyzes the benefits of a pre-deal purchasing price allocation (pre-deal PPA), which acquirers have come to integrate into an acquisition process to examine the effects of a potential acquisition on the acquirer's financial statements. The authors take a management perspective and investigate if the tool improves the comprehensiveness and quality of acquisition decisions. Based on an exploratory analysis using the results of semi-structured interviews with 24 accounting professionals from 19 Germany-based companies, the authors conduct a qualitative content analysis to identify the method's benefits in the context of friendly acquisitions. The results suggest that, subject to cost-benefit considerations, a pre-deal PPA increases decision quality and leads to more comprehensive acquisition decisions. Furthermore, the paper proposes several best practice approaches to improve the implementation of a pre-deal PPA.

Keywords: pre-deal PPA, decision comprehensiveness, decision quality, M&A process.

JEL Classification: M40.

Introduction

In spite of recent crises, mergers and acquisitions have gained further importance in corporate practice (KPMG, 2013). Research on the performance consequences of mergers and acquisitions has shown that informed decisions based on comprehensive information about the target have a positive effect on acquisition performance as measured, e.g., by stock returns (Perry and Herd, 2004; Higgins and Rodriguez, 2006; Capron and Shen, 2007). In this context, accounting and management research have emphasized the role of due diligences as a tool to improve management information on an intended transaction (see, e.g., Hitt et al., 2001; Morrow et al., 2007; Elinson and Ruggeri, 2008).

Generally, a due diligence process involves a number of different analyses. In recent years, a so-called pre-deal purchase price allocation (pre-deal PPA) – an indicative procedure comparable to the one required by IFRS 3 or, respectively, SFAS No. 141 – has been increasingly applied in practice to gather further information on the target company's assets and liabilities (e.g. Haller and Reinke, 2009). A pre-deal PPA primarily aims at assessing the accounting impact of the acquisition on the acquirer's financial statements. For this purpose, the acquiring company first identifies all assets and liabilities that it is about to acquire. Second, it conducts an indicative valuation of the target's net assets. By using a pre-deal PPA prior to the actual business combination, acquirers are able to assess how the acquisition will influence their most recent as well as their future financial statements (Devine, 2008).

Accounting literature has, to the best of our knowledge, exclusively looked at post-deal PPAs. Most works focus on describing the procedure and technique of identifying and measuring assets and liabilities, although a few studies also analyze stock price reactions to disclosure on PPAs (e.g. Cohen, 2005; Kimbrough, 2007; Mard et al., 2011; Shalev, 2009). It remains unclear, however, if applying a pre-deal PPA makes sense from a management perspective, i.e. if it has a positive effect on the decision making process leading to an acquisition.

In this paper, we address this question using an exploratory analysis based on 24 guided expert interviews with accounting professionals who are frequently involved in M&A processes. More precisely, we examine the benefits of a pre-deal PPA on acquisition decisions in friendly takeover situations. We analyze these benefits in terms of their effect on decision quality and decision comprehensiveness, i.e. the degree of rationality and extensiveness of the decision process (Fredrickson, 1984; Hough and White, 2003; Atuahene-Gima and Li, 2004). Our results suggest that a pre-deal PPA has benefits for strategic decision-making in acquisition processes. Subject to cost-benefit considerations, it is likely to increase the comprehensiveness as well as the overall quality of acquisition decisions. Finally, we are able to identify several best practices for the application of a pre-deal PPA in corporate practice.

Our paper contributes to the management and accounting literature by providing initial empirical support for the assertion that a frequently used accounting tool like a pre-deal PPA also improves strategic decision-making during an acquisition

process. Conducting a pre-deal PPA seems to add substantial value to the acquisition process, in particular when the acquisition is large in size. This conclusion is important for practice and research alike. It suggests that a stronger integration of a pre-deal PPA into the due diligence process can contribute to the success of acquisitions. In addition, our paper inspires further research aiming at identifying the precise drivers of this positive contribution. We provide the foundation for this research by indicating a set of process characteristics, which influence the effectiveness of a pre-deal PPA. In addition, our paper informs corporate practice on how a pre-deal PPA can be conducted most effectively to obtain positive results.

1. Theoretical background

1.1. The role of decision quality and comprehensiveness in the acquisition process. Acquisitions are among the most crucial strategic decisions that the management of a company faces. Research on the strategy process and strategic decision making has highlighted that the quality of such decisions rises if comprehensive decision processes are employed (Fredrickson, 1984; Hough and White, 2003; Atuahene-Gima and Li, 2004). These processes are of particular value in friendly acquisitions, which can differ from hostile transactions, especially regarding the importance of synergy potential (Kini, Kracaw and Mian, 2004; Sudarsanam and Mahate, 2006).

Comprehensive decision processes are characterized by a large degree of rationality (Fredrickson, 1984; Hough and White, 2003). More precisely, comprehensiveness implies, first, an extensive information search and analysis in new projects or ventures (Dean and Sharfman, 1996; Miller, 2008). Second, comprehensive processes are structured to not only ensure a holistic evaluation of environmental factors but also to derive multiple strategy alternatives, from which management selects and implements the most promising one (Atuahene-Gima and Li, 2004). Finally, comprehensiveness implies that executives search extensively for possible responses and examine multiple explanations for the strategic challenge (Miller, Burke and Glick, 1998). This conclusion does not mean that every additional piece of information increases comprehensiveness. Rather, previous research suggests that the design of the decision process itself can contribute to comprehensiveness (Miller, 2008).

Empirical and theoretical research in the domain has shown that comprehensive processes can improve decision quality, i.e. the satisfaction with the decision process, and consequently firm performance, i.e. the decision outcome (Hough and White, 2003). This

result is mainly due to the fact that comprehensive processes allow decision makers to be more realistic in their evaluation of environmental factors and to take more informed decisions (Fredrickson, 1984; Atuahene-Gima and Li, 2004). Ultimately, this connection increases decision quality, i.e. ensures that the decision caters towards the initial strategic goals of the company and contributes positively to company performance (Amason, 1996).

Other studies have concluded that comprehensive decision making based on extensive information is an important success factor in acquisitions (Perry and Herd, 2004; Higgins and Rodriguez, 2006; Capron and Shen, 2007). These findings suggest that the quality of an acquisition decision increases considerably when more comprehensive decision processes are employed. Consequently, researchers have highlighted the importance of a due diligence as a tool that enhances decision-making comprehensiveness and decision quality in acquisition processes (e.g. Cullinan et al., 2004).

Traditional due diligences, however, focus on providing information on the acquisition target only. The effect of the acquisition on the income statement as well as on the balance sheet of the acquirer, by contrast, is generally not examined as part of a traditional due diligence. A pre-deal PPA conducts exactly this analysis and can therefore add to the comprehensiveness of an acquisition decision, thus positively affecting decision quality and performance.

1.2. Definition and scope of a (pre-deal) purchasing price allocation. International Financial Reporting Standard (IFRS) 3 – Business Combinations describes how an entity accounts for a business combination by using the so-called “acquisition method”, which is the core principle of IFRS 3. The acquisition method consists of four consecutive steps. First, one of the merging companies needs to be identified as the acquirer. Second, the acquirer needs to determine the acquisition date, i.e. the date on which it achieves control over the target. In a third step, assets acquired and liabilities assumed need to be identified and measured. Finally, the remaining amount is recognized as goodwill or, if applicable, a gain from a bargain purchase.

The third step of the acquisition method is often called purchase price allocation (PPA). It is the most complex and time-consuming part of acquisition accounting. The acquiring company needs to identify all assets acquired and liabilities assumed and assess their fair values at the acquisition date. This process is particularly difficult if the acquirer has to identify and measure a large number of intangible assets and contingent liabilities because, for intangible

assets, such as patents or customer lists, observable market prices do not exist. Instead, the acquirer needs to rely on valuation methods that introduce additional complexity and costs to the PPA process. As a result, when conducting a PPA, acquirers face a lengthy and resource-intensive process. IFRS 3.45 acknowledges that such difficulties may arise and allows acquirers a measurement period of twelve months during which companies can report provisional PPA values in their financial statements. Thereafter, previously reported values are adjusted retrospectively as new information on the fair values at the acquisition date is incorporated. In addition, IFRS 3 requires companies to disclose a wide range of information on the acquisition. The main aim of these disclosure requirements is to enable investors as well as other users of financial statements to better assess the nature and financial effect of an acquisition.

In order to cope with this lengthy task that IFRS 3 imposes, acquirers have – in practice – started to include an indicative valuation of the target's assets and liabilities into the acquisition process (e.g. Haller and Reinke, 2009). Such a pre-deal PPA allows an acquirer to analyze the impact of the transaction on its financial statements before the transaction takes place. It thus constitutes an accounting tool, which helps an acquirer to smoothen the complex process of the post-acquisition allocation of the purchase price. Although conducting a pre-deal PPA imposes additional costs on an acquirer, it provides the acquiring management with indicative values on the target's assets and liabilities that not only help in the post-acquisition accounting but also when deciding on the acquisition, in particular to determine the effect of the transaction on the financial statements of the acquirer. As such, a pre-deal PPA may be seen as a precursor of the post-deal PPA as required by IFRS and US GAAP, respectively.

Two streams of research on post-deal PPAs can be identified: descriptive studies and impact studies. Descriptive work focuses on analyzing the procedure and technique of identifying and measuring assets and liabilities (e.g., Cohen, 2005; Mard et al., 2011, Hubbard, 2010). In addition, these studies aim to identify the major (intangible) assets acquired and, thus, the value drivers of acquisitions. They are often conducted by consulting companies (e.g. Intangible

Business, 2008; Houlihan Lokey, 2012). Descriptive studies also analyze how the acquirer has allocated the purchase price and generally conclude that intangible assets are of high importance in business combinations (Frey and Oehler, 2009; Glaum et al., 2009).

Impact studies have mainly focused on business combinations under US GAAP. As US GAAP regulations hardly differ from those under IFRS, the results of these studies are relevant for IFRS reporting entities as well. Impact studies examine investors' perceptions of business combinations and provide evidence that share prices increase when high quality disclosures are provided and when the acquirer recognizes large amounts of intangible assets other than goodwill. Thus, they also conclude that intangibles are key to the assessment of an acquisition (e.g., Kimbrough, 2007; Shalev, 2009).

Both from an accounting and from a management perspective, pre-deal PPAs have, to the best of our knowledge, not received any attention in the literature. Thus, the question remains if a pre-deal PPA is only applied to ease the process of conducting a post-deal PPA or if its application has a positive effect on the quality of the acquisition decision, both from a procedural as well as from an outcome perspective. This research gap is surprising since several studies indicate that comprehensive, i.e. more informed, decisions on acquisitions positively impact acquisition performance.

2. Methodology

Due to the lack of prior literature on the topic, we chose an exploratory qualitative research design to examine the effects of a pre-deal PPA on managerial decision-making in friendly acquisitions. We conducted 24 guided expert interviews with accounting professionals. The interviewees come from 19 different industrial, private equity, consulting and auditing companies based in Germany and are employed at different hierarchical levels in their respective companies, from associate to director. Table 1 presents job clusters and job hierarchies of our interview partners, while Appendix A provides a list of interviewees by industry and line of business.

Table 1. Overview of interviewees

Panel A: Job cluster				
Job cluster	Industry / Private equity	Consulting	Auditing / Others	Total
Number of interviews (%)	14 (58%)	7 (29%)	3 (13%)	24 (100%)
Panel B: Job hierarchy				
Job hierarchy	Senior manager / partner / managing director	Head of department / project leader	(Senior-) associate / consultant	Total
Number of interviews (%)	12 (50%)	6 (25%)	6 (25%)	24 (100%)

We chose semi-structured interviews as a method of data collection as they enabled us to fully access the experiences of the interviewed accounting experts while giving the experts room to comprehensively communicate their perceptions on relevance, functions and organizational design of a pre-deal PPA. The interview guideline that we used was developed under consideration of the criteria mentioned by Flick (2007): First, we included both unstructured as well as semi-structured questions to

ensure that the interviewer does not manipulate the interview process. Second, we employed open questions that did not restrict the interviewed experts in their answers. Third, we included explicit references to pre-deal PPA processes in which the experts had been involved. Finally, we included a personal reference frame to ensure an emotional involvement of the interview partners. Figure 1 shows the structure of the interview guideline described above.

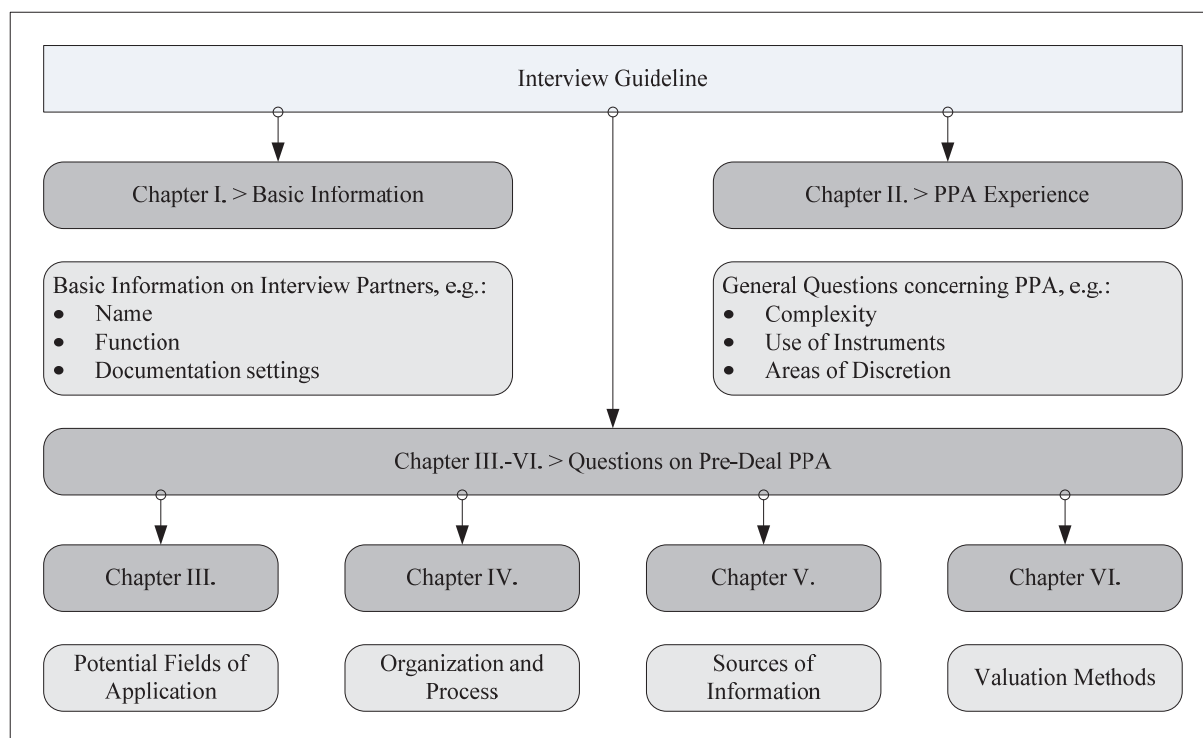


Fig. 1. Interview Guideline

We applied two main criteria to select interviewees. On the one hand, we made sure that the interviewed experts were knowledgeable in the field of pre-deal PPAs. We considered those accounting professionals to be experts who had worked in the field of mergers and acquisitions for several years and who had gained specific knowledge, which gives them an exclusive status within their organizations. In addition, we wanted to gain insights into pre-deal PPAs from different perspectives. Thus, we selected accounting professionals from publicly traded industrial companies, but also from private equity, consulting and auditing firms as these companies assist acquirers in carrying out business combinations and, thus, have built a high level of expertise concerning methods and procedures of a pre-deal PPA. By approaching the research questions from different angles, we aimed to obtain a comprehensive picture of the benefits of a pre-deal PPA, ensuring "theoretical saturation" (Flick, 2007). We analyzed the information gained from the interviews using qualitative content analysis (Mayring, 2007). By

quantifying frequencies and allocating responses, we structured the transcribed interviews and identified similarities in the answers.

3. Results

The interviewees highlight two main benefits of including a pre-deal PPA in the acquisition process. These benefits can be clustered broadly into positive effects on the comprehensiveness of the acquisition process as well as on the quality of the acquisition decision, both from a process and from an outcome perspective. In addition, the feedback we received during the interviews hinted at several best practice approaches regarding the successful implementation of a pre-deal PPA. Our results are presented as following.

3.1. The benefits of a pre-deal PPA for decision comprehensiveness. The first major benefit of a pre-deal PPA for the management of the acquiring company lies in the in-depth analysis of issues relevant for the acquisition decision. The

interviewed experts stated that a pre-deal PPA provides a systematic procedure for analyzing the intended deal. A division manager at a consumer services company points out:

“A pre-deal PPA, in my view, is interesting [because] it is always helpful if you systematically gather information before the transaction actually takes place.”

Another interviewee, a managing director at a consultancy, highlights a similar point:

“In my view, the objective of a pre-deal PPA is not simply to prepare proper accounting for the transaction, if [the acquisition] takes place. More importantly, it is a management tool that helps you to analyze in a structured way what you buy.”

This structured process, to which the pre-deal PPA caters, lays the foundation for more rational decision-making in the acquisition process, thus increasing decision comprehensiveness. Additionally, the experts assert that a pre-deal PPA enables the managers, which are involved in the acquisition process, to more widely consider the implications of a deal as well as to assess the levers, which can make the acquisition a success or a failure. Thus, a pre-deal PPA fosters the search for underlying influence factors and leads to a more comprehensive and less biased evaluation of the consequences of a transaction. A director of the accounting policy department at an industrial company underlines this aspect:

“[A pre-deal PPA] clearly is an instrument, which results in questions [about the consequences of the transaction] that need to be addressed before the closing takes place. Otherwise, these questions would only be addressed later [i.e. after the acquisition].”

A managing director at a consultancy further underscores this reasoning:

“I am being quite honest with you, and this is also what I am telling my clients, that a pre-deal PPA is most appropriate if you want to comprehensively analyze the financial and management implications [of the acquisition]. Once the deal is closed and I account for it, I put in a lot of effort, and probably also some data mining, to do the post-deal PPA. But, by then, you cannot change the economics of the deal any more. That is exactly why I believe this is the role of a pre-deal PPA. That is, if you conduct one, you are able to decide more timely if a transaction really makes sense and if the transaction is manageable in the way that I

foresee it or if I have, or must have, certain levers I have to adjust to in the end get a good result.”

The experts also argue that a pre-deal PPA has the advantage of providing information early in the acquisition process. This benefit again positively influences the comprehensiveness of acquisition decisions. For example, the head of internal audit at a financial services company states:

“And more importantly, and that is also the question raised by the boards [i.e. management and supervisory board], how will this develop in the future? Thus, any information I have on the planning, the strategy, new product ideas, new markets and so on, this is much, much more important.”

A director at a Big Four auditing company further underscores this argument:

“There are two kinds of companies. Those, who have never conducted a PPA, and those who have. And among those, who have never conducted a PPA, there are also two kinds. Those who are naïve and those who are more risk averse. And the ones that are risk averse just say: Before I make any mistakes, I employ specialists. And they try to estimate the effects of the deal early on.”

In summary, these arguments point towards significant benefits of a pre-deal PPA in the acquisition process. Particularly, a pre-deal PPA increases the comprehensiveness of acquisition decisions: (a) because it provides a structured process for analyzing the deal; (b) because it helps to consider important implications and levers of the deal; and (c) because it generates important pieces of forward-looking and confirmatory information early in the process.

3.2. The benefits of a pre-deal PPA for decision quality. Our expert interviews have also shown that a pre-deal PPA has a positive effect on the quality of acquisition decisions. The purchase price can be seen as one of the most significant indicators for the overall decision quality achieved in the deal. Our results reveal that a pre-deal PPA has a positive influence on the quality of an acquisition decision in that it helps to avoid potential overpayment for the target. A division manager at a private equity group refers to this effect:

“I think a pre-deal PPA provides an opportunity to think about the purchase price again. That is, when I am in a negotiation, and I pay for certain expectations on the future, [which means I am likely to] overpay in that context, and ask myself: Why do I conduct [this transaction]? And I examine this more intensely already in the acquisition process.”

For example: What does the customer base look like? How do I measure the customer base? The pre-deal PPA provides a good opportunity to assess these things more profoundly and to better align the negotiations on the purchase price.”

This benefit of a pre-deal PPA seems to be of particular importance when intangible assets are involved in the transaction, as the division manager goes on to state:

“Especially if I buy a company, which I not only intend to compensate for its strategy or its market position, but because the company has certain intangible assets. In that case, a pre-deal PPA is a good way of verifying [their actual value].”

These arguments also seem to hold true from a board of director’s perspective, which is reflected in the following comments by a managing director of a consultancy:

“By the way of a pre-deal PPA, I am forced to think [about the acquisition] in detail, also in quantitative terms. That is, I am not making these decisions solely from a strategic perspective.”

The interviewee continues to argue:

“Every CEO can stand up and talk about some unspecific synergies of the deal and how this provides great opportunities to expand the customer base and so on. But if the CFO is sitting next to him and cannot back this up with data, the transaction won’t work out.”

Combined, these arguments suggest that a pre-deal PPA leads to a clearer valuation of important determinants of the final transaction price, thus improving the decision quality. In the end, this higher decision quality can potentially increase the return achieved in a deal, i.e. by avoiding overpayment. The above cited managing director summarizes these arguments:

“Of course, I walk into a transaction and think to myself, I am buying a great customer base. But when I have to do the measurement and look into the details of this customer base and realize, oops – about those clients – first, none of the missatisfied with me and, second, most [of them] do not generate much revenue. Then, the transaction has been put into perspective. Then, a pre-deal PPA really pays off.”

Overall, we argue that a pre-deal PPA possesses important benefits for strategic decision making in an acquisition process. By ensuring a more comprehensive decision process it has the potential to increase the overall quality of an acquisition decision. Particularly, it allows the acquirer to conduct a more substantial assessment of the

purchase price based on a comprehensive, quantitative analysis of the transaction’s potential effects.

3.3. Best practices for an optimized application of a pre-deal PPA in practice. Our analyses revealed several best practice approaches for improving the implementation of a pre-deal PPA in practice. First of all, an unqualified recommendation to include a pre-deal PPA in the acquisition process cannot be given. A partner at a consulting and audit company explains that it is mostly in large acquisitions that the services of his company are demanded:

“The larger an acquisition, the more will the acquirer examine the data and work on the issue of a pre-deal PPA.”

The interviewees state that some companies have defined quantitative values above which they include a pre-deal PPA in the acquisition process. An increasing complexity of an acquisition may thus be an indicator that points to the need of a pre-deal PPA. Complexity may be given if the identification and valuation of intangible assets and contingent liabilities confront the acquirer with considerable challenges. Benefits, on the other hand, may be harder to measure in advance. Thus, the cost-benefit considerations seem to be a subjective matter and, as a director at a Big Four audit firm states, a matter of experience with acquisitions:

“And some of them enter an acquisition process blindly and naively and are surprised afterwards about the effects of the transaction. Like I said, there is a learning curve. If one transaction had been done poorly and was full of surprises, many companies think about what they can do better the next time.”

Other best practices concern procedural aspects. In order to serve its intended purpose, a pre-deal PPA should be integrated into the due diligence process. In a due diligence process, a company aims to obtain relevant information to value the target (see e.g. Hitt et al., 2001; Morrow et al., 2007; Elinson and Ruggeri, 2008). According to the interviewees, integrating the pre-deal PPA into the due diligence process offers synergies and makes sense both from a procedural and an outcome perspective. Consequently, the interviewees assert that the due diligence report should not only contain information on the acquisition target but also on the effects of the acquisition for the acquirer. The management of the acquiring company can subsequently use this information in an early stage of the negotiations.

In particular, the interviewed experts regard the pre-deal PPA and the financial due diligence as closely

related. When conducting the financial due diligence, the acquirer analyzes the target's accounting systems in detail to come up with a comprehensive review of the target's financial position. Determining the sustainability of cash flows, for example, is an integral part of both the valuation of the target as a whole, performed as part of the due diligence, and fair value considerations concerning intangible assets, conducted in the process of a pre-deal PPA. The interviewees point out that, in practice, a pre-deal PPA is – to a certain extent – already integrated into the financial due diligence process. A senior manager at a Big Four audit company underlines this aspect:

“Typically, we get our mandates this way. And that is a very important point if a pre-deal PPA is supposed to be interesting. The first step is a due diligence. In the course of a due diligence, we process the data that are the basis for our later work. In that regard, the customer has an advantage in that we don't have to analyze the data again.”

A corporate finance partner at a Big Four audit firm adds the following:

“Of course, the main field of application is in large transactions. However, by now there is a strong trend towards including a pre-deal PPA in the due diligence process such that a due diligence is now offered including the pre-deal PPA. And given that due diligences are also done for smaller and medium-sized transactions, certain pre-deal PPA considerations are standard.”

Nevertheless, to enfold its full benefits, a pre-deal PPA requires additional information as a managing director of a consultancy points out:

“Connecting the pre-deal PPA with financial due diligence sounds promising. Nevertheless, for a pre-deal PPA, I also need a link to people who look at the target's marketing organization – and a link to people who look at technologies, patents and brands.”

We also asked the experts about the most feasible ways of collecting the necessary information. Concerning the tools and sources of information, our interview partners considered checklists and interviews as being most appropriate. A division manager at a private equity group stated for example:

“Actually, I would start with the financial statements and see which net assets I have and relate them to the purchase price I would be willing to pay. Then, I would proceed along a checklist on typical intangible assets that could exist.”

A division manager at an international services company states:

“Interviewing people who know the business is pivotal for the valuation – that is, for both corporate valuations as well as for PPAs. You get relevant information faster when you interview people.”

In addition, the experts regard benchmarking as a potentially relevant instrument for validating information that was collected during a pre-deal PPA. Benchmarking typically requires access to databases, industry associations or publications and is appropriate to assess the plausibility of results which were brought up in a pre-deal PPA. Nevertheless, the interviewees stress that information on comparable transactions is difficult to obtain. For example, a partner at an audit and consulting firm says:

“You can indeed do industry comparisons. But that's not that simple in Germany. If you are working on a certain deal, that deal has not been done before in that form.”

Finally, we asked the experts about the valuation methods that should be employed in a pre-deal PPA. This issue is most relevant when a target controls a relatively large number of intangible assets that need to be measured using complex valuation methods. In general, the interviewees state that valuation methods employed in a pre-deal PPA do not differ from those employed in a post-deal PPA. They point out that using different methodologies would distort both internal as well as external comparability of the results. However, the experts encourage acquirers to compare values based on different valuation methods to check their assessments. Generally, the interviewees suggest employing standard valuation procedures but also aggregations. As a director at a Big Four audit firm states, the acquirer should, e.g., assess patent or brand values in bundles if the parameters used in the valuation do not differ significantly:

“We always use standard methods so we can employ the same techniques in the subsequent post-deal PPA. However, what you do is aggregation. You don't value 50 brands separately but en bloc – just because you don't have detailed information on every brand.”

While aggregations are used for outputs, the experts refrain from standardizing and aggregating input factors, as another director at a Big Four audit firm explained:

“There are actually no standardizations because – interestingly – every time we do a pre-deal PPA, we find intangible assets that we have not seen before.”

In summary, these recommendations and best practices can help improve the application of pre-deal

PPA in practice and contribute towards better utilizing the method's benefits described above. In particular, we note that: (a) a pre-deal PPA should only be included subject to cost-benefit considerations; (b) a pre-deal PPA, if included, should be integrated into the financial due diligence process; and (c) information gathering is a challenge that can be overcome by using checklists and interviews. A pre-deal PPA is to follow the same steps and procedures as a post-deal PPA, although certain simplifications or aggregations can be made.

Conclusion

Based on 24 guided expert interviews, we examined whether conducting a pre-deal PPA improves the comprehensiveness and quality of friendly, related acquisition decisions. A pre-deal PPA is a tool that is to smooth the difficult task of accounting for an acquisition by providing prior to the acquisition indicative valuation results of the assets to be acquired and the liabilities to be assumed. In particular, we aimed to shed light on the benefits, functions as well as processes of a pre-deal PPA with regard to its influence on decision quality.

As an overall result, we find that a pre-deal PPA helps the management to improve the comprehensiveness of its decisions. That is, a pre-deal PPA provides management with decision-relevant information both on the target and the effect of the potential acquisition on the acquirer's financial statements. A pre-deal PPA increases comprehensiveness: (a) by employing a structured process for analyzing the transaction, (b) by helping management assess important effects and potential levers of the deal; and (c) by generating forward-looking and confirmatory information early in the acquisition process. In addition, we find that, by ensuring a more comprehensive decision process, a pre-deal PPA can help improve the overall quality of an acquisition decision. Particularly, it allows the acquirer to determine more substantially the purchase price based on a comprehensive, quantitative analysis of the transaction's potential effects and, thus, to avoid overpaying for the target.

Furthermore, we assessed best practices to employ a pre-deal PPA. Foremost, a decision on whether or not to include a pre-deal PPA in the acquisition process should be subject to cost-benefit considerations. The larger and the more material a

transaction, the more likely is a pre-deal PPA to unfold its benefits. Concerning procedural aspects, we suggest including a pre-deal PPA into the financial due diligence process since the two processes are closely linked. They both aim at determining future cash flows, which are relevant for deriving the acquisition price and for an indicative valuation of net assets acquired. Finally, we note that the sourcing of information remains a challenge in a pre-deal PPA. Using checklists and conducting interviews can help the acquirer to gather sufficient and relevant information.

Our study is subject to several limitations: Qualitative research, unlike quantitative, does not have generally accepted criteria to measure objectivity, reliability and validity of data (Mruck and Mey, 2000). Rather, as Ahrens and Chapman (2006) argue, qualitative research has always a notion of subjectivity (see also Maxwell, 1996). We aim to ensure the quality of our research in two ways. First, we employ a standardized method of investigation as well as content analysis in order to avoid a researcher bias. In addition, we selectively include experts of the interviews when presenting our results in order to make our results more transparent, which in turn is a benefit of our qualitative research approach. A further limitation of our study is that we exclusively focused on the analysis of friendly acquisitions. As these may significantly differ from hostile takeovers, we encourage further research to also study the effect of pre-deal PPA in this context.

Given the lack of prior research on the subject of a pre-deal PPA, we consider an exploratory, qualitative analysis such as ours a valuable first step that has implications for future research. In the field of accounting, our findings indicate the importance of obtaining relevant and reliable information on a target for both external as well as internal reporting purposes. For strategic management, the results imply that methods used in other disciplines can have an effect on strategic outcomes such as the quality of a strategic acquisition or merger decision. We thus encourage more interdisciplinary research to enable integrative frameworks for strategic decision-making.

References

1. Ahrens, T., and C.S. Chapman (2006). Doing qualitative field research in management accounting: Positioning data to contribute to theory. *Accounting, Organizations and Society*, 31 (8), pp. 819-841.
2. Amason, A.C. (1996). Distinguishing the effects of functional and dysfunctional conflict of strategic decision making: Resolving a paradox for top management teams, *Academy of Management Journal*, 39 (1), pp. 123-148.
3. Atuahene-Gima, K., and H. Li. (2004). Strategic decision comprehensiveness and new product development outcomes in new technology ventures, *Academy of Management Journal*, 47 (4), pp. 583-597.

4. Capron, L., and J.C. Shen (2007). Acquisitions of private vs. public firms: Private information, target selection, and acquirer returns. *Strategic Management Journal*, 28 (9), pp. 891–911.
5. Cohen, J. (2005). *Intangible assets: Valuation and economic benefits*, Hoboken: Wiley.
6. Cullinan, G., J.M. Le Roux, and R.M. Weddigen (2004). When to walk away from a deal, *Harvard Business Review*, 82 (4), pp. 1-11.
7. Dean, J.W., and M.P. Sharfman (1996). Does decision process matter? A study of strategic decision-making effectiveness, *Academy of Management Journal*, 39(2), pp. 368-396.
8. Devine, M.S. (2008). Forecasting post-combination earnings, *Journal of Accountancy*, 206 (6), pp. 48-52.
9. Elinson, S. and C. Ruggeri (2008). M&A due diligence comes to fore. *Financial Executive*, 24 (1), pp. 28-31.
10. Flick, U. (2007). *Qualitative Sozialforschung. Eine Einführung (Qualitative Social Research. An Introduction)*, 3rd ed, Reinbek bei Hamburg: Rowohlt.
11. Frey, H., and A. Oehler (2009). Bilanzierung und Bewertung immaterieller Vermögenswerte im Deutschen Aktienindex DAX der Jahre 2005 bis 2007 (Recognition and measurement of intangible assets by DAX-companies between 2005 and 2007). *Finanz-Betrieb* 2009, pp. 316-323.
12. Fredrickson, J.W. (1984). The comprehensiveness of strategic decision processes: Extension, observations, future directions, *Academy of Management Journal*, 27 (3), pp. 445-466.
13. Glaum, M., D.L. Street, and S. Vogel (2007). *Making acquisitions transparent: An evaluation of M&A-related IFRS disclosures by European companies in 2005*, Frankfurt am Main: Moderne Wirtschaft.
14. Haller, A., and R. Reinke (2009). Immaterielle Vermögenswerte im Rahmen der Purchase Price Allocation bei Unternehmenszusammenschlüssen nach IFRS – Ein Beitrag zur Best Practice (Intangible assets in a purchase price allocation according to IFRS – A contribution to developing a best practice). *Zeitschrift für betriebswirtschaftliche Forschung* Supplement 60/09.
15. Higgins, M.J., and D. Rodriguez (2006). The outsourcing of R&D through acquisitions in the pharmaceutical industry, *Journal of Financial Economics*, 80 (2), pp. 351-383.
16. Hitt, M.A., J.S. Harrison, and R.D. Ireland (2001). *Mergers and acquisitions: Creating value for stakeholders*, New York: Oxford University Press.
17. Hough, J.R., and M.A. White (2003). Environmental dynamism and strategic decision-making rationality: An examination at the decision level, *Strategic Management Journal*, 24 (5), pp. 481-489.
18. Houlihan Lokey (2012). *2011 purchase price allocation study*. Accessed January 29, 2013, available at: http://www.hl.com/email/pdf/2011_Houlihan_Lokey_PPA_Study.pdf.
19. Hubbard, D.W. (2010). *How to measure anything: Finding the value of intangibles in business*, 2nd ed. Hoboken: Wiley.
20. Intangible Business (2008). *International IFRS 3: An analysis of the application of IFRS 3: Business combinations*. Accessed January 29, 2013, available at: <http://www.intangiblebusiness.com/Reports/International-IFRS-3~1175.html>.
21. Kimbrough, M.D. (2007). Do investors rely on purchase price allocation disclosures? *Harvard Business School Working Paper*.
22. Kini, O., W. Kracaw, and S. Mian (2004). The Nature of Discipline by Corporate Takeovers, *Journal of Finance*, 59, pp. 1511-1552.
23. KPMG (2013). 2013 M&A outlook survey: Executives expect M&A market to be active in the year ahead. Accessed January 29, 2013, available at: <https://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/outlook-survey-MA-2013.pdf>.
24. Mard, M.J., J.R. Hitchner, and S.D. Hyden (2011). *Valuation for financial reporting*, 3rd ed., Hoboken: Wiley.
25. Maxwell, J.A. (1996). *Qualitative research design: An interactive approach*, Thousand Oaks: Sage.
26. Mayring, P. (2007). *Qualitative Inhaltsanalyse (Qualitative content analysis)*, 9th ed., Weinheim: DSV.
27. Miller, C.C. (2008). Decisional comprehensiveness and firm performance: Towards a more complete understanding, *Journal of Behavioral Decision Making*, 21 (5), pp. 598-620.
28. Miller, C.C., L.M. Burke, and W.H. Glick (1998). Cognitive diversity among upper-echelon executives: Implications for strategic decision processes, *Strategic Management Journal*, 19 (1), pp. 39-58.
29. Morrow, J.L., D.G. Sirmon, M.A. Hitt, and T.R. Holcomb (2007). Creating value in the face of declining performance: Firm strategies and organizational recovery. *Strategic Management Journal*, 28 (3), pp. 271-283.
30. Mruck, K., and G. Mey (2000). Qualitative research in Germany. *Forum: Qualitative Social Research* 1 (1), Art. 4. Accessed January 29, 2013, available at: <http://nbn-resolving.de/urn:nbn:de:0114-fqs000148>.
31. Perry, J.S., and T.J. Herd (2004). Mergers and acquisitions: Reducing M&A risk through improved due diligence, *Strategy & Leadership*, 32 (2), pp. 12-19.
32. Shalev, R. (2009). The information content of business combination disclosure level, *The Accounting Review*, 84 (1), pp. 239-270.
33. Sudarsanam, S. and A.A. Mahate (2006). Are friendly acquisitions too bad for shareholders and managers? Long-term value creation and top management turnover in hostile and friendly acquirers, *British Journal of Management* 17 (S1), pp. S7-S30.

Appendix

Table 2. Companies of interviewees

Firm ID	Industry / Line of business	Publicly traded	Number of interviews
1	Big Four audit company	No	1
2	Big Four audit company	No	1
3	Big Four audit company	No	1
4	Big Four audit company	No	1
5	Consultancy	No	1
6	Consumer products	DAX	1
7	Energy	DAX-subsiidiary	1
8	Energy	DAX-subsiidiary	1
9	Financial services	DAX-subsiidiary	1
10	Industry Association	No	1
11	Law practice / auditing / consulting	No	1
12	Law practice / auditing / consulting	No	1
13	Law practice / auditing / consulting	No	1
14	Media	Yes	2
15	Pharmaceutical	DAX	1
16	Private equity	Yes	1
17	Steel	DAX	3
18	Telecommunication	DAX	2
19	Tourism	MDAX	2