The Differential Effect of Public vs. Private Target Employee Reviews on Acquisition Outcomes: Evidence from Glassdoor.com

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Abstract

We utilize employee reviews from Glassdoor.com to investigate the role of target firm employees and the impact of their opinion-sharing on corporate mergers and acquisitions (M&A) activities. Our findings indicate that, for private targets, employee ratings positively influence merger outcomes, whereas the effect is reversed for publicly listed targets. Our evidence supports two channels to explain these effects: the information channel and the employee satisfaction channel. Additionally, we find that catering to the needs of socially responsible institutional investors represents another plausible channel. In subsequent analysis, we delve into employee sentiment by parsing employee comments using ChatGPT and natural language processing (NLP) tools. Our results show that target firm employee sentiment positively influences both the likelihood of M&A completion and the overall M&A outcomes.

Keywords: Employee review, Mergers and Acquisitions, Information asymmetry, Employee satisfaction, Socially responsible investors

EFM Classification Codes: 160; 150; 120; 210

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1 Introduction

The role and impact of employees in mergers and acquisitions (M&As) have been subjects of prolonged and intense debate, with M&A often regarded as a critical juncture in a firm's trajectory (Fuller et al., 2002; Hackbarth and Morellec, 2008). Employee-related policies exhibit considerable variations between publicly listed and private firms, a phenomenon known as the "listing effect" (Faccio et al., 2006). Factors such as organizational hierarchy, firm size, culture, and working style can differ significantly (Aslan and Kumar, 2011). Extant literature predominantly examines the effects of employee-related policies, including employee protection regulations and workforce safety measures, without considering employees in decision-making process or as individuals with their own perspectives (Bai et al., 2020; Cohn et al., 2021; Dessaint et al., 2017).

Between 2008 and 2023, 66% (2,538 out of 3,850 deals) of all the US acquisitions involved unlisted targets, constituting 59% ($12,765 million out of $21,579 million) of the aggregate deal value. During this period, the United States has progressively shifted from the employment-at-will doctrine toward providing workers with greater employment protections (Bai et al., 2020). In recent decades, both academia and policymakers have widely concurred that returns on acquiring private targets are significantly higher than those on acquiring publicly listed target firms (Officer, 2007). Conversely, Jaffe et al. (2019) have found no evidence to suggest that unlisted targets are sold at a discount. Regardless of whether discounts on private targets exist, significant differences between private and public targets are evident, particularly from the perspective of employees. Publicly listed firms are generally more compliant with employment protection laws compared to privately held firms (Slutzky, 2021).

In this paper, we utilize employee reviews from Glassdoor.com, the largest platform where current and former employees anonymously evaluate companies, to investigate the role of employees and the impact of their opinions on corporate mergers and acquisitions activity. Specifically, we examine employees' perspectives on public and private targets separately. We exploit both employee ratings and employee reviews by parsing each piece of employee comments using ChatGPT and natural language processing (NLP) tools. Employee reviews could influence M&A outcomes through at least two channels: the information channel and the employee satisfaction channel.

Employee reviews provide valuable insights into their opinions about their firms and their overall job experiences. Organizations place significant value on employee feedback and strive to create an improved workplace environment. According to Dube and Zhu (2021), firms notably increase their discussion of employee-related issues in standalone Corporate Social Responsibility (CSR) reports following employee reviews. An illustrative example is Procter & Gamble, one of the largest American multinational consumer

goods corporations, which explicitly lists the recognition of "Best Places to Work" under its "Awards and Recognition" section on its global corporate website[1]. This listing serves to highlight the company's achievements in garnering employee recognition. Furthermore, Glassdoor reviews encompass various dimensions of a firm, including innovation capacity, workplace safety, operational conditions, and organizational culture. For instance, feedback from software developers or drug chemists at a Silicon Valley startup can provide indirect insights into the firm's research progress. Since the open stock market assimilates such information (Capron and Shen, 2007), employee reviews contribute to reducing information asymmetry more significantly for private companies than for public ones. This reduction in asymmetry can lead to more exploitative outcomes (Gao et al., 2018).

Employee reviews not only disclose firm-specific valuable information, but also directly reflect different levels of employee satisfaction. Dube and Zhu (2021) have demonstrated that corporations respond to Glassdoor ratings and employee reviews pertaining to their own firms. Compliance with these ratings and reviews evidently incurs costs. Public firms, which are subject to heavy government regulation, tend to incur higher costs in maintaining employee satisfaction compared to private firms, which operate more on the at-will employment principle. Consistent with the findings of Slutzky (2021), we posit that public firms incur greater expenses than private firms to achieve equivalent levels of employee satisfaction[2].

Employee attitudes toward mergers and acquisitions are crucial determinants of deal outcomes. An additional piece of anecdotal evidence is the Sprint-Nextel merger, where employee dissatisfaction and integration challenges were significant factors contributing to the failure of the merger[3]. In August 2005, Sprint acquired a majority stake in Nextel Communications for $37.8 billion in stock, marking one of the largest M&A deals in the U.S. history[4]. The merger positioned the combined entity as the third-largest telecommunications provider, behind AT&T and Verizon[5]. However, shortly after the merger, numerous Nextel executives and mid-level managers exited the company, citing cultural differences and incompatibilities[6]. Nextel employees

[1]See `https://www.pghongkong.com/en-us/awards-and-recognition/` for details.

[2]The ownership structure theory further supports the positive market reaction observed when acquiring private firms. Following the merger, the ownership of the private target becomes fully concentrated under the acquirer, granting 100% control to the acquirer's shareholders. This concentrated ownership structure incentivizes large blockholders to actively monitor the post-merger firm's performance. Such enhanced monitoring mitigates free-rider problems, fostering improved operational efficiencies and increasing firm value (Boubakri et al., 2005; Denis et al., 1997; Demsetz and Lehn, 1985; Shleifer and Vishny, 1986; Kang et al., 2018).

[3]See more details: `https://www.nytimes.com/2008/07/08/technology/08sprint.html`

[4]See more details: `https://www.sec.gov/Archives/edgar/data/101830/000119312505221568/d10q.htm`

[5]See more details: `https://www.justice.gov/archive/opa/pr/2005/August/05_at_409.htm`

[6]In detail, Sprint's corporate culture was characterized by bureaucracy, whereas Nextel fostered a more entrepreneurial environment. Additionally, Nextel was more attuned to customer concerns, while Sprint had a poor reputation for customer service, experiencing the highest churn rate in the industry. These cultural discrepancies exacerbated integration issues across various business functions.

frequently needed approval from Sprint's higher management to implement corrective actions, and the lack of trust and rapport often resulted in such measures not being approved or executed effectively.

Additionally, acquiring firms may place significant importance on employee reviews of the target company to cater to the needs of socially responsible institutional investors. Publicly listed acquirers bear the responsibility of meeting the demands of their shareholders, which encompass not only profit-related metrics but also attributes related to social responsibility.

In this paper, we begin by calculating the cumulative abnormal returns (CARs) associated with mergers and acquisitions for both private and public samples. The CAR for the private sample is 1.8%, while the CAR for the public sample is -1.0%. These results are consistent with findings in the existing literature (Officer, 2007; Jaffe et al., 2019).

We subsequently examine the impact of employee ratings on M&As initiated by public firms, specifically targeting either private or public firms. Our analysis reveals a positive effect of employee ratings on M&A deals involving private firms, with an economic magnitude of 0.9 percentage points (calculated as 0.01*0.879) when employee ratings increase by one standard deviation. Conversely, our findings indicate a negative effect of employee ratings on M&A deals involving public firms, particularly in terms of short-term cumulative abnormal returns and synergies, with an economic magnitude of 0.8 percentage points (calculated as -0.01*0.808) and 0.7 percentage points (calculated as -0.009*0.808), when employee ratings increase by one standard deviation, respectively.

These results align with the two channels proposed earlier. For the information channel, we first observe that deal outcomes improve when public acquirers select private targets with Glassdoor reviews compared to privately held target firms without any employee review information. Regarding the employee satisfaction channel, we verify our findings using deal premiums, noting that deals involving targets with favorable public employee ratings exhibit a greater potential for restructuring. To ensure robustness, we conduct a difference-in-differences (DiD) test using the staggered implementation of Right-to-Work laws for public targets, which confirms the corresponding reduction in M&A CARs and synergies.

Moreover, to assess whether public acquirers consider employee attitudes in target firms to address the needs of socially responsible institutional investors, we further examine the effect of employee ratings on deal outcomes within acquirer groups characterized by high and low shares of socially responsible investments (SRI). Socially responsible investors are identified in accordance with the methodology outlined by Farroukh et al. (2023). Our findings suggest that public acquirers may accept lower deal returns to meet the demands of high-stake socially responsible investors when acquiring publicly held targets. However, this effect does not extend to privately held targets, as these firms typically disclose limited information regarding their corporate social responsibility activities.

Having examined the impact of employee attitudes toward target firms on M&A outcomes, based on ratings provided by the target firm's employees, we now turn to a more direct inquiry: whether employees exert certain sentiments on M&A activities and, if so, how these sentiments influence deal outcomes. In the subsequent analysis, we investigate the impact of target firm's employees sentiment on M&A deals. To this end, we employ natural language processing (NLP) tools, including ChatGPT, to parse employee reviews. Specifically, we use ChatGPT to generate a list of M&A-related terms and manually confirm their relevance. We then tokenize each sentence and use SentenceBERT to create sentence-level embeddings, representing each sentence as a vector. To identify subtopics within M&A discussions, we apply the BERTopic model with the assistance of ChatGPT. Once the M&A topics are identified, we utilize SiEBERT, a pre-trained sentiment analysis model that is a fine-tuned checkpoint of the RoBERTa-large model (Liu et al., 2019), to analyze the sentiment in employee reviews. Our tests indicate that SiEBERT outperforms the DistilBERT-based model, which is trained solely on text.

Utilizing ChatGPT and natural language processing (NLP) tools, we construct a variable to measure employee sentiment and subsequently run regressions of merger outcomes on this sentiment measure. Our findings indicate that when employees exhibit a positive disposition towards merger deals, the deal is more likely to complete and the resulting synergies are higher for both public and private firms. These findings are intuitive: during the deal negotiation period, if the target firm's employees (who, as insiders, possess more information about the target) believe that the deal benefits them, then a firm with high social responsibility that pays attention to employee sentiment is more likely to be acquired with fewer internal obstacles.

Our paper addresses a significant gap in the literature by providing the first empirical evidence, to our knowledge, on the relationship between anonymous employee ratings and reviews of target firms and M&A outcomes. Specifically, this study contributes to the employee relationship literature by shifting the focus to employees as decision-makers and conveyors of their own views, rather than merely subjects affected by employee-related policies such as employee protection regulations and workforce safety (Bai et al., 2020; Cohn et al., 2021; Dessaint et al., 2017).

Furthermore, our research adds to the M&A literature by exploring the distinct driving factors for differences in outcomes when acquiring privately held versus publicly listed targets. On one hand, both academia and policymakers have widely acknowledged over the past decades that returns on acquiring private targets are substantially higher than those for publicly listed target firms (Officer, 2007). On the other hand, Jaffe et al. (2019) have found no evidence to suggest that unlisted targets are sold at a discount. Hertel et al. (2024) find that cultural differences between acquirer-target pairs constitute key success factors of M&A.

In addition, this paper advances the field of employee sentiment studies by employing cutting-edge tools

such as ChatGPT and natural language processing (NLP). While theoretical frameworks have underscored the significance of employee sentiment in relation to option compensation (Oyer and Schaefer, 2005; Bergman and Jenter, 2007), empirical research within this domain remains sparse. In line with the development of ESG literature, several empirical investigations have explored the importance of employee sentiment using data from ESG rating agencies or employer ratings published by magazines (Shan and Tang, 2023; Edmans, 2011). Since the establishment of Glassdoor.com, the largest platform where current and former employees anonymously evaluate companies, several studies have utilized this resource to examine the impact of employee reviews on corporate policies (Huang et al., 2020; Lee et al., 2021). Distinct from existing research, our study is among the first to employ ChatGPT and NLP tools to analyze the content of employee reviews from Glassdoor, thereby contributing novel methodologies for examining employee sentiment. Leveraging the strengths of ChatGPT and NLP tools, our measurement of employee sentiment is alleviated from bias induced by rating agencies or magazine editors.

The remainder of the paper is organized as follows. Section 2 describes the data, sample construction, and empirical strategy. Section 3 establishes the link between the Glassdoor employee ratings of target firms and M&A outcomes. Section 4 focuses on the possible channels underlying the observed employment dynamics. Section 5 analyzes the effect of employee sentiment on M&A outcomes. Section 6 concludes.

2 Data and variables

In this section, we discuss the data sources, sample construction, and variables employed in our study, following which we present a brief summary of the main variables used in the paper, accompanied by relevant summary statistics.

2.1 Data and sample

We started with manually collecting employee ratings and reviews from Glassdoor.com spanning from June 2008, the time of inception of the website, to December 2023. Glassdoor is a widely recognized platform where current and former employees anonymously post reviews and ratings on various workplace aspects. Ratings on Glassdoor range from 1 (lowest) to 5 (highest). Additionally, employees can share positive and negative comments about their workplace in the "pros" and "cons" sections. Glassdoor also collects information on the job position and location of each reviewer.

We collect merger and acquisition (M&A) deals from the Thompson Financial Securities Data Company (SDC) database. Our sample comprises all U.S. domestic M&A transactions reported in the SDC database

from 2008 to 2023, encompassing deals involving both public and private target firms. The sample period begins in 2008 to align with the establishment of Glassdoor. To be included in the sample, M&A deals must satisfy the following criteria: (1) the acquiring firm is publicly listed, (2) the deal value exceeds $1 million, (3) the deal is classified as a merger, an acquisition of majority interest, or an acquisition of assets in SDC database, and (4) the acquiring firm is not from the financial sector (SIC 6000-6999). The initial sample consists of 1,312 deals involving publicly listed targets and 2,538 deals involving privately held targets.

Financial data for public acquirers and public targets were sourced from the Compustat database, while stock return data for both acquirers and public targets around the M&A events were obtained from the Center for Research in Security Prices (CRSP) database. To collect financial data for private target firms, we manually matched the company names of the private targets to the National Establishment Time-Series (NETS) Database, which contains establishment-level data on annual sales, the number of employees, PayDex scores, SIC industry classification, and state information for over 34 million private businesses in the United States. The PayDex score, ranging from 1 to 100, indicates the likelihood that a business will pay its debts on time and serves as a measure of leverage for private target firms.

Restricting the sample to public acquirers ensures the availability of Glassdoor data for the target firms over the three-year period preceding the merger announcement date and other required financial data for both public and private targets. This restriction yields 790 deals for the final sample of public target firms and 1,566 deals for the final sample of private target firms.

2.2 Variable definitions and summery statistics

This paper examines the impact of target firm's employee ratings and reviews on the merger and acquisition performance of the acquiring firm. Table 1 presents the summary statistics for the primary variables employed in the analysis across firms and years. Detailed definitions of these variables are provided in Appendix Table 1.

Specifically, we examine M&A performance from two perspectives: short-term performance, as measured by the Cumulative Abnormal Return, and long-term performance, as measured by the Abnormal Industry-Adjusted Return on Assets (ROA) for the acquiring firm involved in the M&A transactions. The $CAR[-1, +1]$ is the primary dependent variable for the baseline regression, representing the acquirer's cumulative abnormal returns within a three-day window, with the deal announcement date designated as day zero. The Cumulative Abnormal Return is estimated utilizing the Fama-French three-factor model. This estimation employs the CRSP value-weighted index as the market return, with model parameters derived from the estimation window

spanning from 240 days to 60 days prior to the deal announcement date[7]. In line with the methodologies of Chen et al. (2007) and Ben-David et al. (2020), we calculate the Abnormal Industry-Adjusted Return on Assets (ROA) (*Abnormal ind adj.ROA*). This metric is computed as the residual from the regression of the post-acquisition industry-adjusted three-year average ROA (years $t+1$, $t+2$, and $t+3$) on the pre-acquisition industry-adjusted three-year average ROA (years t-3, t-2, and t-1). Due to the unavailability of three-year post-merger data for deals announced in 2021 and 2022, the sample size is reduced to 419 for public target samples and 1,368 for private target samples when analyzing long-term performance of M&A deals. To measure employee sentiment in this study, we primarily utilize the three-year average employee ratings of the target firms on the Glassdoor platform prior to the merger announcement date (3-*year MeanRate*). A three-year window is considered to provide a stable and robust measure of employee reviews, thereby mitigating the impact of short-term review boosting behaviors[8].

Panel A of Table 1 presents the summary statistics on stock market reactions to acquirers and targets, Glassdoor employee review characteristics, M&A deal characteristics, and basic financial information for the public target sample. The average acquirer CAR in the three-day window [-1,1] is -0.012 with a standard deviation of 0.072. When the window is extended to five days [-2,2], the average acquirer CAR slightly decreases to -0.014 with a standard deviation of 0.078. The average target CARs in the three-day window is 0.282, and in the five-day window, it is 0.285, which are comparable to other studies utilizing these measures (e.g., Antón et al., 2022; Dessaint et al., 2017; Suk and Wang, 2021). The overall Glassdoor rating of public targets over the three years before the M&A has a mean value of 3.219, slightly increasing to 3.223 for the 2-*year MeanRate* and to 3.246 for the 1-*year MeanRate*. These statistics suggest that the Glassdoor ratings remain stable across different time frames.

Panel B of Table 1 presents the summary statistics for the same stock performance variables, employee review measures, and additional deal or financial information for the private target sample. The average acquirer CAR in the three-day window [-1,1] is 0.020, which decreases to 0.017 in the five-day window [-2,2]. It is noteworthy that investor reactions to M&A deals involving private targets are significantly more positive than those involving public targets in the short-term surrounding the deal announcement. However, when considering a longer event window from two days before the announcement to two days after the merger becomes effective, the acquirer CAR drops significantly to -0.001, although it remains higher than that observed for public target deals. Additionally, private target deals exhibit superior long-term ROA

[7]We also employ the market model, using the CRSP value-weighted index as the market return, to measure the cumulative abnormal returns (CAR). The results obtained from this model are consistent with those derived from the three-factor model.

[8]We also use the 1-*year MeanRate* and 2-*year MeanRate* to perform the tests and the results are consistent.

performance, with a mean of 0.026 compared to 0.005 for public target deals. The overall Glassdoor rating for private targets over the three years preceding the M&A (3-*year MeanRate*) has a mean value of 3.219. These results suggest that, within our sample, private targets demonstrate greater employee satisfaction than public targets.

3 Empirical strategy

3.1 Baseline model and results

We begin by presenting the baseline results on the relationship between employee reviews and the acquirer's cumulative abnormal returns for deals involving both the public and private targets.

$$CAR[-1,+1] = \beta_0 + \beta_1 \times \text{3-}year\ MeanRate_{i,t-1} + \beta_2 \times Controls_{i,t-1} + Industry\ FE + Year\ FE + \varepsilon_{i,t-1} \quad (1)$$

The dependent variable considered in Equation 1 is the short-term stock performance around the merger announcement date, specifically CAR[-1, +1]. The main independent variable is the 3-*year MeanRate*, with 2-*year MeanRate* and 1-*year MeanRate* employed for robustness checks. Following the methodologies of Bena and Li (2014) and Suk and Wang (2021), we incorporate control variables including firm size, leverage ratio for both the acquirer and target firm, an indicator for whether the acquirer and target firms are located in the same state (*Samestate*), and various deal characteristics specified in Appendix Table 1. Both acquirer and target characteristics are measured at the end of the fiscal year preceding the merger announcement. The baseline regression controls for industry fixed effects (using the two-digit SIC industry classification) and year fixed effects. The standard errors are clustered at the acquiring firm level.

Table 2 presents the results. In the OLS regressions presented in Panel A of Table 2, we find that an increase in the employee ratings of a public target is associated with a decreasing stock performance for the acquiring firm within the three-day window around the merger announcement date. This negative relationship is significant at the 1% level and remains consistent when varying the window for measuring the average employee ratings over three years (Column 1), two years (Column 2), and one year (Column 3) before the deal announcement date. Specifically, an increase of one standard deviation in the target's employee ratings results in 0.8 percentage points decrease in the acquirer's CAR, which is economically significant.

Panel B of Table 2 reports the relationship between the employee rating of a private target and the 3-day window CAR of the acquiring firm. We find contrasting results compared to the coefficient of -0.010 for deals involving public target firms, as the coefficient for private target deals is 0.010, significant at the 1% level. The acquirer's short-term cumulative abnormal return increases by 0.9 percentage points, and this positive effect slightly improves when the measure of the private target's employee ratings is adjusted to either two years or one year beforehand. These findings for deals involving both public and private targets remain robust when using a 5-day window [-2, +2] around the deal announcement date to measure the acquirer's CAR, and we present those results in Appendix Table 2.

3.2 Acquisition synergy

Next, we examine whether the target firms' employee ratings prior to acquisition predict the synergies created by the M&A deals. To measure synergy of M&A deals, we follow Martin and Shalev (2017) and Suk and Wang (2021) and use the combined abnormal return to the acquirer and the public target over the three-day window surrounding the merger announcement date ($Synergy[-1, +1]$). The combined CAR is calculated by value-weighting the acquirer's three-day CAR ($CAR[-1, +1]$) and the target's three-day CAR ($TargetCAR[-1, +1]$). Similar to the acquirer CAR, $TargetCAR[-1, +1]$ is measured as the cumulative abnormal returns over the three-day window, based on the Fama-French three-factor model using the CRSP value-weighted index as the market return, with parameters estimated over the period from 240 days to 60 days before the deal announcement date. The weights are the relative market values of the acquirer and target at the last fiscal year-end prior to the merger announcement date. Due to the unavailability of stock return data for private targets, our focus of target firm's employee ratings on synergy is solely on the sample of deals involving publicly listed target firms. To investigate this, we replace the dependent variable $CAR[-1, +1]$ in Equation 1 with $Synergy[-1, +1]$.

The regression results of target firms' employee ratings on deal synergy are reported in Table 3. We find that the higher employee ratings of the public target firm are associated with a decreased synergy, as indicated by the negative combined CAR around the announcement date, at least at the 5% significance level. The coefficient on the 3-*year* $MeanRate$ is -0.009, with similar values for the 2-*year* $MeanRate$ and 1-*year* $MeanRate$, both of which are statistically and economically significant. A one-standard deviation increase in the 3-*year* $MeanRate$ corresponds to 0.7 percentage points decline in $Synergy[-1, +1]$. Additionally, we use the value-weighted $CAR[-2, +2]$ of the acquirer and target to form $Synergy[-2, +2]$, and the negative relationship persists (see Appendix Table 3). Overall, these results align with our predictions that investors perceive the acquirer to incur additional costs when acquiring more employee-friendly public

targets with high employee ratings. Consequently, this perception results in negative stock performance, as evidenced by both the acquirer's CAR and the combined CAR at the deal announcement.

3.3 Changes in long-term operating performance

We next examine the implications of the target firm's employee ratings on changes in the post-M&A long-term operating performance. Several studies suggest that acquisition CAR and the synergy measured as combined CAR may understate the bidder's true acquisition gains or synergies. Ben-David et al. (2020) found that the announcement return has no material correlation with ex-post performance and thus cannot adequately capture the realized value creation of M&A deals. Following these findings, we further investigate the acquirer's cash flow contributions resulting from the acquisition. Following the methodologies of Chen et al. (2007) and Ben-David et al. (2020), we utilize the following regression of post-acquisition industry-adjusted three-year average ROA ($t+1$, $t+2$, $t+3$) on the pre-acquisition industry-adjusted three-year average ROA (t-3, t-2, t-1), as shown in Equation 2.

$$\frac{1}{N}\sum_{t=1}^{N}[ROA_{i,t} - ROA_{industry,t}] = \beta_0 + \beta_1 \frac{1}{N}\sum_{t=-N}^{-1}[ROA_{i,t} - ROA_{industry,t}] + \varepsilon_{i,t} \tag{2}$$

The residual "$\varepsilon_{i,t}$" in Equation 2 measures the abnormal change in the acquirer's ROA (*Abnormal ind adj. ROA*). We define the pre-acquisition period as the three years before the deal announcement and the post-acquisition period as the three years following deal completion. We only include deals with completed bidders in the regression. We consider the three-year horizon because the median acquirer typically impairs or divests at a loss by the third year following acquisition (e.g. Ben-David et al., 2020; Suk et al., 2021; Suk and Wang, 2021). Industry classification is based on the two-digit SIC. We assess the long-term performance of the combined firm by measuring the abnormal change in the acquirer's Return on Assets. This approach is grounded in the notion that changes in the acquirer's cash flows can be effectively detected when compared to an industry counterfactual (e.g. Ben-David et al., 2020; Chen et al., 2007; Fu et al., 2013; Healy et al., 1992). Additionally, pre-acquisition ROA is considered a reliable predictor of post-acquisition ROA performance (Chen et al., 2007). The sample is reduced to 419 for the sample consisting of deals involving public targets and 1,368 for the sample consisting of deals involving private targets due to missing ROA data in the three-year period around the announcement or completion date, especially for deals announced in 2022 and 2023.

We substitute the dependent variable $CAR[-1,+1]$ in Equation 1 with the calculated *Abnormal ind adj. ROA*. The results, presented in Table 4, include deals involving public target firms in Column 1 and deals involv-

ing private target firms in Column 2. Both columns show a positive relationship between the target firm's employee ratings and post-acquisition ROA of the combined firm, irrespective of the target firm's listing status. The coefficient on the 3-*year* $MeanRate$ is 0.012 for Column 1 and 0.022 for Column 2, both significant at the 5% level. In summary, we observe the positive effect of employee ratings on post-acquisition ROA, compared to the negative result for acquirer CAR[-1, +1]. This contradiction indicates that acquiring employee-friendly target firms is beneficial to the combined firm from a long-term perspective, even if the deal may initially be perceived as value deterioration by shareholders.

3.4 Offer premium for publicly listed targets

Next, we investigate whether acquirers pay a higher offer price or premium for publicly listed target firms with high employee ratings from employee reviews. Following previous studies, we measure the takeover premium using the bidder's offer price relative to the target's stock price. Specifically, we construct two measures: $Premium\_1day$ and $Premium\_1week$, which are defined as the ratio of the offer price to the target firm's closing stock price one day and one week prior to the merger announcement, respectively, minus one (e.g. Eaton et al., 2021; Laamanen, 2007; Suk and Wang, 2021). To test this hypothesis, we replace CAR[-1, 1] in Equation 1 with $Premium\_1day$ and $Premium\_1week$ and rerun the regressions.

Table 5 presents the results for the relationship between the offer price premium and the employee ratings of public targets. We find that the target's employee rating is significant at the 5% level and positively related to all premium measures ($Premium\_1day$ and $Premium\_1week$). Economically, a one-standard deviation increase in the target's employee ratings elevates the premium paid over the target's stock price one day ($Premium\_1day$) and one week ($Premium\_1week$) before the merger announcement by 5.5 percentage points and 5.0 percentage points, respectively. These results suggest that acquirers are willing to offer higher premiums when the public target demonstrates greater responsibility to its inside stakeholders, namely, its employees. This willingness likely reflects the acquirer's increased confidence in the value of taking over such a target.

4 Channel tests

In this section, we explore the reasons why target firm employee ratings exert varying influences on merger outcomes depending on whether the target firms are publicly listed or privately held. Specifically, we propose three channels to elucidate these differences: the information channel, the employee satisfaction channel, and catering to socially responsible institutional investors.

4.1 Information asymmetry for privately held targets

We first investigate whether the positive effect on acquirer CAR for deals involving private target firms is driven by the reduction of information asymmetry through the Glassdoor reviews.

As discussed in Section 1, Glassdoor reviews cover various dimensions of a firm, including innovation capacity, workplace safety, operational conditions, and organizational culture, making Glassdoor a valuable information resource for bidders evaluating potential privately held target firms. Therefore, if investors have access to more information about the private target firm by reading Glassdoor reviews, a positively rated target could be perceived as a more valuable partner, leading to a more positive reaction following the merger announcement. For publicly listed target firms, the stock market assimilates such information (Capron and Shen, 2007). Thus, employee reviews contribute to reducing information asymmetry much more significantly for private companies than for public ones. This reduction in asymmetry can lead to more favorable outcomes (Gao et al., 2018).

Columns 1 to 3 in Table 6 present the OLS regression results for $D(Glassdoor\_3year)$, $D(Glassdoor\_2year)$ and $D(Glassdoor\_1year)$, respectively. The coefficients are significantly positive at the 5% level in Columns 1 and 2, and significant at the 10% level in Column 3. The reduced value and significance of the coefficients from the three-year to the one-year horizon are reasonable, as reviews over a longer time horizon provide more useful information to acquirers. The positive coefficients in all columns support our hypothesis that Glassdoor reviews can reduce information asymmetry when acquiring a privately held firm, thereby inducing positive stock performance for the acquirer around the merger announcement date.

4.2 Employee satisfaction channel

In this section, we aim to explore another underlying explanation for the negative acquirer's stock performance around the announcement date when acquiring a publicly listed target. The extensive attention paid to employee satisfaction by the community and government requires public firms to allocate more resources to improving the workplace environment, enhancing employee salaries, or increasing job retention. Publicly traded firms, subject to more stringent government regulations than private ones, tend to incur higher costs in maintaining employee satisfaction compared to private firms, which operates more inclining to the at-will employment principle. These expenditures could otherwise be invested in more valuable projects or innovation initiatives that promote firm growth. Consistent with the findings of Slutzky (2021), we posit that public firms incur greater expenses than private firms to achieve equivalent levels of employee satisfaction, thus resulting in a negative investor reaction when a positively rated public target is acquired.

To examine this employee satisfaction cost channel, we employ a staggered difference-in-difference (DID)

regression of acquirer's cumulative abnormal returns on the passage of right-to-work (RTW) laws in the state where the target firm is located, with differentiated implementation times. Right-to-work laws prohibit union security agreements between employers and labor unions, thereby weakening the role of unions in targeted firms. In RTW states, union power is curtailed as workers in unionized firms cannot be forced to pay union dues or join the union (Kini et al., 2022). Existing studies generally support a positive relationship between labor unions and employee satisfaction, as unions reduce the inefficiencies of incomplete contracting and provide greater job security for workers (Williamson et al., 1975; Freeman and Medoff, 1984). Therefore, we test whether the passage of RTW laws in the state where a public target is located increases the acquirer CAR for the M&A deal (due to lower costs to maintain employee satisfaction), whereas the converse results could be observed for acquiring privately held targets.

We replace the independent variable with Right-to-Work in Equation 1, and the staggered DID regression results are presented in Table 7. Right-to-Work is an indicator that takes the value of one if the target firm is located in a state where the right-to-work law has passed at time t-1 before the merger announcement date and zero if the target firm is in a state where the right-to-work law has not passed at time t-1. We observe a positive coefficient (0.007) for public target deals (Column 1) and a negative coefficient (-0.017) for private target deals (Column 2), both significant at least at the 10% level, supporting our predictions that employee satisfaction costs play a role in the merger outcomes. In conclusion, the negative impact of public target firms' employee ratings on the acquirer's CAR around the merger announcement date can be partially attributed to the higher costs that public firms incur to maintain employee satisfaction, driven by more stringent government regulations.

4.3 Catering to socially responsible institutional investors

In this section, we examine the cross-sectional heterogeneities in the effect of employee ratings, with a particular focus on the holdings of Socially Responsible Investment (SRI) mutual funds of acquirers. SRI funds are investment vehicles that consider not only financial returns but also the ethical, social, and environmental impacts of the companies in which they invest. These funds aim to promote sustainability, social justice, and good corporate governance (ESG performance) while still generating competitive returns for investors (e.g., Chen et al., 2020; Farroukh et al., 2023). Existing literature has well documented the stock picking decisions made by SRI fund is different with conventional mutual fund, i.e., SRI funds adjust portfolio weights by considering companies' relative ESG performance, besides firm financial characteristics (Farroukh et al., 2023; Joliet and Titova, 2018; Riedl and Smeets, 2017). Therefore, we predict that if SRI funds hold a significant stake of shares in an acquiring firm, the acquirer is more likely to choose M&A targets with

strong ESG performance and be willing to pay a premium for them (Heinkel et al., 2001; Gollier and Pouget, 2014). Consequently, we examine that in the subsample with higher SRI fund holdings in the acquiring firm, whether the negative relationship between target firms' employee ratings and acquirer CAR will be more pronounced for deals involving publicly listed target firms. However, due to the limited accessibility of information on private firms for SRI investors, the need to cater to these investors when acquiring a private target is reduced. Therefore, we predict that the impact of SRI fund holdings on the relationship between target firms' employee ratings and the acquirer's CAR is negligible.

Data on Socially Responsible Investment (SRI) funds were collected from the CRSP Survivor-Bias-Free US Mutual Fund Database, which provides quarterly holdings information for U.S. mutual funds, along with various fund characteristics. Following Farroukh et al. (2023), we define SRI mutual funds as those whose names contain any of the following phrases: ESG, wise, clean, green, carbon, social, climate, equality, diversity, conscious, leadership, environment, organics, alternative energy, sustainable, women, SRI, sustainability, impact, gender, tobacco-free, customer, womenomics, LGBTQ, socially responsible, thinkgreen, decarbonization, tribal inclusion, ethical, solar, and wind energy. We also follow Appel et al. (2019) and exclude passive funds flagged as index funds by removing those marked with the flag "D".

Based on the median value of SRI mutual fund holdings in acquiring firms, we divide the sample into two subgroups for deals involving both publicly listed targets and privately held targets: High SRI holdings (Columns 1 and 3) and Low SRI holdings (Columns 2 and 4). Columns 1 and 2 of Table 8 present the cross-sectional tests results for deals involving publicly listed targets. We find that the negative coefficient (-0.016) is significant at the 1% level for the High SRI group, whereas the coefficient (-0.003) for the Low SRI group is insignificant. The difference between the subgroups is significant at the 10% level. Columns 3 and 4 present the results of cross-sectional tests for deals involving privately held target firms. The coefficients for both the High SRI group (0.010) and the Low SRI group (0.011) are positive and significant at least at the 10% level, with no significant difference between the groups. Overall, the cross-sectional analyses presented in Table 8 support our inference that SRI mutual funds play an important role in M&A deal outcomes only for public target deals. Catering to the preferences of these funds may lead to short-term negative stock performance when acquiring publicly listed targets that are highly rated by its employees.

5 Sentiment to M&A

In this section, we apply textual analysis of the content of target firms' employee reviews and analyze the influence of sentiment in those reviews on deal completion and merger outcomes.

5.1 A keyword-based textual analysis method

In this section, we conduct a textual analysis to identify employee reviews pertaining to M&As and employ a pre-trained Bidirectional Encoder Representations from Transformers (BERT) model to investigate how the sentiment of employee reviews from the target firms influences M&A outcomes, either in terms of the likelihood of deal completion or the acquirer's CAR performance. Our primary objective is to identify M&A-related reviews of the target firms posted on Glassdoor. Identifying reviews with M&A information is particularly challenging due to the unique characteristics of Glassdoor reviews: the reviews often comprise segmented phrases and informal language, posing significant challenges for unsupervised machine learning methods such as Latent Dirichlet Allocation (LDA), which is commonly used for topic assignments. A simple dictionary-based method may perform better in this context, requiring researchers to predefine word lists (dictionaries) to identify the desired text. However, due to the informal language used in Glassdoor reviews, it is difficult to find a well-defined word list for M&A. Therefore, we follow the approach of Fritsch et al. (2023), adopting a combined machine learning and human expert supervision method to build a keyword list to identify M&A-related reviews.

Our keyword discovery method comprises three major steps. In the first step, we build a training sample with a significant number of Glassdoor reviews by randomly selecting from large firms, small businesses, private firms, public firms, acquirers, and targets to ensure a sufficient variation in language features. Next, we use ChatGPT to extract related words and phrases relevant to M&A and the sentences where the keywords appear. In the second step, we present the GPT-selected sentences to human experts to review and manually refine the keyword list to create an exhaustive and contextually accurate keyword set. This manual adjustment ensures that the keyword list captures both explicit and nuanced references to M&A topics. We next tokenize each review sentence and use SentenceBERT[9] to create sentence-level embeddings, representing each sentence as a vector. Using the expert-supervised keyword list, we construct a vector for the M&A keywords and later compare it with the sentence embedding vector to calculate the similarity to the keyword embedding vector. In the third step, we determine an optimal threshold for the similarity to identify whether the sentence is related to M&A. To achieve this, we use another training sample labeled by researchers and test various thresholds (e.g., 0.4, 0.5, 0.6, 0.7) on the validation set and analyze their performance. The threshold is adjusted incrementally until the automated topic assignments closely align with human labels. By observing changes in metrics such as Precision, Recall, and F1 score under different thresholds, we identify the best-performing threshold as 0.5, which is widely employed in natural language processing. This approach effectively balances coverage and accuracy.

[9]SentenceBERT, a robust variant of BERT specifically optimized for sentence similarity tasks, encodes each sentence into a 384-dimensional vector, thereby facilitating more advanced analysis.

By repeating these steps, we generate a final keyword list for M&A and extract all M&A-related sentences for all target firms within the sample period. Based on the selected M&A sentences, we further categorize them into four topic categories: "Employee Impact," "Organizational Restructuring and Management Issues," "Integration Challenges," and "Company Growth and Success." Using a similar process for defining the M&A keywords, we define the keyword list for each subtopic under these four categories[10]. Appendix Figures 1 and 2 report the sentence counts for each category in a time series following the merger announcement for public and private targets. The figures indicate that over the three-year period from the merger announcement, M&A sentences are predominantly related to company growth and firm performance. Employees of both public and private target firms believe that the combined companies perform well in enhancing employee benefits (e.g., higher salary packages and more career opportunities) but require improvement in organizational restructuring. This argument is supported by the significant increase in "Employee Impact" depicted in sub-figure b) Pros, and the rise in "Restructuring Issues" shown in sub-figure c) Cons after the merger.

5.2 Sentiment analysis of M&A reviews

Once the M&A sentences are identified, we utilize SiEBERT, a pre-trained sentiment analysis model that is a fine-tuned checkpoint of the Robustly Optimized BERT Pretraining Approach (RoBERTa-large model)(Liu et al., 2019), to analyze the sentiment in employee reviews. SiEBERT has been fine-tuned using 15 different datasets encompassing reviews, tweets, and various other text sources, and it performs better when analyzing Glassdoor reviews data compared to DistilBERT-based models, particularly those trained on narrow data sources (e.g., SST-2 movie reviews), when applied to new and varied datasets. Using the SiEBERT model, each M&A sentence is classified as negative or positive on a scale from -1 (the lowest sentiment score) to 1 (the highest sentiment score). To examine the relationship between the target's employee sentiment towards M&A and M&A deal performance, we construct a new independent variable, $Sent\_M\&A[Ann, Eff]$, measured as the average value of sentiment towards M&A of the target firms in the period between the merger announcement date and the merger completion date (or the withdrawn date for withdrawn deals).

5.2.1 Sentiment in reviews towards M&A and the likelihood of deal completion

This section investigates how sentiment of employee reviews towards M&A impacts the likelihood of deal completion for both public and private target deals. Specifically, we replace the dependent variable with

[10]We evaluate the accuracy of topic assignment by comparing the similarity scores between topic keyword embeddings and sentence embeddings. Our findings indicate that the supervised machine learning method outperforms both KMeans clustering and the use of other pre-trained BERT models.

Completed, an indicator that takes the value of one if the deal is completed and zero otherwise, in Equation 1. We further interact the 1-*year MeanRate* with $Sent\_M\&A[Ann, Eff]$ as our main independent variable of interest, and also include $Sent\_M\&A[Ann, Eff]$ in the regression.

We employ an ordinary least squares (OLS) regression rather than a probit regression model for this research question because incorporating high-dimensional fixed effects in a probit model can lead to the incidental parameters problem when the dataset is not sufficiently large. In this analysis, we use the 1-*year MeanRate* instead of the 3-*year MeanRate*, as the 1-*year MeanRate* reflects the most recent employee psychological well-being prior to the merger announcement. This makes it more relevant to the current state of the company at the time of the M&A activity, and it is less likely to be confounded by other factors such as management changes, market conditions, or internal company events. Conversely, the 3-*year MeanRate* used in the main regression is a better measure of the target firm's social responsibility towards its employees. This comprehensive measure allows acquirers to assess the target firm's consistent commitment to employee welfare, which can be a critical factor in post-merger integration success.

Table 9 reports the results for public target deals in Column 1 and for private target deals in Column 2. The significantly positive coefficients for both types of deals indicate that positive employee sentiment towards M&A is crucial for the completion of M&A deals involving both public and private targets with high social responsibility. These findings are intuitive: during the deal negotiation period, if the target firm's employees (who, as insiders, possess more information about the target) believe that the deal benefits them, then a firm with high social responsibility that pays attention to employee sentiment is more likely to be acquired with fewer internal obstacles.

5.2.2 Sentiment towards M&A and acquirer CAR

We further investigate the impact of the target firm's employee sentiment towards M&A on the acquirer's CAR. We hypothesize that positive sentiment from the target's employees signifies their support for deal completion and correlates with a higher stock performance in both public and private target deals. When employees, who are stakeholders with extensive insider information about the target firm, convey a positive signal about the M&A deals to the market, investors' concerns about acquiring a superficially "green" but less profitable entity are alleviated. To examine this, we employ two dependent variables: $CAR[-1, +1]$ in Columns 1 and 2, and $CAR[Ann\text{-}2, Eff+2]$ in Columns 3 and 4. The latter measures the acquirer CAR over the period from two days before the merger announcement date to two days after the merger completion date (or the withdrawn date for withdrawn deals), with the expected return derived from a three-factor model using the CRSP value-weighted index return as the market return, following Antón et al. (2022).

Table 10 presents the results for public target deals in Columns 1 and 3, and for private target deals in Columns 2 and 4. The coefficients are positive and significant at least at the 10% level for both public and private targets. The coefficient for private target deals is slightly larger, as investors generally hold a more favorable view of these types of M&A transactions, whereas public target deals raise more concerns. The results for public firms are consistent with our baseline findings in Table 2. Investors may perceive that acquiring a firm with higher social responsibility is merely catering to SRI funds or that paying a premium for higher employee satisfaction is not worthwhile; therefore, the baseline shows negative CARs around the announcement for public target deals. However, as discussed in the preceding paragraph, the alleviation of these concerns by incorporating the positive signal sent by the target's employees results in a positive acquirer CAR for the public target deals.

6 Conclusion and policy implications

We utilize employee reviews from Glassdoor.com to investigate the role of target firm's employee reviews and the impact of their opinion-sharing on corporate mergers and acquisitions (M&A) activities. Our findings indicate that, for private targets, employee ratings positively influence merger outcomes, whereas the effect is reversed for publicly listed targets. Our evidence supports two channels to explain these effects: the information channel and the employee satisfaction channel. Additionally, we find that catering to the needs of socially responsible institutional investors represents another plausible channel. In subsequent analysis, we delve into employee sentiment by parsing employee comments using ChatGPT and natural language processing (NLP) tools. Our results show that target firm employee sentiment positively influences both the likelihood of M&A completion and the overall M&A outcomes.

The implications of our findings are twofold. First, from an academic perspective, our results suggest that a one-size-fits-all approach may not be effective when analyzing M&A deals. The public status of targets can lead to divergent effects on acquirer returns. However, the long-term improvement in industry-adjusted Return on Assets (ROA) after acquiring either public or private targets with higher employee ratings indicates that acquiring a socially responsible firm is beneficial. Second, from a practical standpoint, understanding the target firm's employee sentiment is essential for successful merger completion and the long-term integration of employees in the merged entities.

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Table 1

Summery statistics

Panel A reports descriptive statistics for the variables used in public target sample. Employee ratings data of target firms is collected from Glassdoor for the period from June 1, 2008 (the website creation) to December 31, 2023. I delete the observations for the target firms without any review in the 3-year period before the merger announcement date, as well as observations with incomplete financial data for both acquirer and target firms. The final sample contains 790 deals. Panel B reports descriptive statistics for the variables used in private target sample. The sample selection procedures are same as the public target sample for the Glassdoor database. I manually match the company names of the private targets to the National Establishment Time-Series (NETS) Database and delete the un-matched private target firms. The final sample contains 1,566 deals. The reduced number of observations for 1-*year MeanRate* and 2-*year MeanRate* is due to the missing data in the Glassdoor website. All variables are defined as in Appendix Table 1. All continuous variables are winsorized at the 1% and 99% levels.

Variable	Mean	SD	p5	p25	p50	p75	p95	N
Panel A: Public targets								
CAR[-1, +1]	-0.012	0.072	-0.135	-0.047	-0.008	0.021	0.102	790
CAR[-2, +2]	-0.014	0.078	-0.145	-0.051	-0.009	0.024	0.108	790
CAR[Ann-2, Eff +2]	-0.003	0.204	-0.299	-0.105	-0.01	0.095	0.299	758
TargetCAR[-1, +1]	0.282	0.362	-0.032	0.088	0.209	0.370	0.832	787
TargetCAR[-2, +2]	0.285	0.361	-0.026	0.093	0.21	0.385	0.843	787
Synergy[-1 +1]	0.023	0.074	-0.075	-0.015	0.013	0.054	0.155	785
Synergy[-2 +2]	0.022	0.077	-0.092	-0.019	0.014	0.054	0.159	785
Abnormal Ind adj. ROA	0.005	0.072	-0.069	-0.024	-0.01	0.022	0.118	486
Premium_1day	0.390	1.231	-0.018	0.125	0.25	0.436	1.043	766
Premium_1week	0.404	1.089	-0.011	0.142	0.27	0.444	1.151	766
3-year MeanRate	3.219	0.808	2.000	2.762	3.250	3.778	4.500	790
2-year MeanRate	3.223	0.820	1.929	2.800	3.260	3.785	4.500	766
1-year MeanRate	3.246	0.872	1.800	2.783	3.252	3.857	4.750	722
Allcash	0.384	0.487	0	0	0	1	1	790
Allstock	0.229	0.421	0	0	0	0	1	790
Deal value	7.052	1.794	4.199	5.752	6.960	8.317	10.060	790
Completed	0.854	0.353	0	1	1	1	1	790
Size_acq	9.037	1.900	5.817	7.795	9.025	10.390	12.080	790
Leverage_acq	7.015	1.786	4.226	5.766	7.032	8.256	10.140	790
Size_tar	0.418	0.262	0	0.237	0.396	0.572	0.881	790
Leverage_tar	0.397	0.336	0	0.101	0.360	0.580	1.034	790
Samestate	0.270	0.444	0	0	0	1	1	790
SRI fund holding	0.004	0.009	0	0	0.001	0.005	0.020	790
Sent_M&A[Ann, Eff]	-0.021	0.559	-0.997	0	0	0	0.993	480
Panel B: Private targets								
CAR[-1, +1]	0.020	0.143	-0.079	-0.013	0.007	0.035	0.139	1,566
CAR[-2, +2]	0.017	0.145	-0.102	-0.020	0.005	0.036	0.147	1,566
CAR[Ann-2, Eff +2]	-0.001	0.377	-0.271	-0.056	0.002	0.060	0.264	1,555
Abnormal Ind adj. ROA	0.026	0.349	-0.360	-0.107	-0.019	0.118	0.490	1,357
3-year MeanRate	3.371	0.879	2.000	2.846	3.363	4.000	5.000	1,566
2-year MeanRate	3.390	0.892	2.000	2.841	3.384	4.000	5.000	1,512

(To be continued)

1-year MeanRate	3.397	0.960	1.750	2.833	3.412	4.000	5.000	1,391
Allcash	0.711	0.453	0	0	1	1	1	1,566
Allstock	0.018	0.133	0	0	0	0	0	1,566
Subsidiary	0.438	0.496	0	0	0	1	1	1,566
Deal value	5.275	1.522	2.757	4.223	5.312	6.267	7.719	1,566
Completed	0.983	0.130	1	1	1	1	1	1,566
Size_acq	8.009	1.908	4.723	6.818	8.013	9.234	11.230	1,566
Leverage_acq	0.200	0.183	0.000	0.053	0.155	0.288	0.588	1,566
Size_tar	3.770	1.663	0.693	2.639	3.912	4.905	6.477	1,566
Leverage_tar	0.249	0.069	0.200	0.200	0.230	0.270	0.360	1,566
Samestate	0.192	0.394	0	0	0	0	1	1,566
SRI fund holding	0.003	0.010	0.000	0.000	0.000	0.003	0.014	1,566
Sent_M&A[Ann, Eff]	0.004	0.467	-0.991	0.000	0.000	0.000	0.989	517

Table 2

Acquirer cumulative abnormal returns (CARs) and employee ratings

This table presents the results from the regression of the acquirer's cumulative abnormal returns (CARs) around the merger announcement date on Glassdoor employee ratings. Panel A presents the results of public target sample. Panel B presents the results of private target sample. The dependent variable is $CAR[-1, +1]$, the 3-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The independent variable for Column 1 is 3-*year MeanRate*, the 3-year average value of overall employee rating on Glassdoor before the merger announcement date. The independent variables for Columns 2 and 3 are the 2-year average value (2-*year MeanRate*) and 1-year average value (1-*year MeanRate*) of overall employee ratings on Glassdoor before the merger announcement date, respectively. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are defined in Appendix Table 1. Subsidiary is added as control variable for private target sample but not public target sample due to multicollinearity in the public sample. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
VARIABLES	CAR[-1, +1]	CAR[-1, +1]	CAR[-1, +1]
Panel A: Public targets			
3-year MeanRate	-0.010***		
	(-3.15)		
2-year MeanRate		-0.010***	
		(-2.99)	
1-year MeanRate			-0.009***
			(-2.84)
Size_acq	0.004*	0.005**	0.005**
	(1.82)	(2.11)	(2.17)
Size_tar	0.004	0.004	0.005
	(1.01)	(1.08)	(1.20)
Leverage_acq	0.006	0.007	0.005
	(0.47)	(0.53)	(0.36)
Leverage_tar	0.005	0.008	0.008
	(0.64)	(0.91)	(0.95)
Samestate	0.009	0.009	0.010
	(1.56)	(1.46)	(1.53)
Allcash	0.030***	0.029***	0.026***
	(4.69)	(4.48)	(3.79)
Allstock	-0.005	-0.005	-0.007
	(-0.75)	(-0.71)	(-0.86)
Deal value	-0.006	-0.007*	-0.008*
	(-1.59)	(-1.79)	(-1.93)
Observations	790	766	722
R-squared	0.210	0.207	0.210
Industry FE	YES	YES	YES
Year FE	YES	YES	YES
Panel B: Private targets			

(To be continued)

3-year MeanRate	0.010***		
	(2.61)		
2-year MeanRate		0.011**	
		(2.30)	
1-year MeanRate			0.012***
			(2.68)
Size_acq	-0.015***	-0.014**	-0.017**
	(-2.69)	(-2.56)	(-2.09)
Size_tar	-0.003	-0.004	-0.005
	(-0.74)	(-0.85)	(-0.97)
Leverage_acq	0.117*	0.122*	0.102
	(1.83)	(1.83)	(1.46)
Leverage_tar	0.003	0.018	0.012
	(0.09)	(0.51)	(0.36)
Samestate	0.013	0.013	0.018
	(0.83)	(0.80)	(0.88)
Allcash	-0.023**	-0.026**	-0.024*
	(-2.29)	(-2.50)	(-1.88)
Allstock	-0.019	-0.028	-0.058**
	(-0.50)	(-0.74)	(-2.01)
Subsidiary	0.016**	0.017**	0.017*
	(2.24)	(2.18)	(1.95)
Deal value	0.008	0.008	0.009
	(1.43)	(1.36)	(1.34)
Observations	1,566	1,512	1,391
R-squared	0.129	0.134	0.145
Industry FE	YES	YES	YES
Year FE	YES	YES	YES

Table 3

Combined abnormal returns (*Synergy*) and employee rating for public targets

This table presents the results from the regression of acquirer-target combined announcement cumulative abnormal returns on employee ratings (*3-year MeanRate*) for public targets. The dependent variable is the value-weighted combined announcement cumulative abnormal returns (CARs) in the 3-day window [-1,+1] based on the three-factor model around the merger announcement date for acquirer and public target. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
VARIABLES	Synergy[-1, +1]	Synergy[-1, +1]	Synergy[-1, +1]
3-year MeanRate	-0.009***		
	(-2.61)		
2-year MeanRate		-0.009**	
		(-2.58)	
1-year MeanRate			-0.007**
			(-2.10)
Size_acq	-0.011***	-0.011***	-0.010***
	(-4.49)	(-4.21)	(-3.79)
Size_tar	0.010**	0.010**	0.012***
	(2.39)	(2.39)	(2.71)
Leverage_acq	0.026*	0.025*	0.027*
	(1.72)	(1.69)	(1.73)
Leverage_tar	0.001	0.004	0.005
	(0.12)	(0.41)	(0.57)
Samestate	0.009	0.008	0.008
	(1.43)	(1.30)	(1.29)
Allcash	0.025***	0.024***	0.023***
	(3.41)	(3.29)	(2.95)
Allstock	-0.017**	-0.018**	-0.018**
	(-2.07)	(-2.07)	(-2.05)
Deal value	-0.001	-0.002	-0.003
	(-0.26)	(-0.41)	(-0.62)
Observations	777	754	707
R-squared	0.232	0.234	0.236
Industry FE	YES	YES	YES
Year FE	YES	YES	YES

Table 4

Acquirer long-term performance and employee ratings

This table presents the results from the regression of the post-acquisition change in earnings performance (*Abnormal ind adj.ROA*) on employee ratings (*3-year MeanRate*) for public targets in Column 1 and for private targets in Column 2. Following Chen et al. (2007) and Ben-David et al. (2020), *Abnormal ind adj.ROA* is measured as the residual of regression of post-acquisition industry-adjusted three-year average ROA ($t+1$, $t+2$, $t+3$) on the pre-acquisition industry-adjusted three-year average ROA (t-3, t-2, t-1). The sample is reduced to 419 and 1,368 for public target sample and private target sample, respectively, because of the missing data of ROA in the 3-year period before deal announcement or in the 3-year period after deal completion. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
VARIABLES	Abnormal ind adj.ROA	Abnormal ind adj.ROA
	Public targets	Private targets
3-year MeanRate	0.012**	0.022**
	(2.22)	(2.37)
Size_acq	0.001	0.031***
	(0.44)	(3.54)
Size_tar	0.005	0.009*
	(0.94)	(1.85)
Leverage_acq	-0.011	0.016
	(-0.76)	(0.31)
Leverage_tar	-0.022**	0.011
	(-2.43)	(0.12)
Samestate	-0.012	-0.025
	(-1.35)	(-1.36)
Allcash	-0.025**	0.071***
	(-2.19)	(4.21)
Allstock	0.006	-0.118
	(0.68)	(-1.27)
Deal value	-0.011	0.010
	(-1.59)	(1.38)
Subsidiary		0.023
		(1.58)
Observations	419	1,368
R-squared	0.332	0.473
Industry FE	YES	YES
Year FE	YES	YES

Table 5

Offer price premium and employee rating for public targets

This table presents the results from the regression of the offer price premium over the target firm's stock price (*Premium_1day* or *Premium_1week*) on employee ratings of public target firms. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
VARIABLES	Premium_1day	Premium_1week
3-year MeanRate	0.068**	0.062**
	(2.09)	(1.98)
Size_acq	0.105	0.091
	(1.22)	(1.23)
Size_tar	-0.099	-0.100*
	(-1.60)	(-1.82)
Leverage_acq	0.123	0.126
	(0.77)	(0.84)
Leverage_tar	0.024	0.000
	(0.23)	(0.00)
Samestate	-0.048	-0.032
	(-0.97)	(-0.66)
Allcash	-0.314	-0.259
	(-1.11)	(-1.06)
Allstock	-0.140	-0.129
	(-1.19)	(-1.25)
Deal value	-0.086	-0.066
	(-1.40)	(-1.22)
Observations	758	758
R-squared	0.095	0.108
Industry FE	YES	YES
Year FE	YES	YES

Table 6

Channel test: information asymmetry for private targets

This table represents the relationship between the availability of private target's Glassdoor data and acquirer's cumulative abnormal returns (CARs) around the merger announcement date. The dependent variable is $CAR[-1,+1]$, the 3-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The independent variables from Columns 1, 2, and 3 are the indicators for the private target has at least one review in the 3-year, 2-year, or 1-year period before the merger announcement date, respectively. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
VARIABLES	CAR[-1, +1]	CAR[-1, +1]	CAR[-1, +1]
D(Glassdoor_3year)	0.016**		
	(2.23)		
D(Glassdoor_2year)		0.015**	
		(2.27)	
D(Glassdoor_1year)			0.014*
			(1.84)
Size_acq	-0.013***	-0.013***	-0.013***
	(-2.80)	(-2.79)	(-2.79)
Size_tar	-0.004	-0.004	-0.004
	(-0.87)	(-0.88)	(-0.88)
Leverage_acq	0.099*	0.099*	0.099*
	(1.72)	(1.72)	(1.73)
Leverage_tar	0.006	0.006	0.006
	(0.17)	(0.17)	(0.17)
Samestate	0.011	0.011	0.012
	(0.75)	(0.74)	(0.76)
Allcash	-0.020**	-0.020**	-0.020**
	(-2.32)	(-2.32)	(-2.30)
Allstock	-0.014	-0.014	-0.013
	(-0.42)	(-0.42)	(-0.39)
Deal value	0.009*	0.009*	0.008*
	(1.73)	(1.70)	(1.68)
Subsidiary	0.013**	0.013**	0.012*
	(2.01)	(2.00)	(1.96)
Observations	1,786	1,786	1,786
R-squared	0.116	0.116	0.116
Industry FE	YES	YES	YES
Year FE	YES	YES	YES

Table 7

Channel tests: Employee protection (Right-to-work law)

This table presents the staggered difference-in-difference results of acquirer's cumulative abnormal returns (CAR) on the pass of right-to-work laws in the state of public targets (Column 1) and in the state of private targets (Column 2). The dependent variable is $CAR[-1,+1]$, the 3-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The independent variable is the *Right-to-work*, which the indicator takes the value of one if the target firm is in the state that right-to-work law has passed at time t-1 before merger announcement and zero if the target firm is in the state that right-to-work law has not passed at time t-1. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
VARIABLES	CAR[-1, +1]	CAR[-1, +1]
	Public targets	Private targets
Right-to-work	0.007*	-0.017**
	(1.68)	(-2.46)
Size_acq	0.003**	-0.013***
	(2.05)	(-2.99)
Size_tar	0.005**	-0.003
	(1.98)	(-0.84)
Leverage_acq	0.001***	0.101*
	(4.58)	(1.79)
Leverage_tar	-0.002	0.005
	(-1.05)	(0.14)
Samestate	0.004	0.010
	(0.90)	(0.67)
Allcash	0.028***	-0.019**
	(5.74)	(-2.21)
Allstock	0.004	-0.001
	(0.75)	(-0.04)
Deal value	-0.007**	0.008*
	(-2.51)	(1.92)
Subsidiary		0.013**
		(2.04)
Observations	1,289	1,858
R-squared	0.151	0.114
Industry FE	YES	YES
Year FE	YES	YES

Table 8

Channel tests: SRI fund holdings

This table presents the cross-sectional heterogeneities of acquirer's cumulative abnormal returns (CARs) based on the median value of SRI mutual fund holdings of acquirer firms for public target sample in Columns 1 and 2, and for private target sample in Columns 3 and 4. We define SRI fund holding as the percent of shares held by non-index SRI mutual fund (without the flag "D"). The dependent variable is $CAR[-1,+1]$, the 3-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The independent variable is the *3-year MeanRate*, the 3-year average value of overall employee ratings on Glassdoor before the merger announcement date. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
VARIABLES	CAR[-1, +1]	CAR[-1, +1]	CAR[-1, +1]	CAR[-1, +1]
	Public target		Private target	
	High SRI	Low SRI	High SRI	Low SRI
3-year MeanRate	-0.016***	-0.003	0.010**	0.011*
	(-4.11)	(-0.52)	(2.14)	(1.72)
Size_acq	0.002	0.002	-0.016**	-0.011**
	(0.61)	(0.70)	(-2.08)	(-2.32)
Size_tar	0.010**	-0.009	-0.008	0.007**
	(2.21)	(-1.13)	(-1.14)	(2.25)
Leverage_acq	0.002	-0.006	0.161	0.059
	(0.15)	(-0.32)	(1.45)	(1.63)
Leverage_tar	-0.002	0.015	0.015	0.037
	(-0.21)	(0.96)	(0.37)	(0.51)
Samestate	0.009	0.006	0.020	0.007
	(1.19)	(0.66)	(0.77)	(0.60)
Allcash	0.027***	0.038***	-0.015	-0.025**
	(3.47)	(3.26)	(-1.10)	(-2.31)
Allstock	-0.002	-0.001	-0.065*	0.042
	(-0.23)	(-0.08)	(-1.74)	(0.68)
Deal value	-0.012***	0.006	0.011	0.004
	(-2.84)	(0.70)	(1.38)	(0.75)
Subsidiary			0.014*	0.010
			(1.83)	(1.09)
		(1)-(2)		(3)-(4)
Difference		-0.013*		-0.001
Observations	500	276	987	564
R-squared	0.284	0.211	0.178	0.251
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Table 9

Sentiment to M&A and the likelihood of completion

This table shows how employee's sentiment towards M&A in the public targets (Column 1) and in the private targets (Column 2) affects the likelihood of deal completion. The dependent variable is the indicator for whether the M&A deal is completed. The main independent variable is the interaction of sentiment towards M&A in the period between merger announcement date and completion date (withdrawn date for withdrawn deals) and the 1-year average value of employee rating before merger announcement date. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
VARIABLES	Completed	Completed
	Public targets	Private targets
Sent_M&A [Ann, Eff]*1-year MeanRate	0.093**	0.099**
	(2.19)	(2.17)
1-year MeanRate	-0.026	-0.007
	(-0.93)	(-0.53)
Sent_M&A [Ann, Eff]	0.002	-0.003
	(0.07)	(-0.15)
Size_acq	0.055***	0.002
	(3.24)	(0.34)
Size_tar	-0.003	0.000
	(-0.08)	(0.01)
Leverage_acq	-0.013	0.021
	(-0.16)	(0.33)
Leverage_tar	-0.108*	-0.064
	(-1.94)	(-0.47)
Samestate	0.007	-0.005
	(0.14)	(-0.28)
Allcash	0.002	0.038*
	(0.03)	(1.78)
Allstock	0.040	-0.004
	(0.66)	(-0.04)
Deal value	-0.040	-0.011
	(-0.91)	(-1.40)
Subsidiary		0.001
		(0.06)
Observations	454	502
R-squared	0.157	0.213
Industry FE	YES	YES
Year FE	YES	YES

Table 10

Sentiment to M&A and cumulative abnormal return

This table shows how employee's sentiment towards M&A in the public targets (Columns 1 and 3) and in the private targets (Columns 2 and 4) affects the acquirer's cumulative abnormal return (CAR). The dependent variable for Columns 1 and 2 is $CAR[-1,+1]$, the 3-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The dependent variable for Columns 3 and 4 is *CAR[Ann-2, Eff+2]*, the acquirer's CAR over the period between two days before the merger announcement date and two days after the merger effective date (completion date or withdrawn date for the withdrawn deals), in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The main independent variable is the interaction of sentiment towards M&A in the period between merger announcement date and effective date and the 1-year average value of employee rating before merger announcement date. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) CAR[-1, +1]	(2) CAR[-1, +1]	(3) CAR[Ann-2, Eff+2]	(4) CAR[Ann-2, Eff+2]
	Public targets	Private targets	Public targets	Private targets
Sent_M&A [Ann, Eff]*1-year MeanRate	0.011**	0.075*	0.033*	0.105**
	(2.05)	(1.73)	(1.87)	(2.18)
1-year MeanRate	-0.008**	0.000	-0.003	0.000
	(-2.16)	(0.04)	(-0.22)	(0.01)
Sent_M&A [Ann, Eff]	0.001	-0.044	-0.000	-0.019
	(0.17)	(-1.00)	(-0.00)	(-0.45)
Size_acq	0.004	-0.023**	0.005	-0.034*
	(1.25)	(-2.27)	(0.66)	(-1.82)
Size_tar	0.000	-0.007	0.008	-0.006
	(0.03)	(-1.08)	(0.47)	(-0.74)
Leverage_acq	0.003	0.130*	-0.001	0.132
	(0.76)	(1.70)	(-0.06)	(1.31)
Leverage_tar	0.048***	0.003	0.064	-0.147
	(2.68)	(0.03)	(0.78)	(-0.76)
Samestate	0.013	0.045	0.011	0.067
	(1.40)	(1.23)	(0.45)	(1.42)
Allcash	0.026***	-0.052**	0.007	-0.102***
	(2.65)	(-2.39)	(0.29)	(-2.83)
Allstock	-0.003	-0.134***	-0.011	-0.260
	(-0.30)	(-3.03)	(-0.36)	(-1.26)
Deal value	-0.004	0.013*	-0.020	0.011
	(-0.71)	(1.81)	(-1.13)	(0.73)
Subsidiary		-0.009		-0.036
		(-0.58)		(-1.03)
Observations	437	564	424	555
R-squared	0.232	0.300	0.220	0.226
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Appendix

Appendix Table 1
Variable definitions

Variables	Definitions	Data Sources
Glassdoor employee variables		
3-$yearMeanRate$	The 3-year average value of overall employee ratings of the target firm before the merger announcement date.	Glassdoor
2-$yearMeanRate$	The 2-year average value of overall employee ratings of the target firm before the merger announcement date.	Glassdoor
1-$yearMeanRate$	The annual average value of overall employee ratings of the target firm before the merger announcement date.	Glassdoor
$D(Glassdoor\_3year)$	An indicator takes the value of one is the target firm has at least one reviews over the 3-year before the merger announcement date. D(Glassdoor_2year) and D(Glassdoor_1year) are measured in the same way as D(Glassdoor_3year) with different time horizon on two-year and one-year, respectively.	Glassdoor
$Sent\_M\&A[Ann, Eff]$	The average value of sentiment towards M&A of the target firms in the period between merger announcement date and merger completion date (or withdrawn date for the withdrawn deals). The measurement of sentiment towards M&A is detailed in section 5.2.	Glassdoor
Firm characteristics		
CAR[-1, +1]	Acquirer cumulative abnormal returns, measured over 3 days [-1, +1] around the merger announcement date, in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60.	CRSP
CAR[-2, +2]	Acquirer cumulative abnormal returns, measured over 5 days [-2, +2] around the merger announcement date, in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60.	CRSP
$CAR[Ann\text{-}2, Eff + 2]$	Acquirer cumulative abnormal returns, measured over the period between two days before the merger announcement date and two days after the merger completion date (or withdrawal date for the withdrawn deals), in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60.	CRSP
$TargetCAR$[-1, +1]	Target cumulative abnormal returns, measured over 3 days [-1, +1] around the merger announcement date, in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60.	

(To be continued)

Variables	Definitions	Database
$TargetCAR$[-2, +2]	Target cumulative abnormal returns, measured over 5 days [-2, +2] around the merger announcement date, in which the expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60.	
$Synergy$[-1, +1]	Acquirer and target value-weighted average cumulative abnormal returns, measured over 3 days [-1, +1] around the merger announcement date for the acquirer and over 3 days [-1, +1] around the merger announcement date for the target. The expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60. The weight for acquirer (target) is the percent of the market value of acquirer (target) over the sum of the market value of acquirer and target.	CRSP
$Synergy$[-2, +2]	Acquirer and target value-weighted average cumulative abnormal returns, measured over 5 days [-2, +2] around the merger announcement date for the acquirer and over 5 days [-2, +2] around the merger announcement date for the target. The expected return is obtained from a three-factor model with the CRSP value-weighted index return as the market return. The parameters of the model are estimated over the period day -240 to day -60. The weight for acquirer (target) is the percent of the market value of acquirer (target) over the sum of the market value of acquirer and target.	CRSP
Abnormal Ind adj. ROA	The residual of regression of post-acquisition industry-adjusted three-year average ROA ($t+1$, $t+2$, $t+3$) on the pre-acquisition industry-adjusted three-year average ROA (t-3, t-2, t-1), following Chen et al. (2007) and Ben-David et al. (2020).	Compustat
$Premium\_1day$	The ratio of excess offer price to target stock price 1 day prior to the merger announcement date.	CRSP and SDC platinum
$Premium\_1week$	The ratio of excess offer price to target stock price 1 week prior to the merger announcement date.	CRSP and SDC platinum
$Size\_acq$	Acquirer size. Measured as the natural logarithm of acquirer's total assets at the fiscal year-end before the acquisition announcement.	Compustat
$Size\_tar$	Target size. Measured as the natural logarithm of target's total assets at the fiscal year-end before the acquisition announcement for the public target. Measured as the natural logarithm of target's total sales at the fiscal year-end before the acquisition announcement for the private target.	Compustat and NETS
$Leverage\_acq$	Acquirer's pre-acquisition leverage. Measured as the sum of long-term debt and short-term debt, deflated by the sum of long-term debt, short-term debt, and book equity at the fiscal year-end before the acquisition announcement.	Compustat

(To be continued)

Variables	Definitions	Database
Leverage_tar	Target's pre-acquisition leverage. Measured as the sum of long-term debt and short-term debt, deflated by the sum of long-term debt, short-term debt, and book equity at the fiscal year-end before the acquisition announcement for the public target. Measured as one minus PayDex score divided by 100 for the private target. PayDex score ranges from 1 to 100, where a higher number represents a greater likelihood that a business will pay its debts on time.	Compustat and NETS
Samestate	An indicator variable that takes the value of 1 if the headquarter of acquirer firm and the headquarter of target firm in the same state and 0 otherwise.	Compustat and NETS
SRI fund holding	The percent of the shares held by Socially Responsible Investment (SRI) mutual fund in the acquirer firm. SRI mutual fund is defined as if the fund name contains any of the following phrases: ESG, wise, clean, green, carbon, social, climate, equality, diversity, conscious, leadership, environment, organics, alternative energy, sustainable, women, SRI, sustainability, impact, gender, tobacco-free, customer, womenomics, LGBTQ, socially responsible, thinkgreen, decarbonization, tribal inclusion, ethical, solar, and wind energy, following Farroukh et al. (2023). We exclude passive funds flagged as index funds by dropping those with the flag "D", following Appel et al. (2019). The left SRI funds are defined as the active SRI mutual funds.	CRSP mutual fund database
Deal characteristics		
Allcash	An indicator variable that takes the value of 1 if the deal is fully paid by cash and 0 otherwise.	SDC platinum
Allstock	An indicator variable that takes the value of 1 if the deal is fully paid by shares and 0 otherwise.	SDC platinum
Subsidiary	A dummy variable that takes the value of 1 if the target is classified as a subsidiary by SDC and 0 otherwise.	SDC platinum
Deal value	The Logarithm of the M&A deal value paid by the acquirer.	SDC platinum
Completed	An indicator variable that takes the value of 1 if the M&A deal is a completed deal (STATUS="Completed") and 0 otherwise.	SDC platinum

Appendix Table 2

Robustness test: change the measure of acquirer's CAR

This table presents the results from the regression of the acquirer's cumulative abnormal returns (CARs) around the merger announcement date on Glassdoor employee ratings. Panel A presents the results of public target sample. Panel B presents the results of private target sample. The dependent variable is $CAR[-2,+2]$, the 5-day window CAR based on Fama-French three-factor model using CRSP value-weighted index as market return. The independent variable are the same as Table 2. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
VARIABLES	CAR[-2, +2]	CAR[-2, +2]	CAR[-2, +2]
Panel A: Public targets			
3-year MeanRate	-0.010***		
	(-2.69)		
2-year MeanRate		-0.011***	
		(-2.76)	
1-year MeanRate			-0.009**
			(-2.47)
Size_acq	0.005**	0.006**	0.006**
	(2.22)	(2.35)	(2.28)
Size_tar	0.005	0.005	0.005
	(1.18)	(1.20)	(1.35)
Leverage_acq	0.004	0.003	0.002
	(0.28)	(0.23)	(0.14)
Leverage_tar	0.004	0.007	0.008
	(0.37)	(0.68)	(0.79)
Samestate	0.007	0.007	0.008
	(1.08)	(1.08)	(1.12)
Allcash	0.027***	0.027***	0.024***
	(3.83)	(3.77)	(3.22)
Allstock	-0.003	-0.004	-0.006
	(-0.45)	(-0.46)	(-0.71)
Deal value	-0.008*	-0.008**	-0.009**
	(-1.89)	(-1.97)	(-2.06)
Observations	790	766	723
R-squared	0.186	0.188	0.192
Industry FE	YES	YES	YES
Year FE	YES	YES	YES
Panel B: Private targets			
3-year MeanRate	0.010**		
	(2.41)		
2-year MeanRate		0.011**	
		(2.15)	

(To be continued)

1-year MeanRate			0.011**
			(2.56)
Size_acq	-0.014***	-0.014**	-0.014**
	(-2.64)	(-2.50)	(-2.48)
Size_tar	-0.003	-0.003	-0.004
	(-0.66)	(-0.75)	(-0.87)
Leverage_acq	0.100	0.105	0.112
	(1.57)	(1.58)	(1.52)
Leverage_tar	-0.002	0.011	-0.005
	(-0.06)	(0.29)	(-0.13)
Samestate	0.011	0.011	0.016
	(0.68)	(0.66)	(0.89)
Allcash	-0.021**	-0.025**	-0.024**
	(-2.12)	(-2.40)	(-2.25)
Allstock	-0.039	-0.049	-0.072*
	(-1.04)	(-1.32)	(-1.88)
Subsidiary	0.022***	0.022***	0.021***
	(2.97)	(2.84)	(2.87)
Deal value	0.008	0.008	0.008
	(1.46)	(1.40)	(1.33)
Observations	1,566	1,512	1,391
R-squared	0.122	0.128	0.143
Industry FE	YES	YES	YES
Year FE	YES	YES	YES

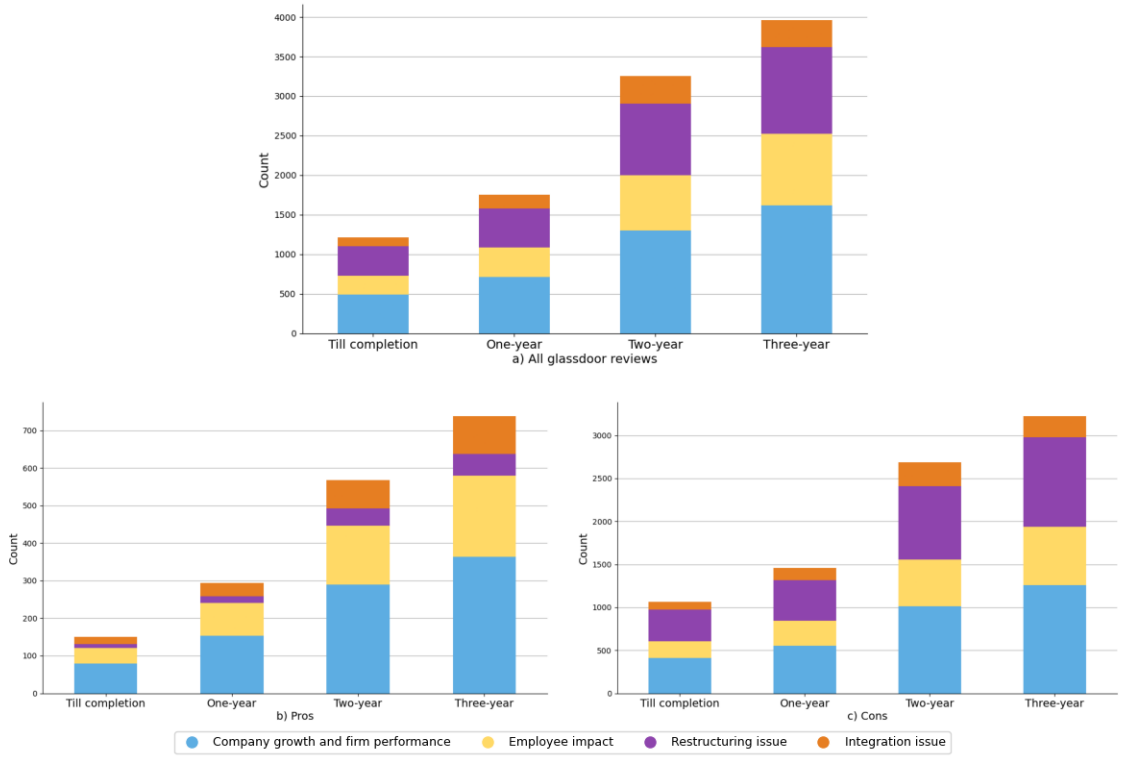
(To be continued)

Appendix Table 3

Robustness test: change the measure of *Synergy*

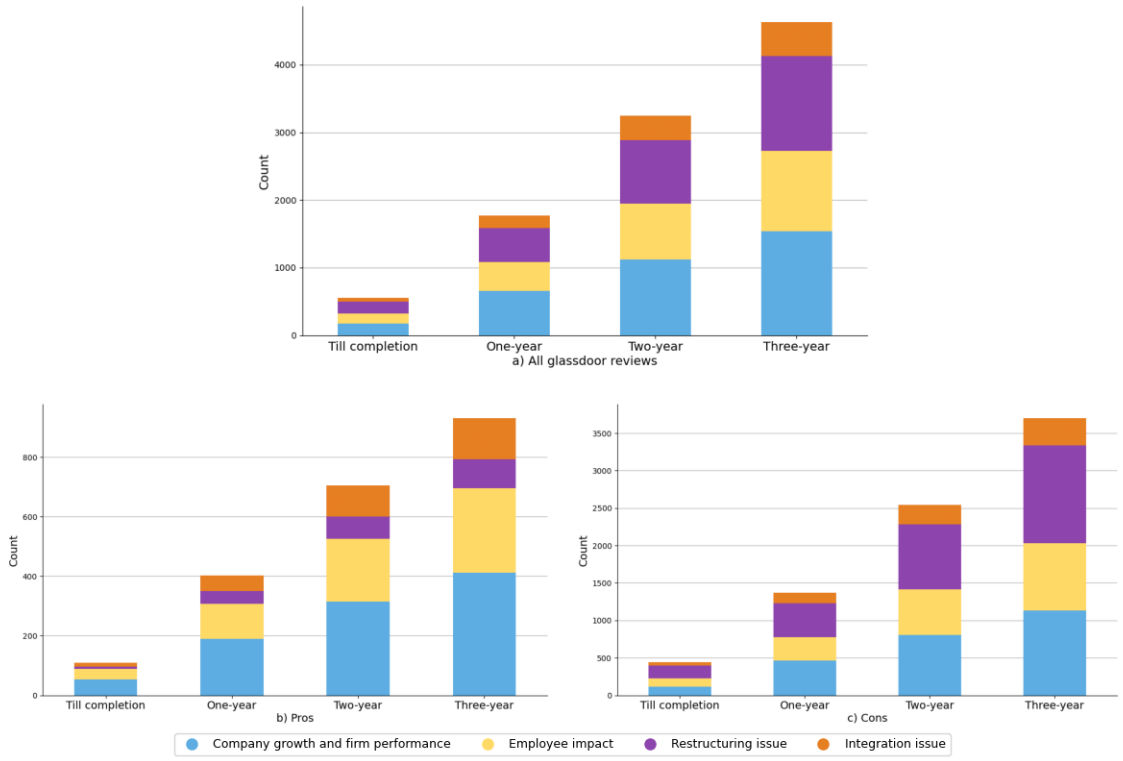
This table presents the results from the regression of acquirer-target combined announcement cumulative abnormal returns on employee ratings (*3-year MeanRate*) for public targets. The dependent variable is the value-weighted combined announcement cumulative abnormal return (CAR) in the 5-day window [-2, +2] based on the three-factor model around the merger announcement date for acquirer and public target. All financial data of acquirer and target firms are measured in the fiscal year-end before the merger announcement date. Control variables are added same as Table 2 and defined in Appendix Table 1. Industry FE denotes acquirer industry fixed effects. Year FE denotes year fixed effects. Standard errors are clustered within the acquiring firm. P-values are in parentheses. ***, **, * indicate the significance of parameter estimates at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
VARIABLES	Synergy[-2, +2]	Synergy[-2, +2]	Synergy[-2, +2]
3-year MeanRate	-0.009**		
	(-2.32)		
2-year MeanRate		-0.009**	
		(-2.39)	
1-year MeanRate			-0.007*
			(-1.91)
Size_acq	-0.010***	-0.010***	-0.009***
	(-4.09)	(-3.83)	(-3.58)
Size_tar	0.011**	0.011**	0.013***
	(2.38)	(2.35)	(2.70)
Leverage_acq	0.023	0.022	0.024
	(1.49)	(1.42)	(1.43)
Leverage_tar	-0.001	0.001	0.003
	(-0.14)	(0.16)	(0.30)
Samestate	0.007	0.008	0.007
	(1.12)	(1.13)	(1.02)
Allcash	0.022***	0.022***	0.021***
	(2.96)	(2.88)	(2.66)
Allstock	-0.015*	-0.016*	-0.016*
	(-1.75)	(-1.77)	(-1.78)
Deal value	-0.002	-0.002	-0.004
	(-0.41)	(-0.48)	(-0.71)
Observations	777	754	707
R-squared	0.210	0.214	0.219
Industry FE	YES	YES	YES
Year FE	YES	YES	YES



Appendix Figure 1
Time series of M&A related categories – public targets.

This figure presents the frequency of the four M&A related categories in four noteworthy periods for the sample of public targets. This first bar represents the period between the merger announcement date and the merger completion date (or withdraw date for the withdrawal deals). The second to fourth bar represents the one-year, two-year, or three-year period after the merger announcement date, respectively. Counts are based on the number of M&A sentences assigned to subtopics within that category. All measures are derived from the sample that has at least one M&A sentence in each period. The number of firms that have at least one M&A sentence in the "Till completion" period, one-year, two-year, and three-year is 189, 369, 459, and 508, respectively.



Appendix Figure 2

Time series of M&A related categories – private targets.

This figure presents the frequency of the four M&A related categories in four noteworthy periods for the sample of private targets. This first bar represents the period between the merger announcement date and the merger completion date (or withdraw date for the withdrawal deals). The second to fourth bar represents the one-year, two-year, or three-year period after the merger announcement date, respectively. Counts are based on the number of M&A sentences assigned to subtopics within that category. All measures are derived from the sample that has at least one M&A sentence in each period. The number of firms that have at least one M&A sentence in the "Till completion" period, one-year, two-year, and three-year is 150, 493, 679, and 798, respectively.